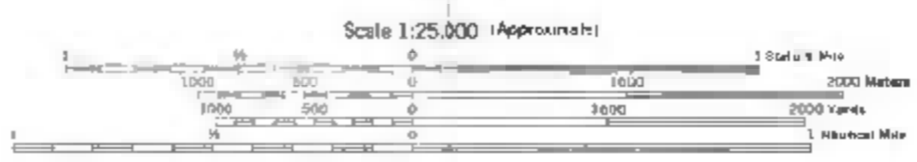


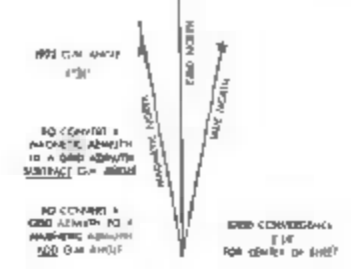


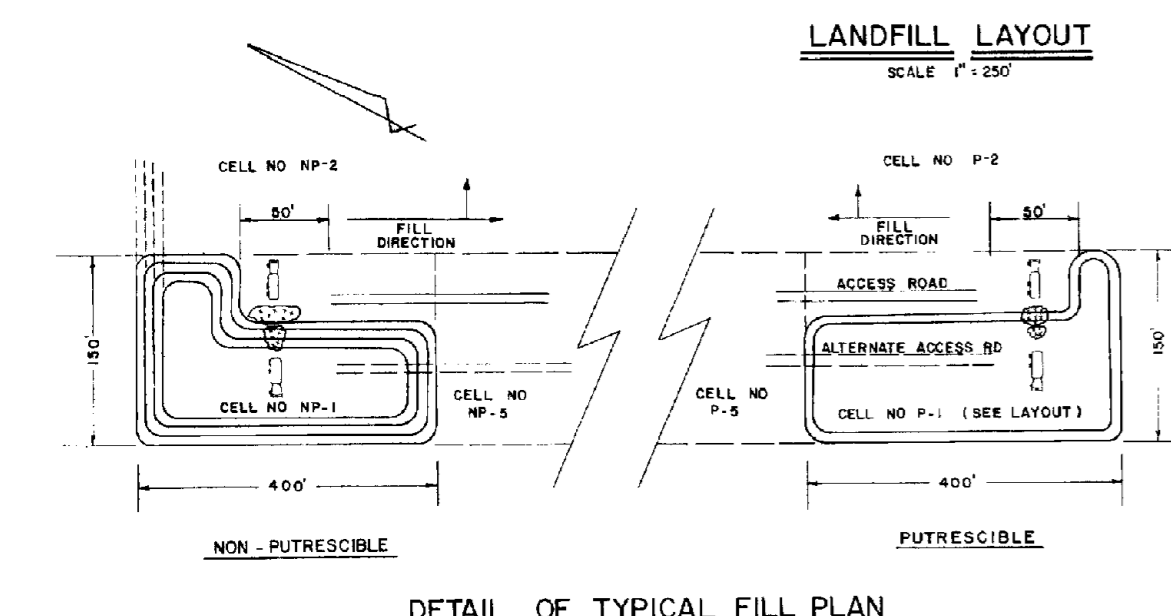
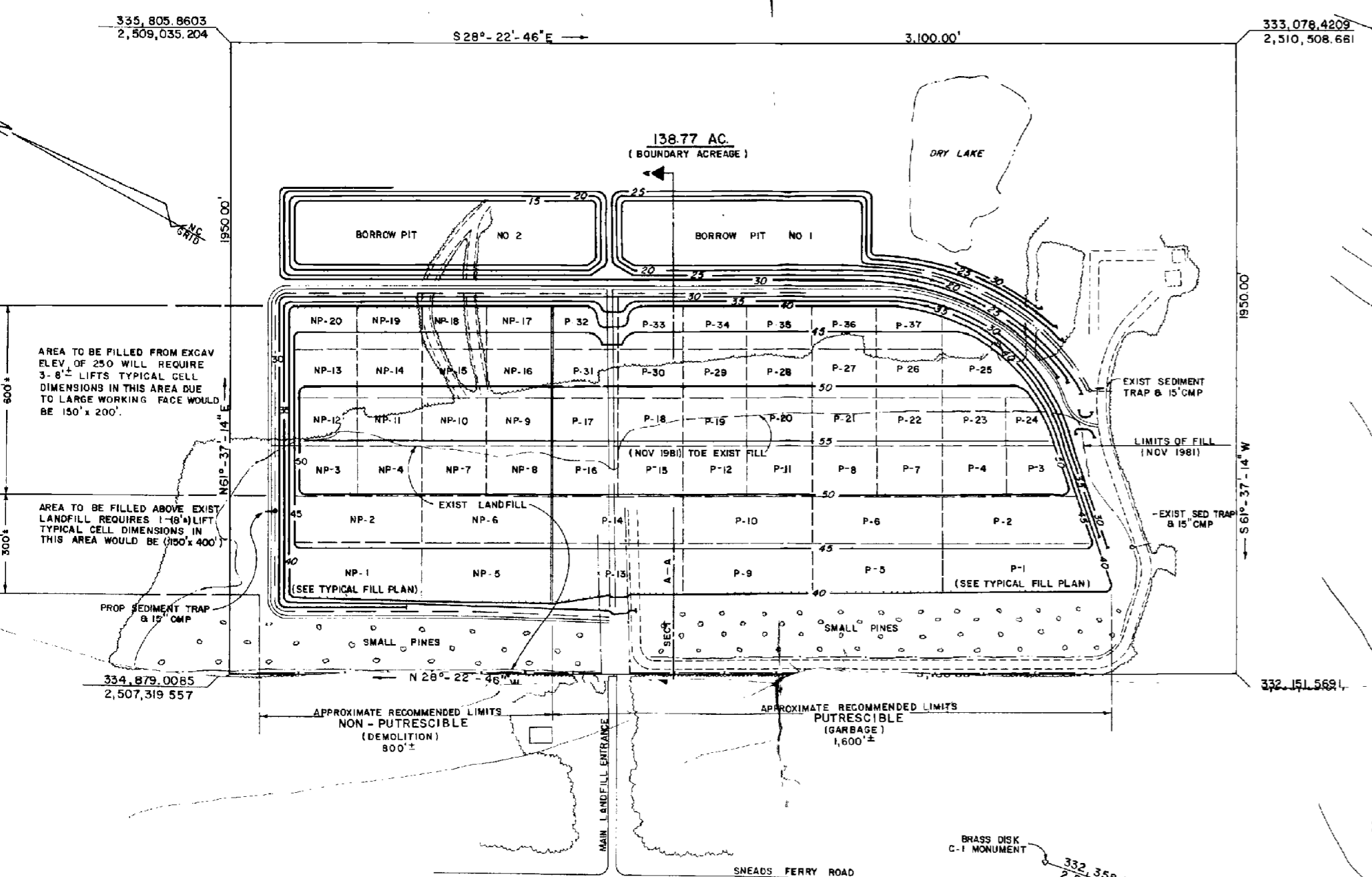
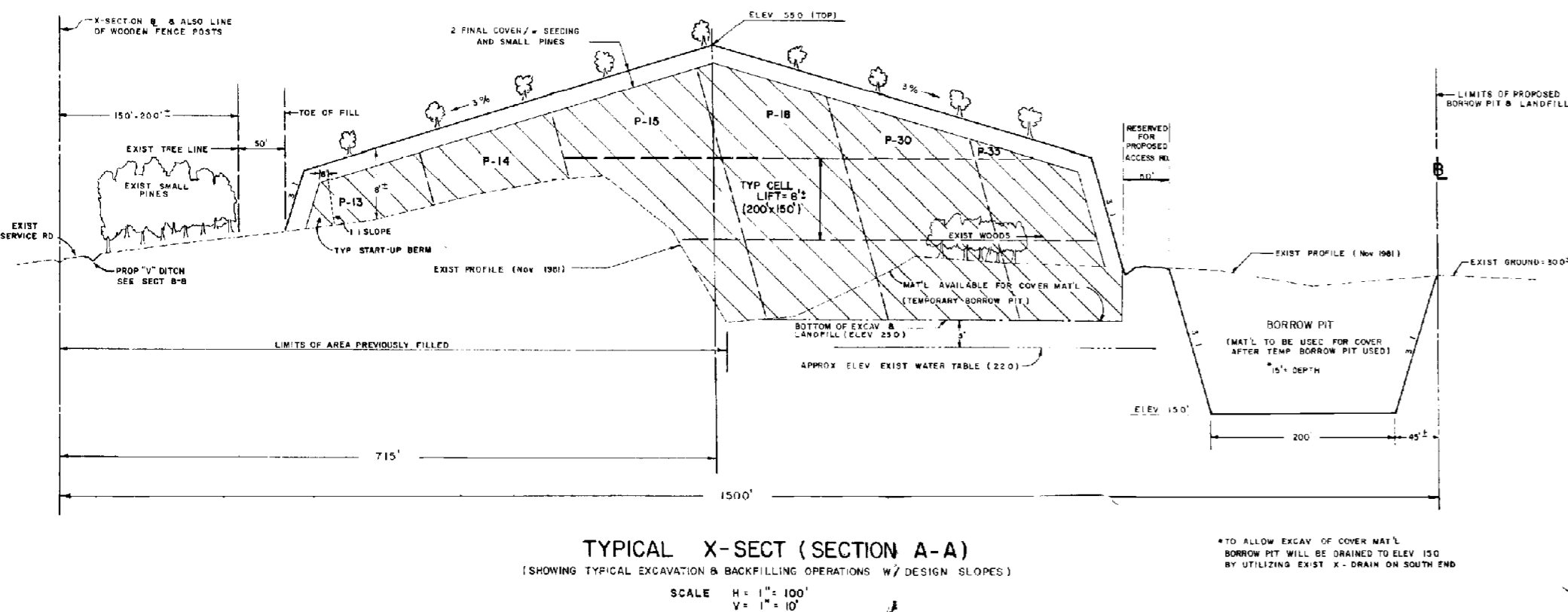
EDITION 2-USMC

Prepared by 2d Topographic Squadron, 1st Engineer Battalion, Force Troops, FMARMC, Camp Lejeune, N.C. 28542. Aerial photography controlled by base average 1:10,000. Aerial photography February 1972. Aerial coastal hydrography compiled from H. O. Chart 11017-50B.



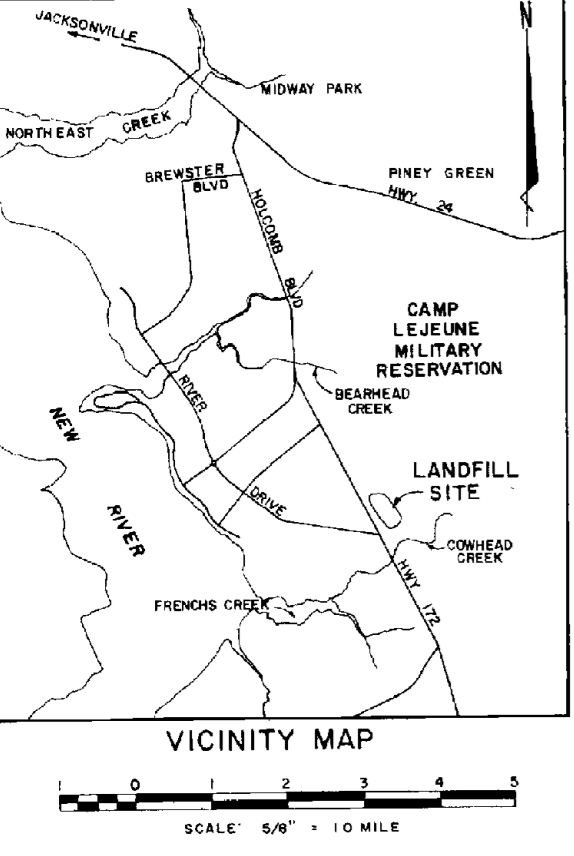
BLACK NUMBERED LINES INDICATE THE 1000 METER UNIVERSAL TRANSVERSE MERCATOR GRID ZONE IS THE EAST THREE DIGITS OF THE GRID NUMBERS ARE OMITTED





GENERAL NOTES:

- ELEVATION DATUM IS BASED ON A STANDARD BRASS DISC STAMPED C-1 IN TOP OF 12 INCH SQUARE CONCRETE MONUMENT 3 INCHES BELOW GROUND LEVEL. STATION IS LOCATED 16.2 METERS EAST OF INTERSECTION SWEADS FERRY RD. AND MAIN SERVICE RD. AND IS 25.0 METERS SOUTH OF POWER POLE #586. (ELEV = 29.890)
- TOPOGRAPHIC DATA WAS COMPILED FROM FIELD SURVEYS CONDUCTED BY McDOWELL-JONES, P.A., 2D TOPOGRAPHIC PLATON AT CAMP LEJEUNE, AND AERIAL PHOTOGRAPHY PROVIDED BY LANDMARK ENGINEERING.
- ⊙ DENOTES TEMPORARY BENCH MARKS ESTABLISHED BY McDOWELL-JONES, P.A.



NOTES ON LANDFILL OPERATION AND LANDFILL CHARACTERISTICS:

- LANDFILL HAS APPROXIMATELY A 10 YEAR CAPACITY AS PRESENTLY SHOWN ON THESE DRAWINGS. CAPACITY ESTIMATED FROM DATA FROM "SOLID WASTE MANAGEMENT MASTER PLAN" PREPARED BY SCS ENGINEERS, SEPTEMBER 1977. ANTICIPATED 15 YEAR SOLID WASTE FLOW IS 674,960 TONS USING A DENSITY OF 1200 LBS/CU YD. COVER MATERIAL RATIO OF 2:1 AND 50% COMINGLE. THE ESTIMATED TOTAL LANDFILL VOLUME IS 871 ACRES. 1520' (697 AC-FT OF SOLID WASTE AND 348 AC-FT OF COVER MATERIAL WITH 50% COMINGLE).
- GROUND WATER ELEVATION ESTIMATED AT 22.0.
- BOTTOM OF FUTURE LANDFILL SHOULD BE ELEVATION 25.00 OR HAVE A MINIMUM 3 FOOT SEPARATION FROM GROUNDWATER.
- NEW CELLS ARE TO BE DEVELOPED AS SHOWN ON LANDFILL LAYOUT PLAN AND RELATED DETAILS. SOLID WASTE SHALL BE RESTRICTED TO THE SMALLEST AREA FEASIBLE AND COMPACTED AS DENSELY AS PRACTICAL INTO CELLS. A PROPER SLOPE ON THE WORKING FACE SHALL BE MAINTAINED. SOLID WASTE SHALL BE COVERED AFTER EACH DAY OF OPERATION, WITH A COMPACTED LAYER OF AT LEAST SIX INCHES OF SUITABLE COVER. WITHIN ONE MONTH AFTER COMPLETION OF A CELL, THE AREA SHALL BE COVERED WITH AT LEAST TWO FEET OF SUITABLE COMPACTED EARTH ADEQUATELY SLOPED TO ALLOW SURFACE WATER RUNOFF IN A CONTROLLED MANNER WITHOUT EXCESSIVE OFF-SITE EROSION AND OFF-SITE SILTATION.
- TEMPORARY BORROW PIT UNDER PROPOSED LANDFILL SHOULD BE EXHAUSTED BEFORE NEW BORROW PIT IS INITIATED.

6) SEEDING SHOULD BE DONE AS SOON AS PRACTICAL AFTER A CELL IS COMPLETED AND IN ANY OTHER DISTURBED AREA THAT EROSION IS A PROBLEM. PROPOSED SEEDING DATA:

NAME	RATE/ACRE	PLANTING TIME
1. BERNUDA GRASS	8-12 LBS.	APRIL-JULY
2. SERICEA LESPEDEZA (SCARIFIED)	40-50 LBS.	MARCH-JUNE
WEeping LOVEGRASS	4-5 LBS.	SEPT.-DEC.
3. KYE COMMON BERNUDA (UNHULLED)	10 LBS.	
SERICEA LESPEDEZA (UNHULLED-UNSCARIFIED)	60-70 LBS.	

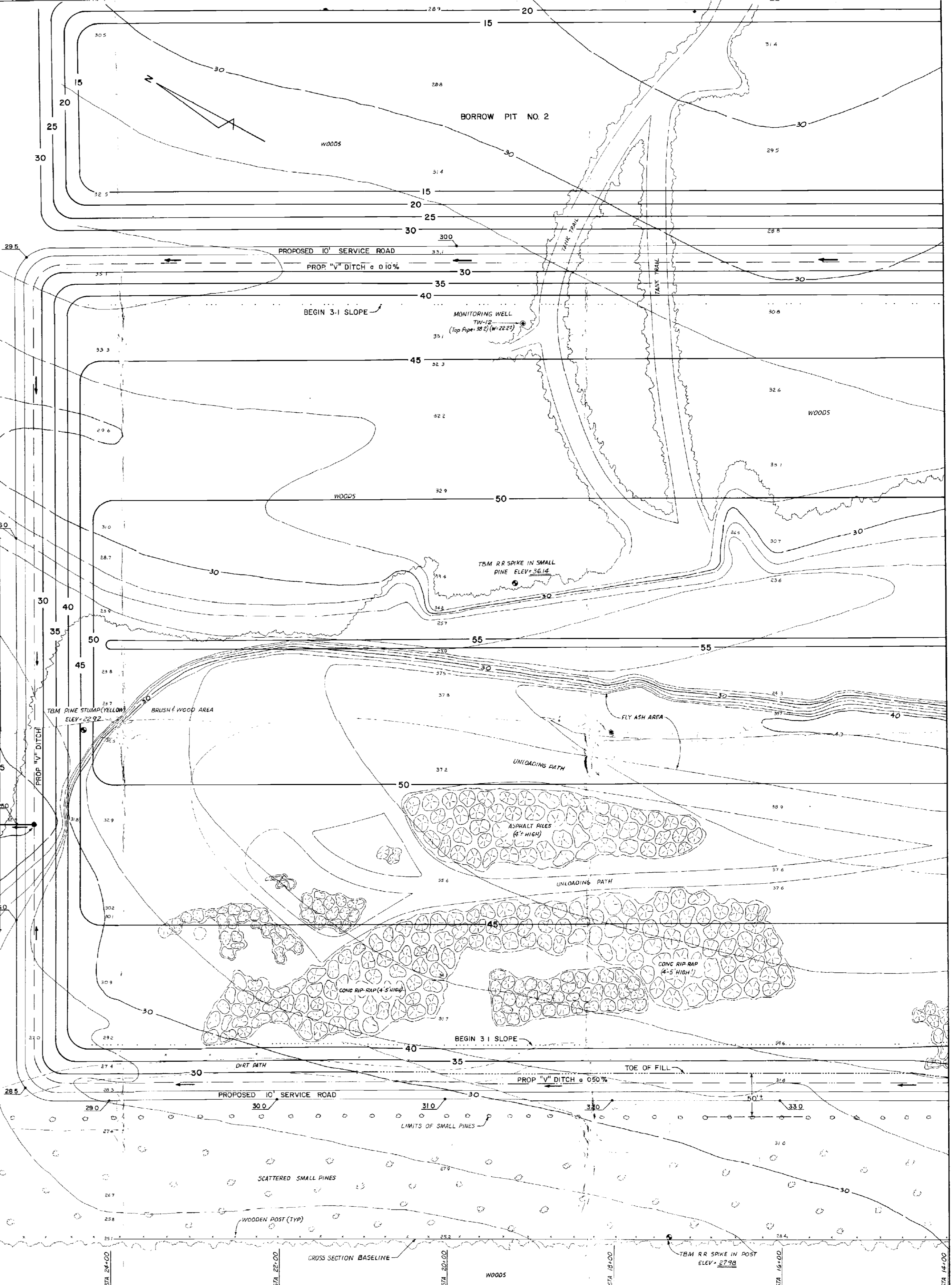
LIME: 1 TON/ACRE; FERTILIZER: 10-10-10 - 800 LBS. ACRE

LOBLOLLY PINES CONTINUE TO BE PLANTED ON THE FINISHED SURFACE AFTER SEVERAL YEARS OF ESTABLISHING GRASS. THE EXISTING SOUTH FACE HAS STEEP SLOPES AND NEEDS TO BE FLATTENED SOME AND/OR HAVE ESTABLISHED PERMANENT VEGETATION. THE USE OF LEAVES AS MULCH FOR TEMPORARY STABILIZATION SHOULD BE MAXIMIZED.

7) AN ATTENDANT SHALL BE ON DUTY, AT THE SITE, AT ALL TIMES WHILE IT IS OPEN TO ASSURE COMPLIANCE WITH OPERATIONAL REQUIREMENTS AND TO PREVENT THE ENTRANCE OF HAZARDOUS WASTE ONTO THE SITE.

8) SURFACE WASTE SHALL BE DIVERTED FROM THE OPERATION AREA.

9) SOLID WASTE SHALL NOT BE DISPOSED OF IN WATER.
10) OPEN BURNING OF SOLID WASTE IS PROHIBITED.
11) SPOILED FOODS, ANIMAL CARCASSES, ABATTOIR WASTE, HATCHERY WASTE AND OTHER ANIMAL WASTE DELIVERED TO THE DISPOSAL SITE BE KEPT SEPARATE FROM OTHER SOLID WASTE, AND SHALL BE COMPACTED AND COVERED IMMEDIATELY.
12) NO HAZARDOUS OR LIQUID WASTES SHALL BE ACCEPTED OR DISPOSED OF IN A SANITARY LANDFILL EXCEPT AS MAY BE PERMITTED BY THE DIVISION OF HEALTH SERVICES.
13) APPROPRIATE METHODS SUCH AS FENCING AND DIVING SHALL BE PROVIDED TO CONFINE MATERIAL SUBJECT TO BE BLOWN BY THE WIND WITHIN THE AREA.



90% SUBMITTAL

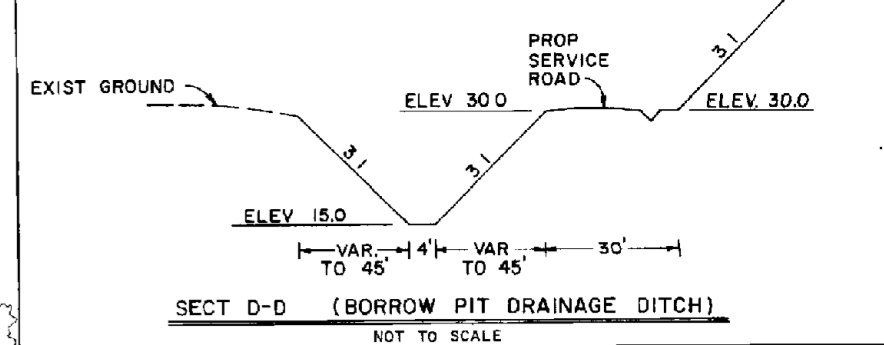
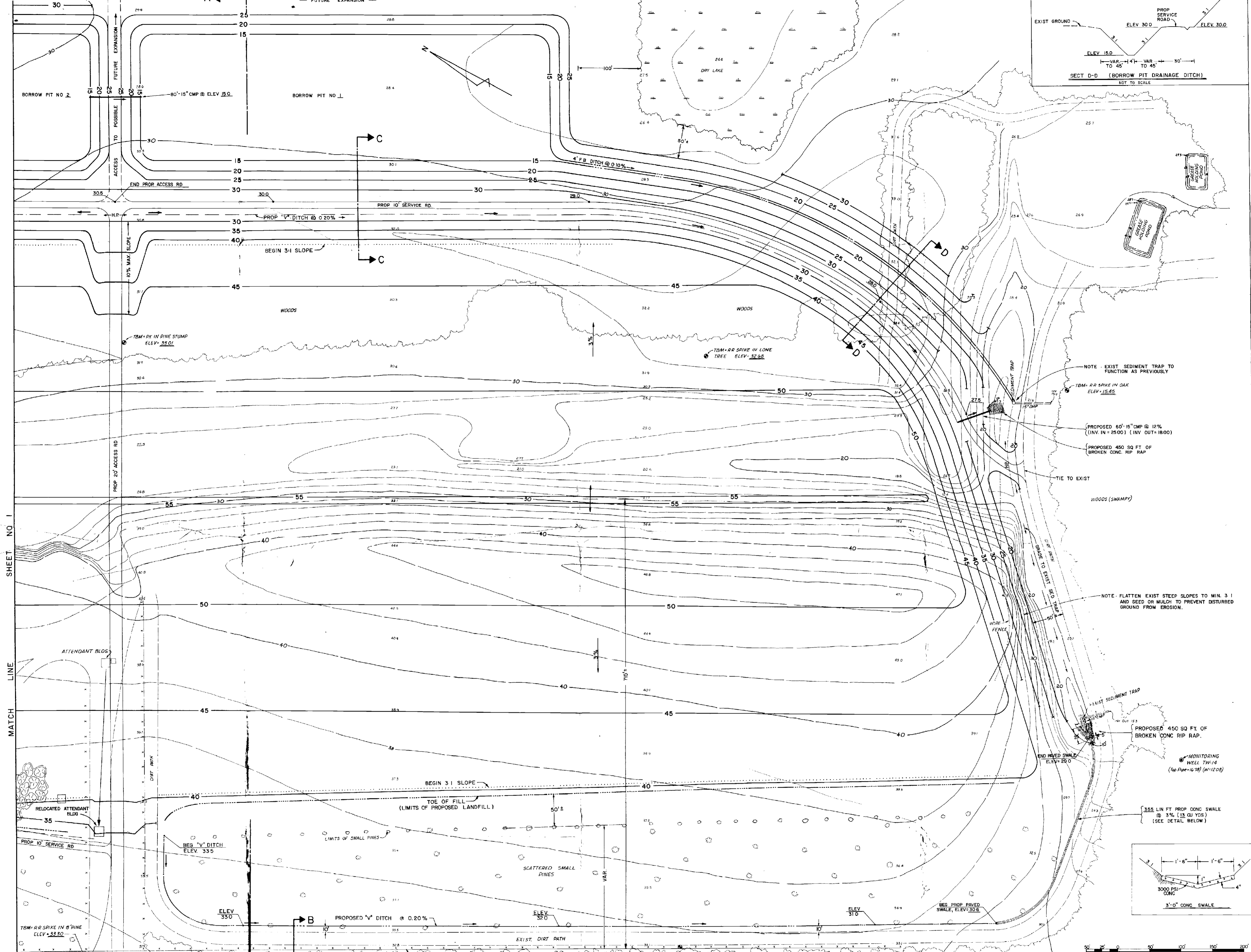
1

McDOWELL-JONES, P.A.		ENGINEERS - SURVEYORS	
ELIZABETH CITY, NORTH CAROLINA		MARL STATION	
DES. BY	DR. CHK.	M.C.B.	CAMP LEJEUNE, NORTH CAROLINA
PROJ. MGR.	CH. ENGR.		
SUBMITTED BY	DATE		
FILE NUMBER	PRINCIPAL		
EFD	APPV.		
HD	DIR.		
APPROVED	DATE	SIZE	CODE IDENT NO.
OFFICER IN CHARGE			NAVFAC DRAWING NO.
APPROVED	DATE		CONSTR CONTR NO.
FOR EFD FOR COMMANDER NAVFAC		SCALE	" = 50'
		SPEC	11-16

SANITARY LANDFILL
"SITE PLAN"

00454A02X

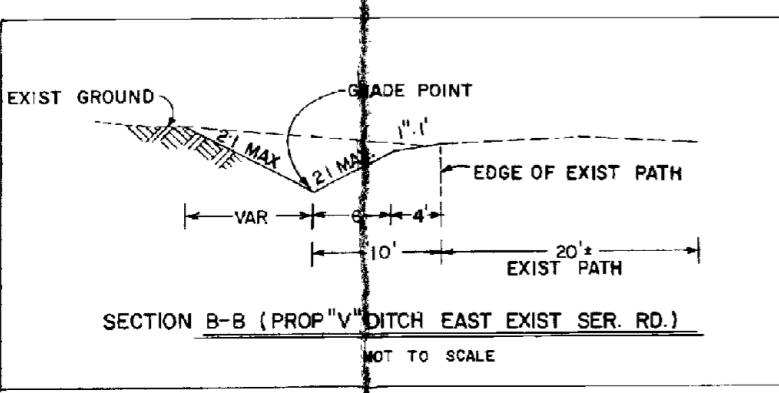
SHEET NO. 2
MATCH LINE



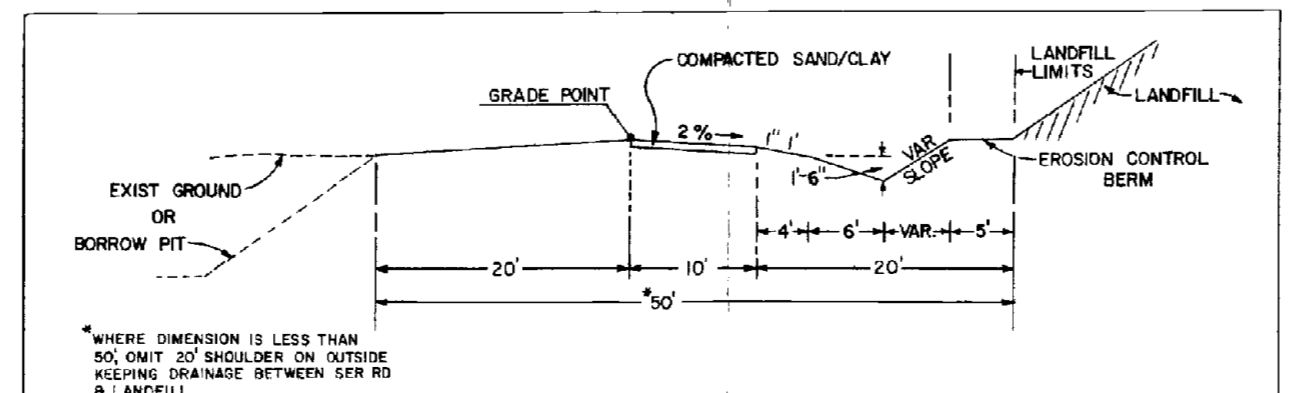
SECT D-D (BORROW PIT DRAINAGE DITCH)
NOT TO SCALE

MATCH LINE SHEET NO. 1

SIX FEET TO LANDFILL + MAIN ENTR TO LANDFILL



SECTION B-B (PROP V' DITCH EAST EXIST SER. RD.)
NOT TO SCALE



SECTION C-C (PROP SERVICE ROAD)
NOT TO SCALE

LEGEND	
ITEM	PROPOSED
CONTOUR LINE	30
SPOT ELEVATION	22.5
DRAINAGE DITCH	
PIPE CULVERT	
MONITORING WELL	

90% Submittal

2

McDOWELL - JONES, PA
ENGINEERS - SURVEYORS
ELIZABETH CITY, NORTH CAROLINA

NAVY NAVAL FACILITIES ENGINEERING COMMAND
SANITARY DIVISION
CAMP LEJEUNE, NORTH CAROLINA

SANITARY LANDFILL
"SITE PLAN"

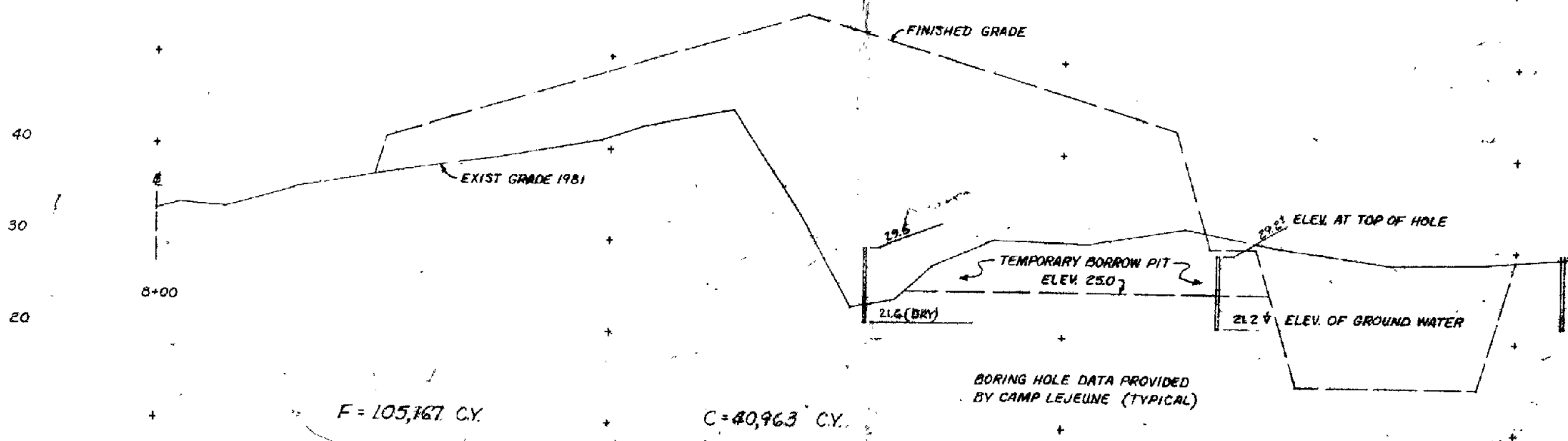
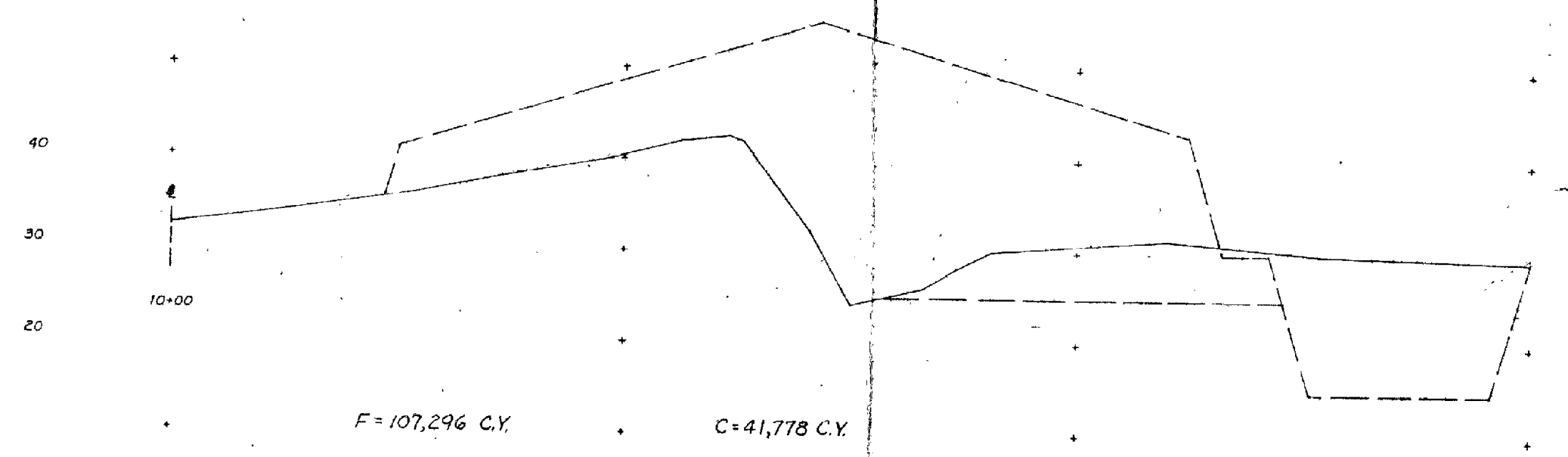
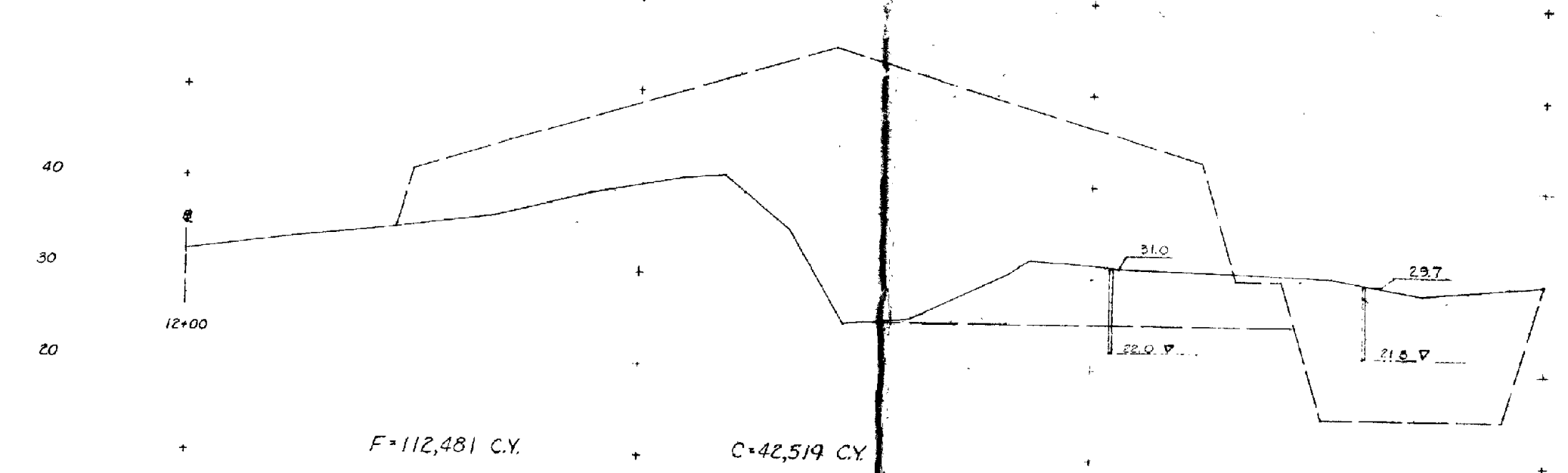
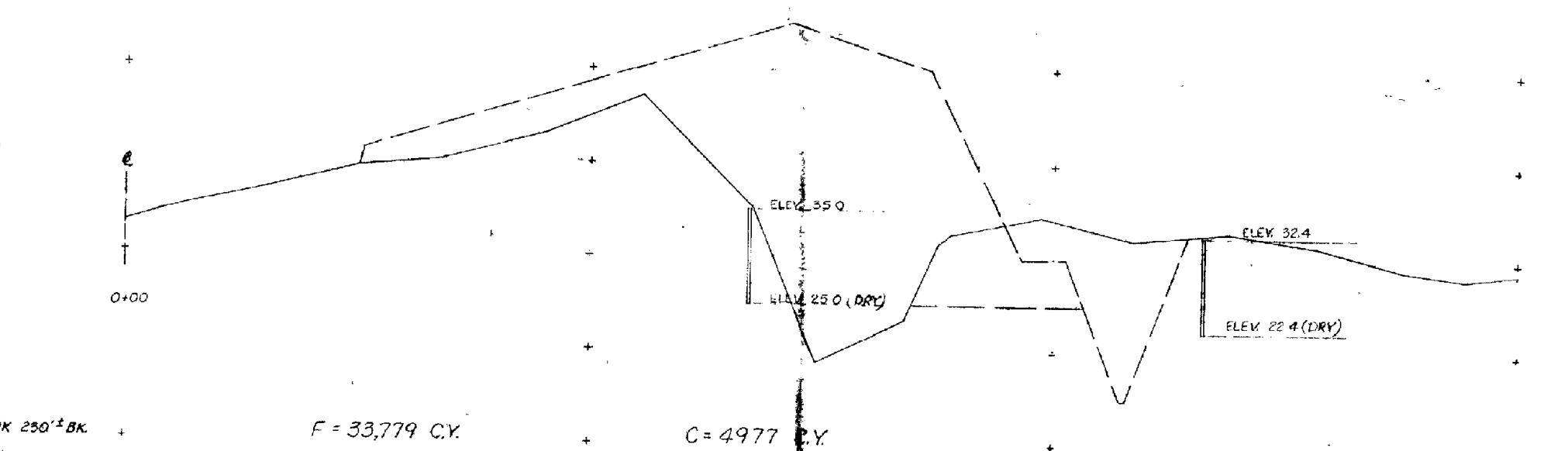
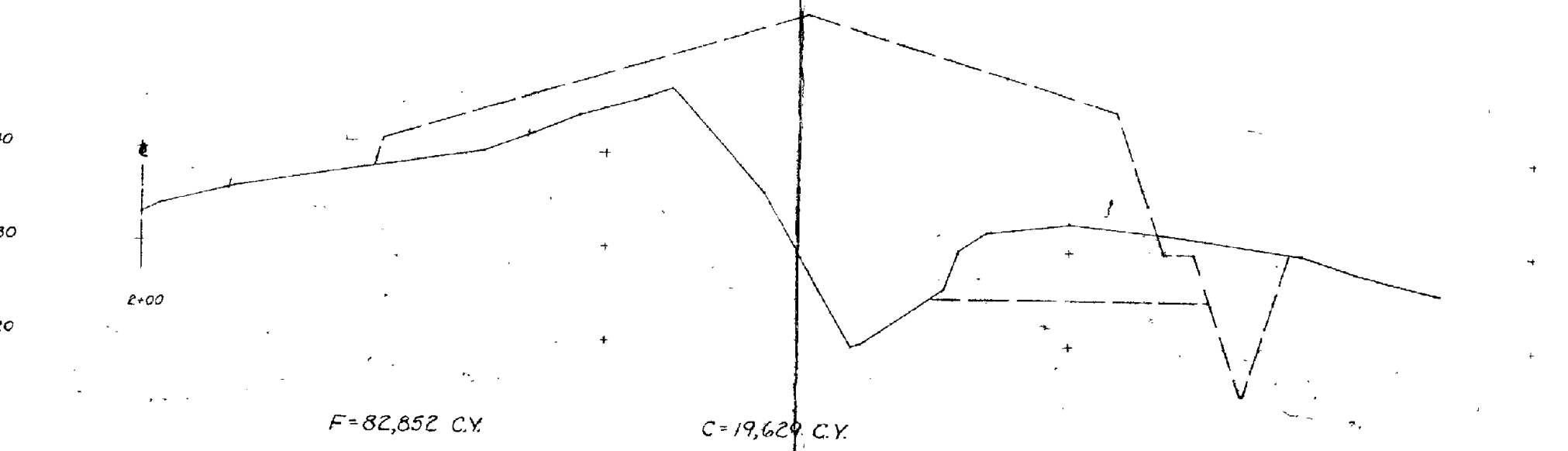
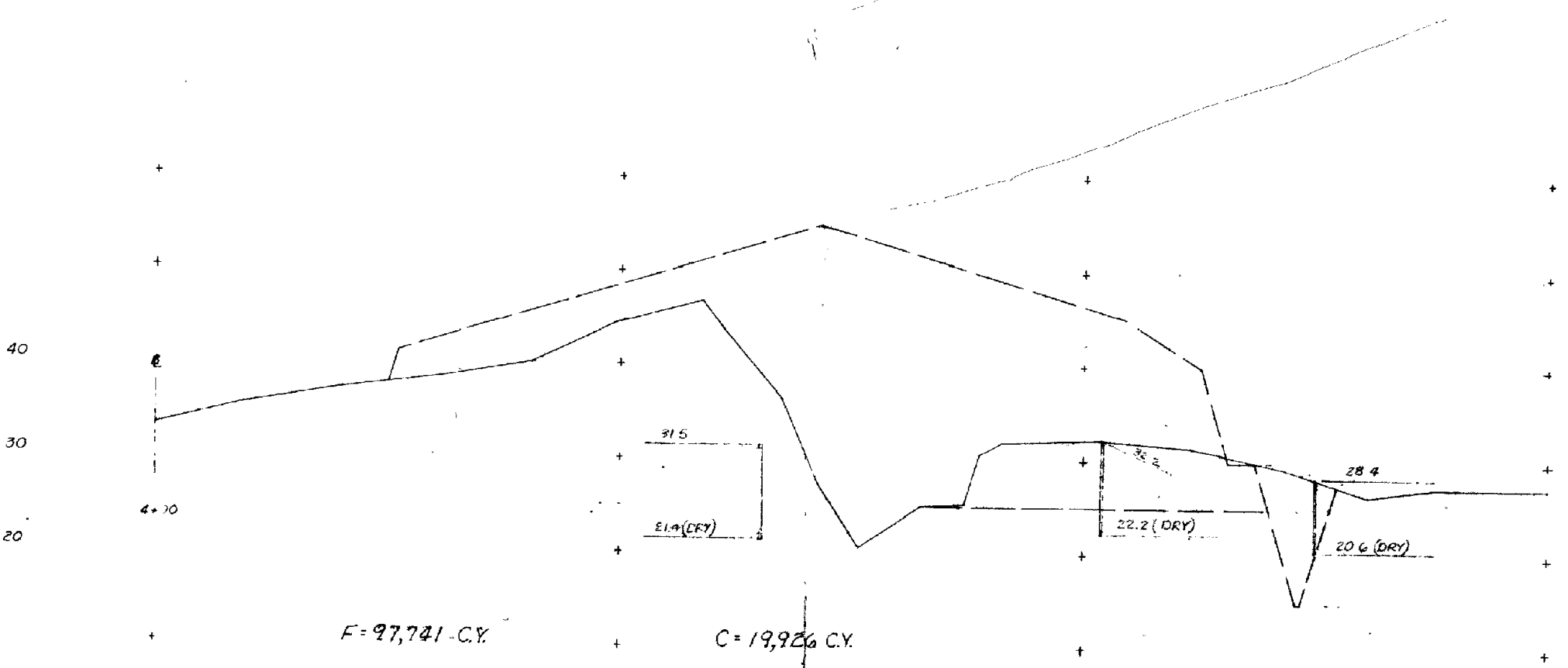
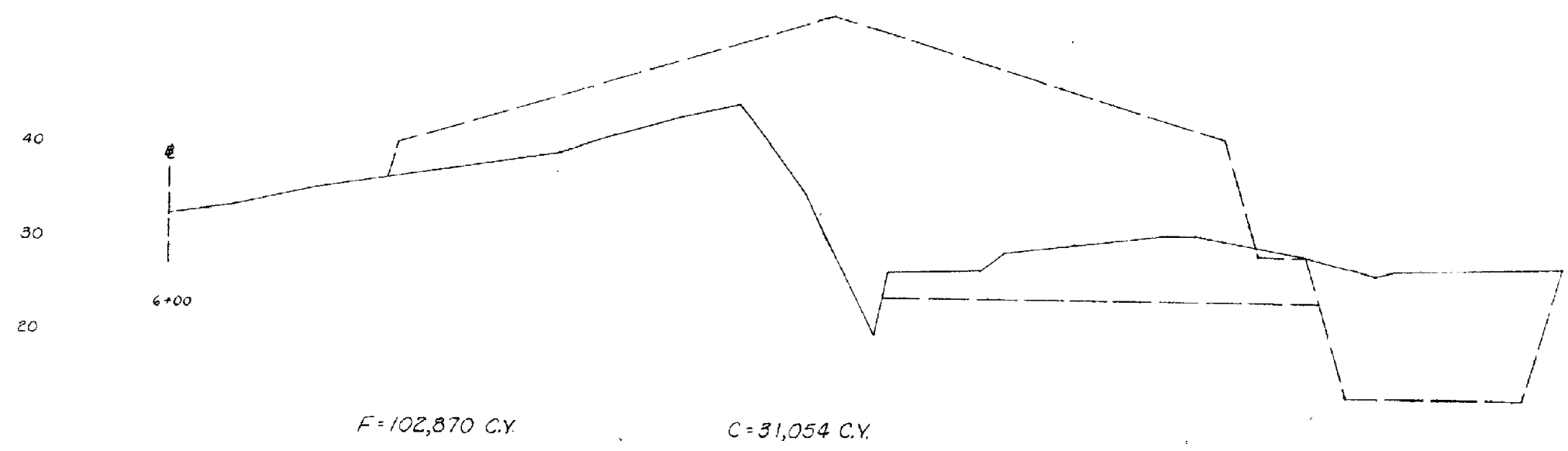
APPROVED	DATE	SIZE	CODE IDENT NO	NAVFAC DRAWING NO
OFFICER IN CHARGE	DATE			
APPROVED	DATE			

SCALE 1" = 50' SPEC

SHEET OF

EFD DWG NO

0045403X



SUMMARY OF CALCULATIONS

- ESTIMATED AVAILABLE LANDFILL VOLUME = $E.F. = 1,464,420 \text{ C.Y.} = 908 \text{ AC. FT.}$
- ESTIMATED AVAILABLE COVER MATERIAL = $E.C. = 815,684 \text{ C.Y.} = 320 \text{ AC. FT.}$
- ESTIMATED SOLID WASTE FLOW FOR NEXT 15 YEARS IS 871 AC.-FT.
COVER NEEDED 548 AC.-FT.
ASSUME: SOLID WASTE DENSITY = 1200 LBS./CU.YD.
COVER MATERIAL RATIO = 2:1 AND 50% COMINGLE

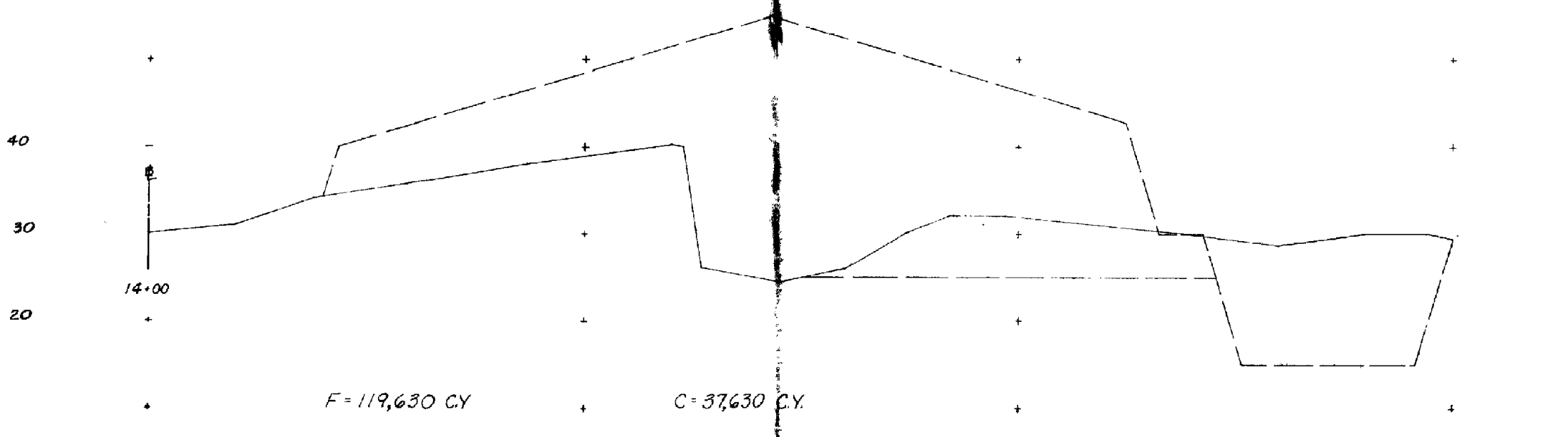
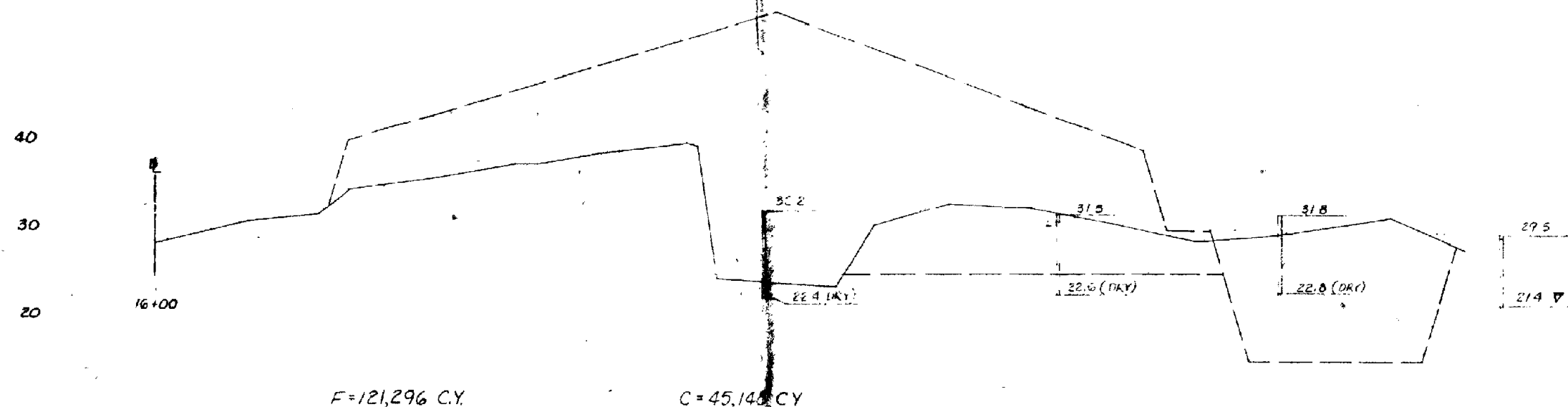
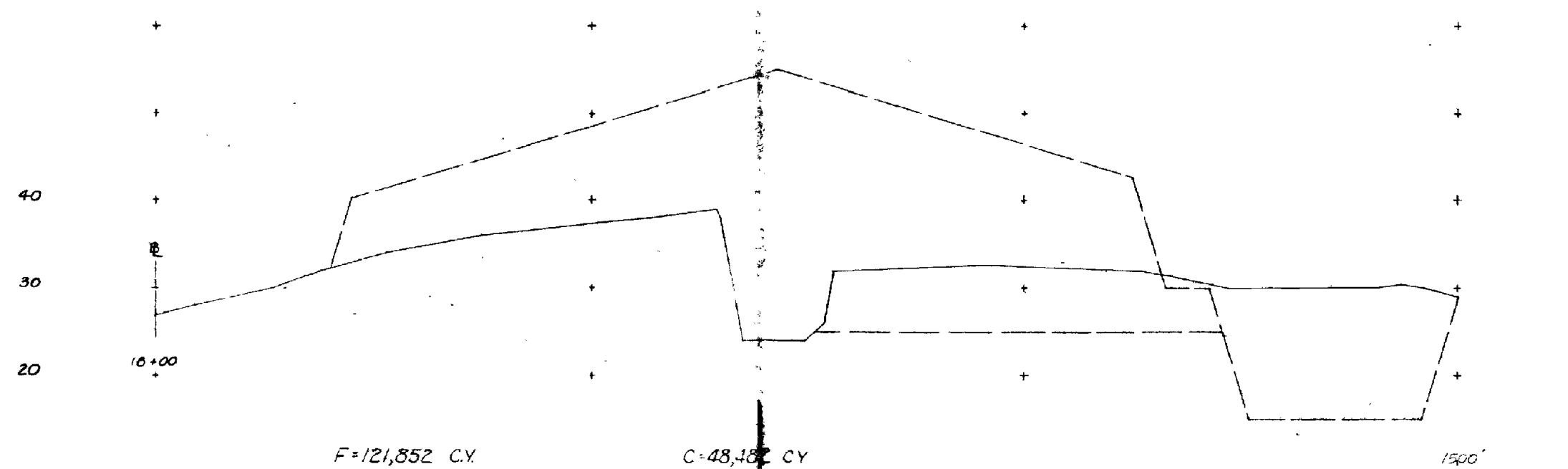
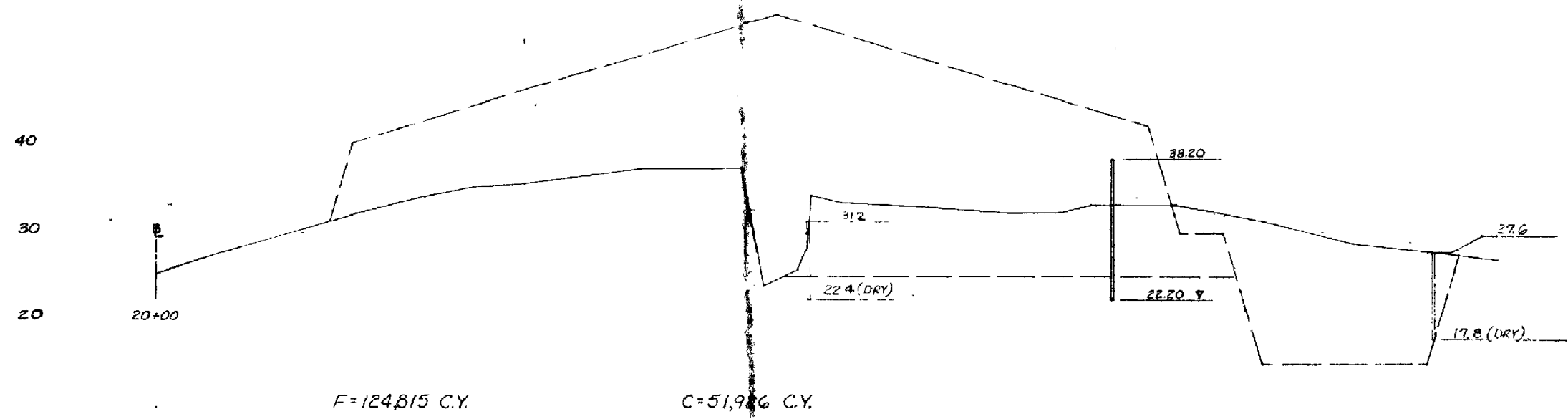
90%
Submitted
00454 A 04X

LIMITS OF WORK 250' ± BK $F = 33,779 \text{ C.Y.}$ $C = 4,977 \text{ C.Y.}$

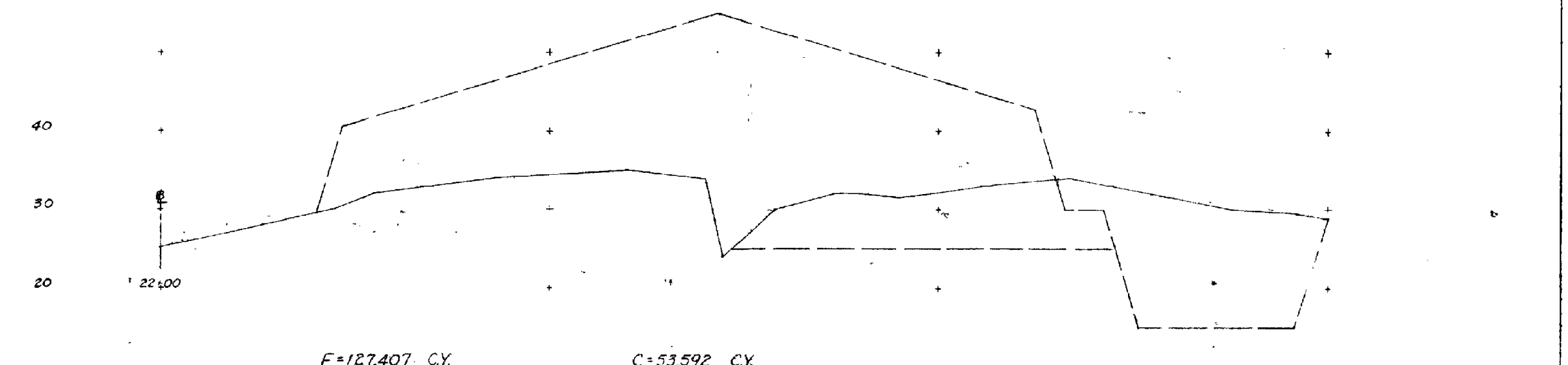
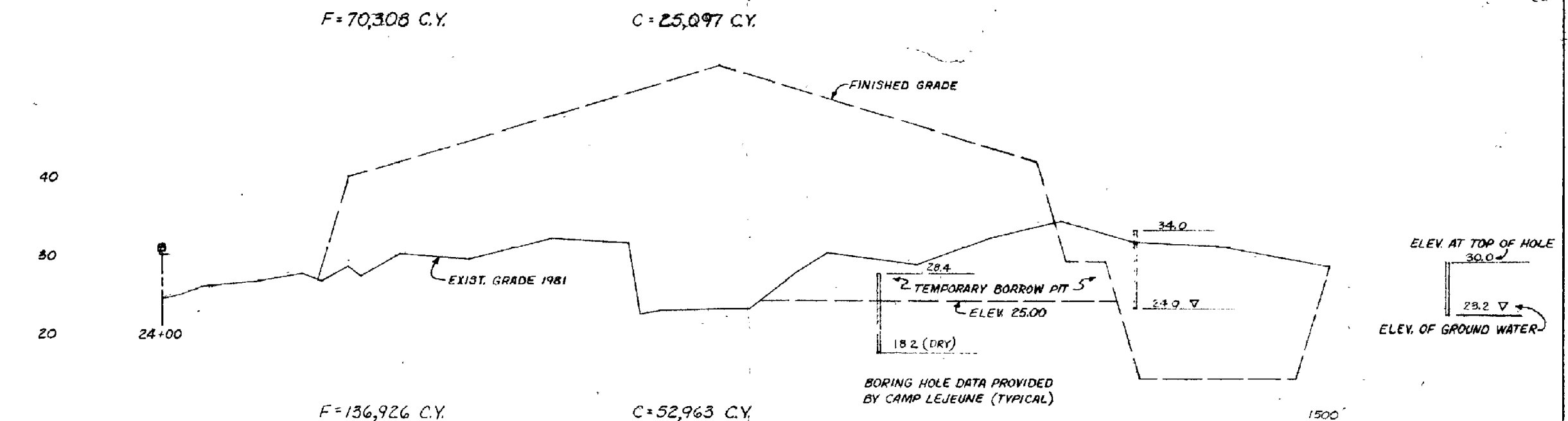
--- 1981 TOPO
 --- PROPOSED GRADE

SCALE:
 VERT. 1" = 10'
 HORIZ. 1" = 100'

McDOWELL - JONES, P.A.		DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND	
ENGINEERS - SURVEYORS		ATLANTIC DIVISION		NORFOLK, VIRGINIA	
ELIZABETH CITY, NORTH CAROLINA		NAVAL STATION		CAMP LEJEUNE, NORTH CAROLINA	
DES.	DR.	CHK.	M.C.B.		
PROJ. MGR.	CH. ENGR.				
SUBMITTED BY:	DATE:				
FIRM MEMBER:	PRINCIPAL:				
E.P.D.	BY:				
NO.	DATE:				
APPROVED:	DATE:	SITE	CODE IDENT. NO.	NAVIC DRAWING NO.	
OFFICER IN CHARGE	DATE:				
APPROVED:	DATE:				
FOR E.P.D. USE COMMAND, NAVFAC	SCALE:	SPD:	SHEET OF		



LIMITS OF WORK 120' ± RW'D



90%
Submitted

00454A05X

4

SCALE
VERT 1"=10'
HORIZ 1"=100'

McDOWELL - JONES, P.A. ENGINEERS - SURVEYORS ELIZABETH CITY, NORTH CAROLINA		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION CAMP LEJEUNE, NORTH CAROLINA	
DES	DR	CHK	M/CB
PROJ MGR.	CH. ENGR.	DATE	
SUBMITTED BY:		DATE:	
FIRM MEMBER	PRINCIPAL	DATE	
APP'D	DATE	DATE	
APPROVED	DATE	DATE	
OFFICER IN CHARGE	DATE	DATE	
APPROVED	DATE	DATE	
FOR ETD FOR COMMANDED NAVFAC	SCALE	SPEC	CONSTR. CONTR. NO.
			SHEET OF
			ETD DWS NO.

77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93



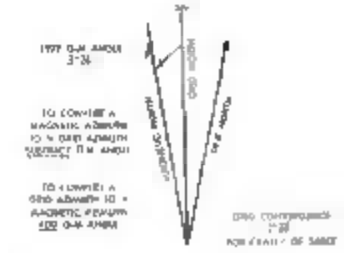
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EXTENSION 2-USMC

Prepared by 2d Topographic Photo, Sgt Eugene Beiselon, Force Troop, FMH&I, Camp Lejeune, N. C. 28442. Mosaic controlled by best coverage for North Carolina, 1:50,000, AMS Series V742 1968. Aerial photography February 1972. Additional coastal hydrographs compiled from the chart 15,042-50,1.



BLACK NUMBERED LINES INDICATE THE 1000 METER UNIVERSAL TRANSVERSE MERCATOR GRID. ONLY THE LAST THREE DIGITS OF THE GRID NUMBERS ARE OMITTED.



ADDITIONAL SHEETS

5552 III SE	5553 III SE	5554 III SE
5553 III SE	5553 III SE	5554 III SE
5554 III SE	5554 III SE	5554 III SE



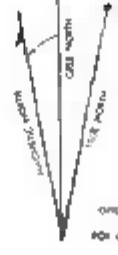
EDITION 2-USMC

Prepared by 2d Topographic Platoon, 8th Engineer Battalion, Force Troops, I Marine Amphibious Corps, Camp Lejeune, N.C. 28542. Mosaic controlled by best average 1:1 to North Carolina, 1:50,000 AMS Series V742, 1964. Aerial photography February 1972. Additional coastal hydrography compiled from H. O. Chart 15042 501.



BACK NUMBERED SPACES INDICATE THE 1000 METR UNIT 25M TRANSVERSE MERCATOR GRID ZONE IS THE 1000 METR SPACES OF THE GRID NUMBERS ARE OMITTED

1:50,000 SCALE
NO CORRECT + MAGNETIC NORTH
NO CORRECT + MAGNETIC NORTH
NO CORRECT + MAGNETIC NORTH



ADJOINING SHEETS

5553 I NE	5553 I SE	5553 II NE	5553 II SE
5553 I NW	5553 I SW	5553 II NW	5553 II SW

Cpl. Cordew

- County Water Dept. 455-1370
- Mr Benny Trip -
one 0:45 ~12:00

on 17 - south

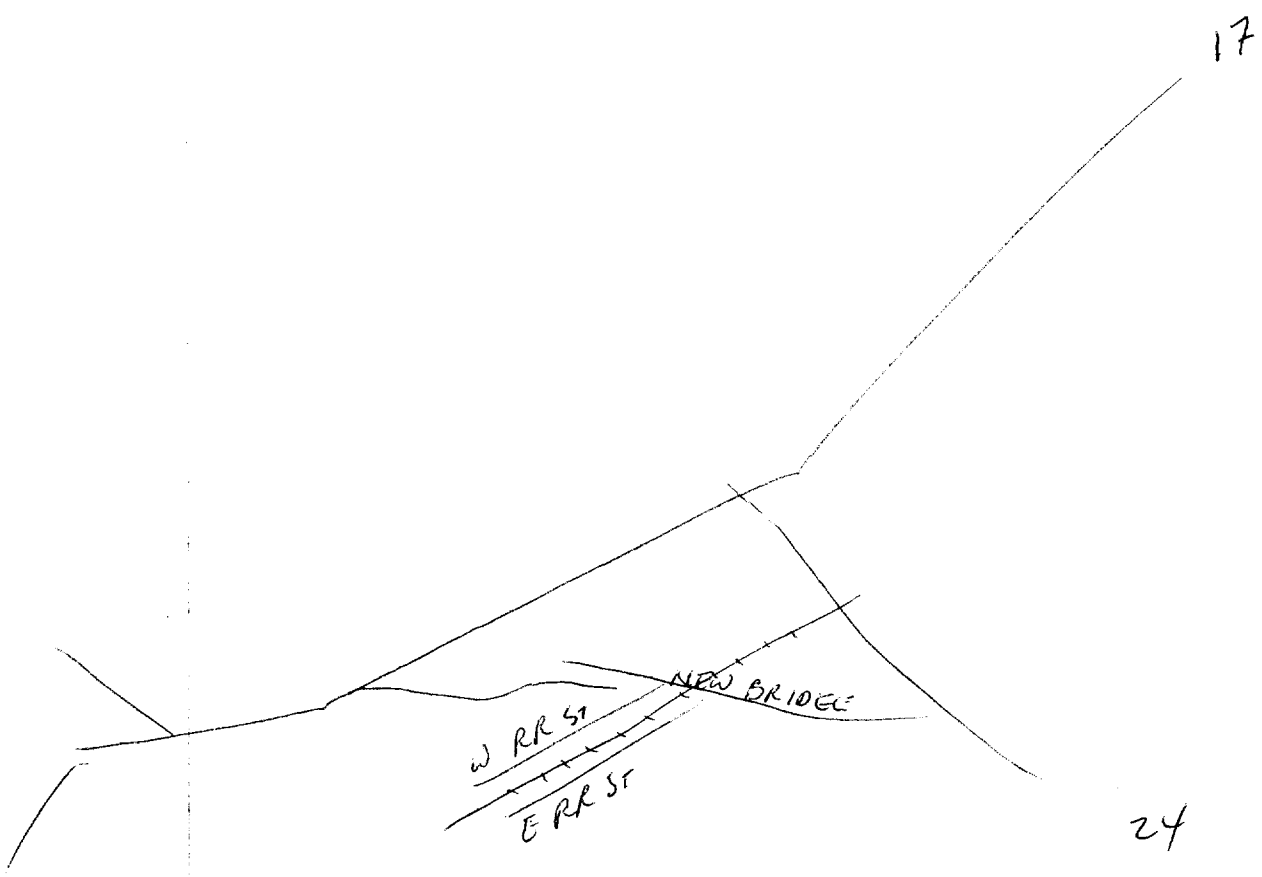
@ Mac Don - left

left @ STOP sign

@ bd ed. last visit
bhd

- City Water Dept. 455-2600
Mr McRorie - head of utilities

West RR St. - Alan Plantman



17

W RR ST
NEW BRIDGE
E RR ST

24

88
HENRY BARKLEY

RET. LINES IN

JAX., N.C.

w/ PLANNING & EST.

w/ BASE M.

Public Works

John Jordan :

Assests

Drainage

Well Borings

San. Sewer System Layout

Storm " "

Percy Smith
+689 3561
-1202

Base Maintenance - 3/16

L D SHEPARD, FOREMAN

JOHN B JAMES

HENRY CHESTNUT

ROBIN ELLIS

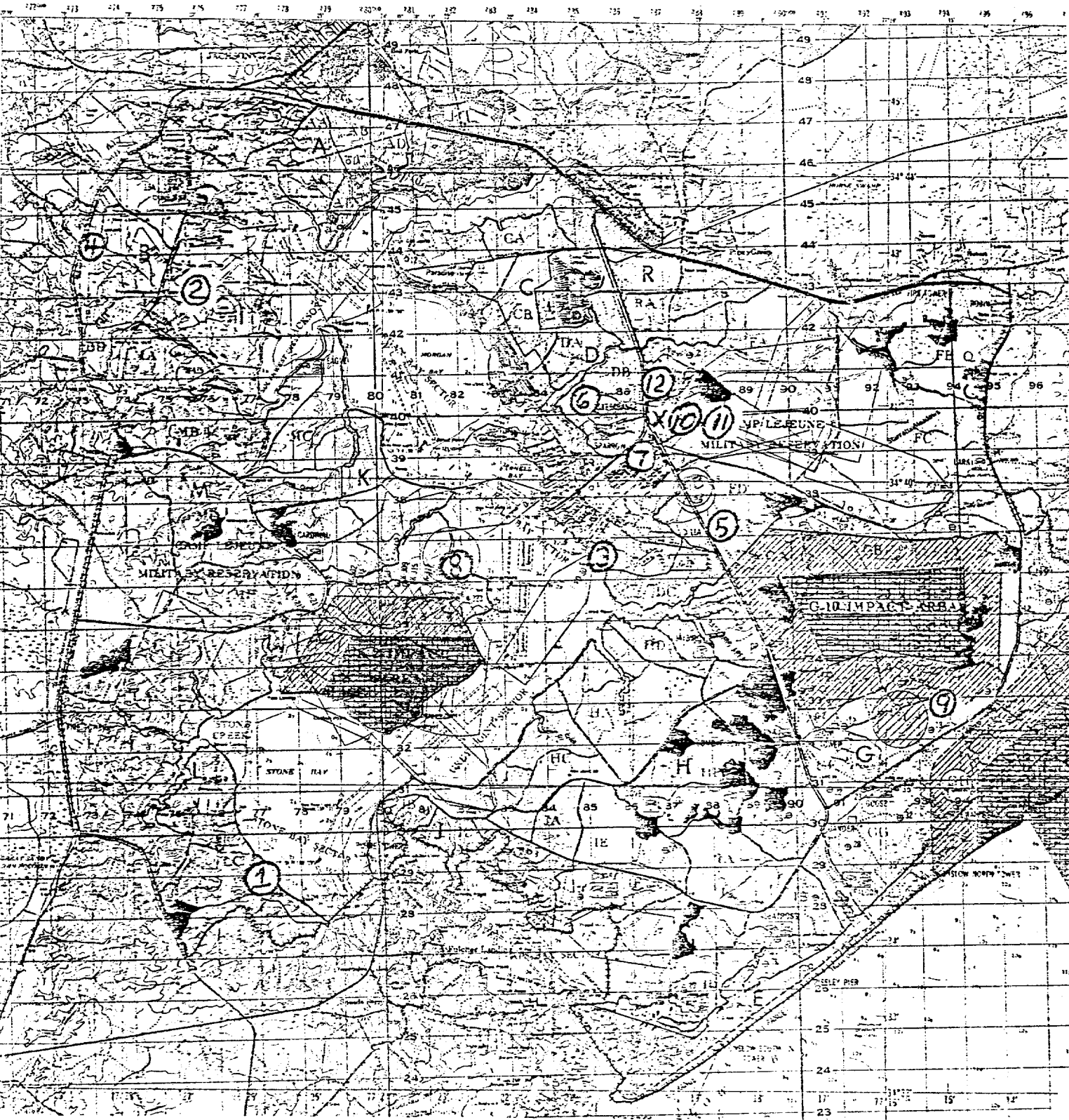
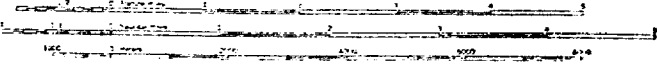
MAX GIBBS

MR. GILMAN

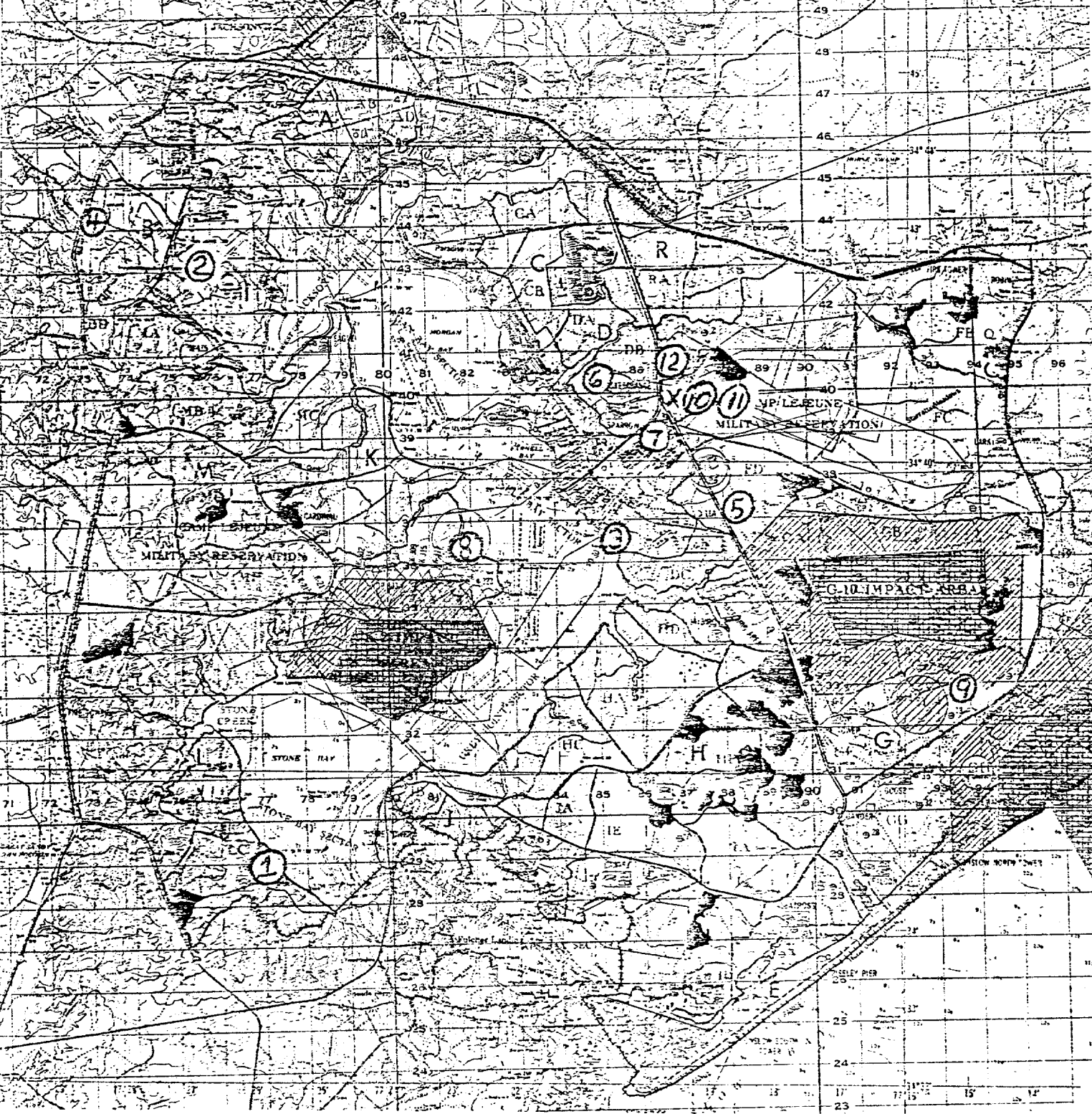
~~WENNER~~ SHEPARD

Mr. Patnam suggested
everyone carry a binder
to Cherry Pt. / Camp Lejeune.

SOUNDINGS IN METERS



172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195




49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23

Jim:

Here are your tickets for your trip Monday. Dr. Putnam called and said to tell you that you will not be met at the airport. He has reserved a car for you at Hertz - you are to drive directly to the Natural Resources Building at Camp Lejeune. If no one is there yet - wait.

Please bring all the materials for Camp Lejeune.

Quad Maps
Big box of stuff
Hazardous waste fact sheets
1008 sheet to EPA
Does not need master plan.



GOOD LUCK AND HAVE A NICE TRIP.

Jeanne

CAROLINA SLURRY SYSTEMS

ROUTE 8 · BOX 114

RALEIGH, NORTH CAROLINA 27612

(919) 782-2573

9 June 1982

Water and Air Research
Post Office Box 1121
Gainesville, Florida 32602

Attention: Mr. Hugh Putnam

Gentlemen:

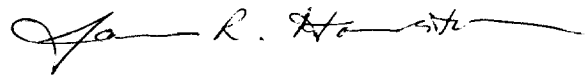
Enclosed is our brochure illustrating the vibrated beam technique of cut-off wall installation. With this construction method, we are able to install a variety of custom formulated slurries to match various containment problems. The Aspenix^R slurry is able to contain very aggressive fluids and still provide conservative impermeability.

If possible we would appreciate a copy of your project report of your investigation at Camp LeJeune.

After reviewing the enclosed information, we will be happy to discuss any application you may have for this system.

Very truly yours,

CAROLINA SLURRY SYSTEMS

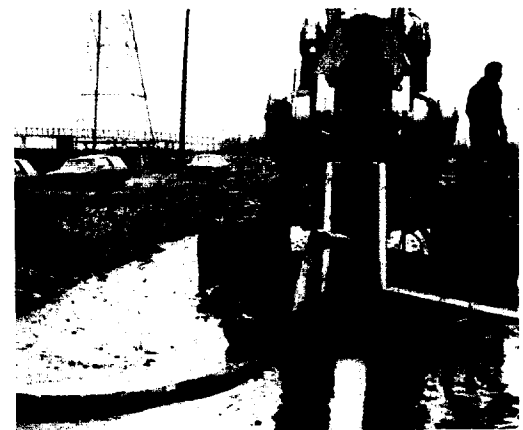
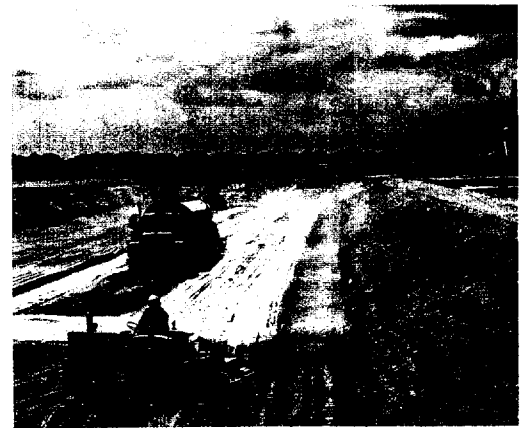
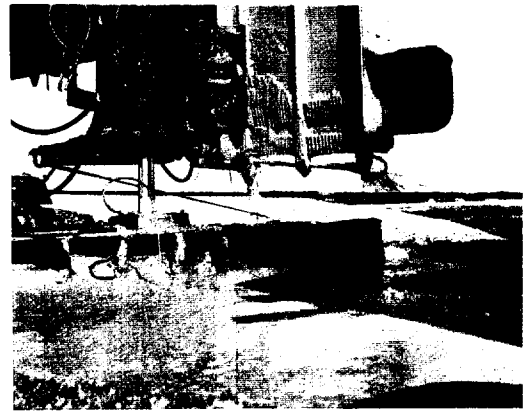


James R. Harmston

JRH/jp

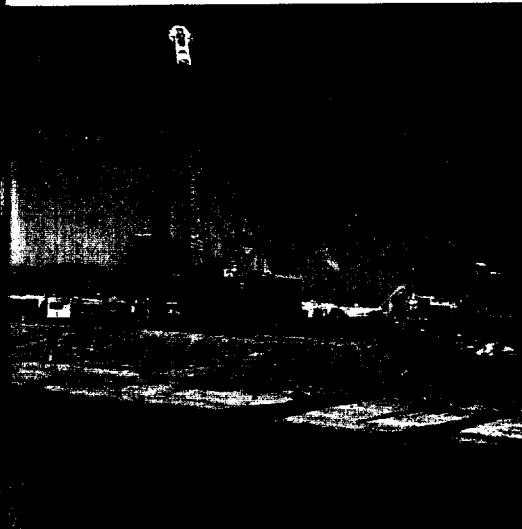
Enclosures:

**SLURRY WALLS
POND LINERS
WATER CONSERVATION
CONSTRUCTION DEWATERING
HAZARDOUS WASTE CONTROL**



Slurry Systems

CONTRACTORS and CONSULTANTS
A Division of Thatcher Engineering Corporation



SLURRY SYSTEMS

A division of
THATCHER ENGINEERING CORP.
7100 Industrial Avenue
Gary, Indiana 46406
(219) 949-0561 Telex 72-5427

CAROLINA SLURRY SYSTEMS

Post Office Box 360
Morrisville, North Carolina 27560
(919) 782-2573

**JEBCO SLURRY SYSTEMS
JEBCO SLURRY ASSOCIATES**

1339 Chestnut Street
Philadelphia, Pennsylvania 19107
(215) 568-5707

GROUND SLURRY SYSTEMS

415 Seventh Avenue
Regina, Saskatchewan
Canada S4N4P1
(306) 569-0576

DUTRA SLURRY SYSTEMS

P.O. Box 338
Rio Vista, California 94571
(707) 374-6339

**Slurry
Systems**

Contractors and Consultants

Total Control of Water Barrier Problems . . .

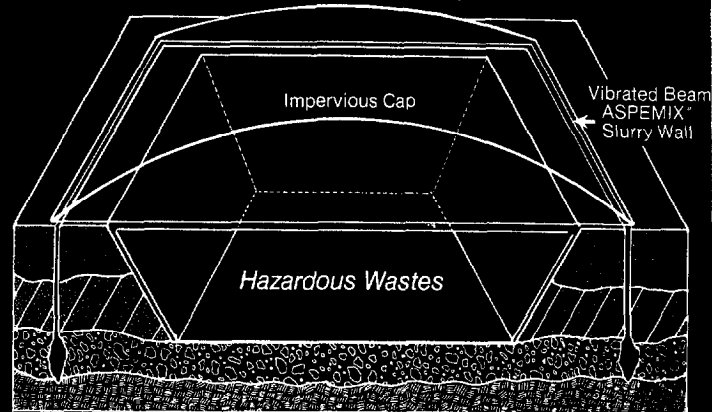
SLURRY SYSTEMS a Division of Thatcher Engineering combines the capabilities of engineering-consulting services and construction in the fields of water pollution, construction dewatering, impoundment of hazardous wastes, chemical wastes and retention ponds.

We offer you several highly innovative, but totally functional systems that can be utilized to solve water barrier problems. We have an unmatched record of accomplishments, successfully installing millions of square feet of vibrated beam slurry wall and many acres of pond liners throughout the United States and Canada.

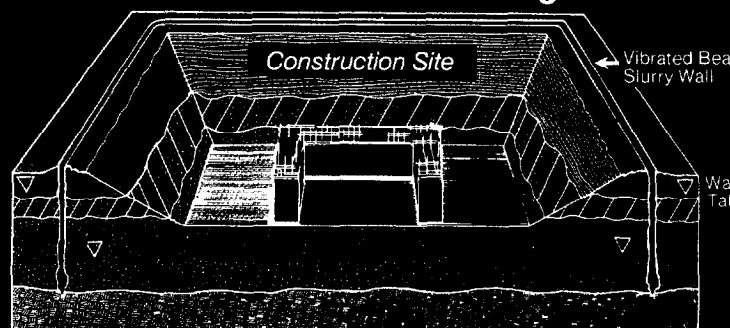
The success of our installations can be attributed to our systems approach. We have the highly trained personnel necessary to investigate each proposed job site, define the problem and develop an economically feasible solution to your problem. We design the proper and workable technique and the right slurry for each job. We design a solution for YOUR problem, we don't have a one size fits all approach. In critical areas where pollutants have highly detrimental effects on bentonite base slurries, we have developed specially formulated slurries to solve particularly unique problems. Our trademarked asphalt emulsion base slurry ASPEMIX® has a proven record as a barrier media under the most demanding conditions, and is capable of withstanding most known chemicals. But, the planning and the design are only part of our system, we also have the manpower and the equipment to put the system in place, and to place it **Successfully**.

Slurry Systems is small enough to permit the principals to actively participate in each project, but large enough and with sufficient financial resources to assure effective execution of major construction undertakings.

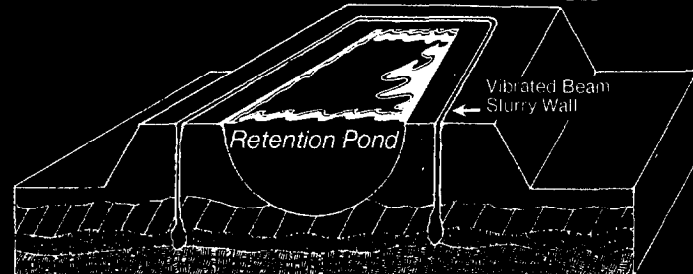
Pollution Control



Construction Dewatering



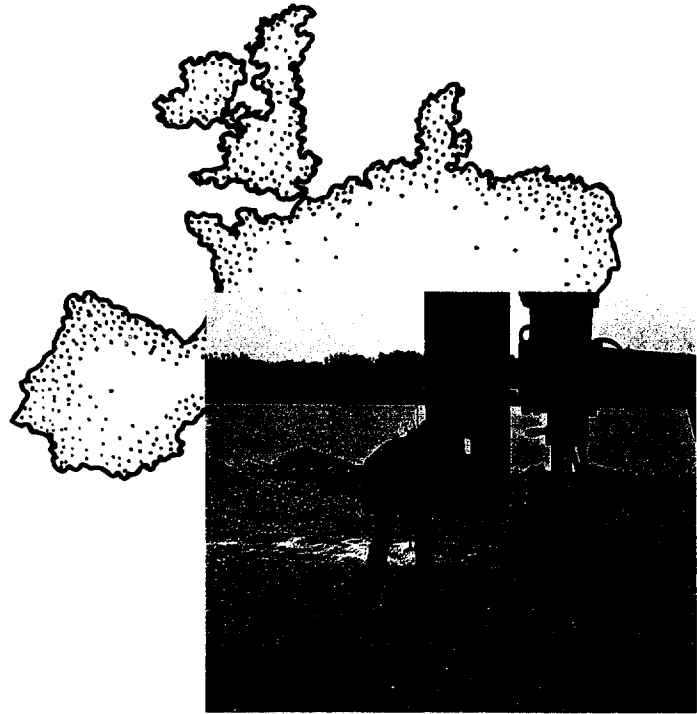
Water Conservation



The Thin Wall

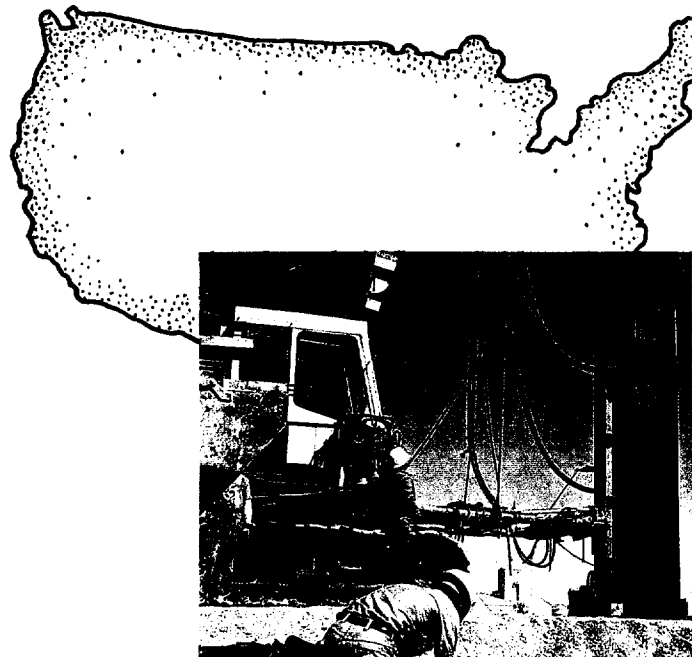
In Europe. . .

The vibrated beam slurry cut-off wall originated in Europe in the early 1950's. It provides a method of cut-off placement that is highly efficient in producing a low-cost impermeable barrier. By 1974, more than 50 million square feet of slurry wall had been constructed by this new method, all of it successful. So successful in fact, that through-out Europe cement/bentonite slurries are considered to be the only practical method for dewatering projects, water containment, and at power plants for the retention of fly ash ponds. Therefore, the "new" vibrated beam slurry cut-off became an important tool in the hands of geotechnical engineers.



In The United States. . .

In 1974, Slurry Systems brought the vibrated beam technique to the United States. Since then we have added a number of significant improvements in both slurry formulation designs and in equipment development. We have successfully placed millions of square feet of vibrated beam slurry cut-off wall. Our methods are fast, economical and make efficient use of men, machinery and material. Our quality control methods, the overall neatness of our job-sites and our proven track record speak for themselves. **We can document the advantages of our methods over ANY OTHER METHOD OF SLURRY WALL PLACEMENT.**



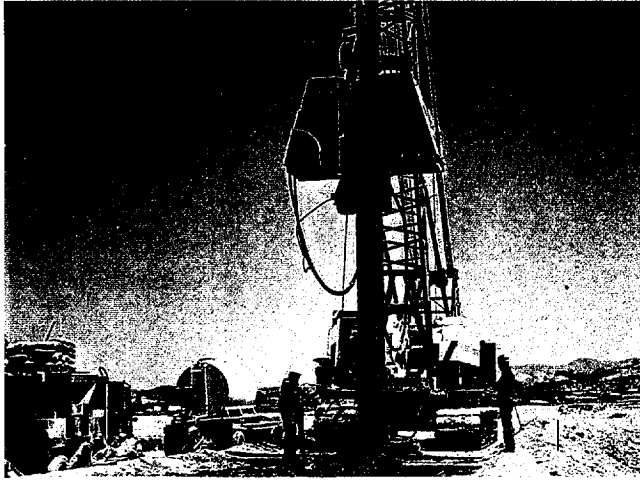
Under the toughest conditions. . .

After conventional dewatering methods were ruled not feasible at the Harry S. Truman Dam on the Osage River, we placed a vibrated beam slurry wall in coarse gravel. . . **and the project was completed successfully.** In Canada where contamination of the soil by PCB's prohibited any excavation, we successfully isolated the problem area with a vibrated beam wall that utilized a high concentration of bentonite. At a chemical recovery plant we were able to successfully enclose a hazardous waste area with

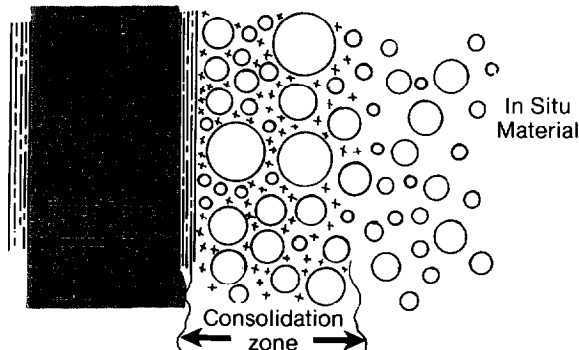
ASPEMIX® (a second generation slurry) where material cost prohibited the backhoe or clamshell method. In Michigan we were able to place a vibrated beam wall in an area that was so confined no other method could be used to place the wall.

Works . . .

Better than the Clam Shell/Backhoe Method. . .

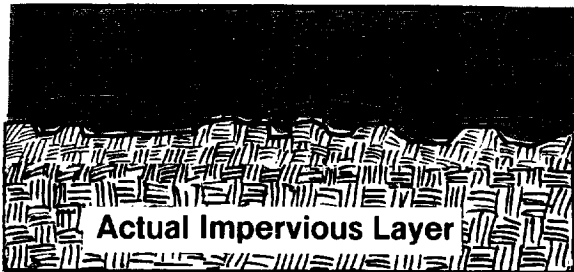


**VIBRATED BEAM
THIN SLURRY WALL
(CEMENT/BENTONITE)**



The result. . . Our direct injection vibrated beam slurry wall gives two positively formed filter cakes and a wall with overall quality superior to any other method.

BOUNDARY CONDITIONS

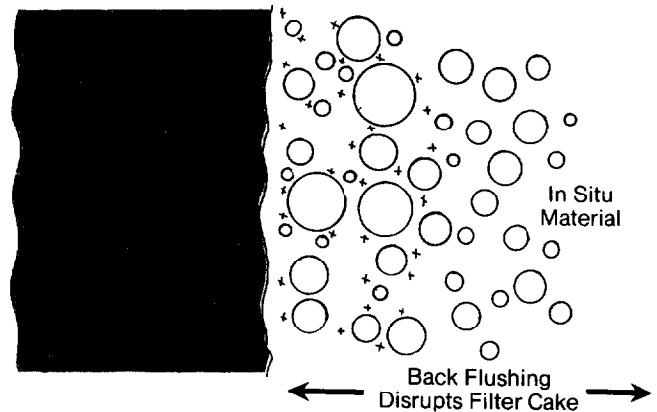


Actual vibrated beam installation contacting the impervious layer.

The result. . . With our patented vibrated beam we are able to find the impervious zone and "key" into clay or seal to rock, no matter what the boring plot shows.

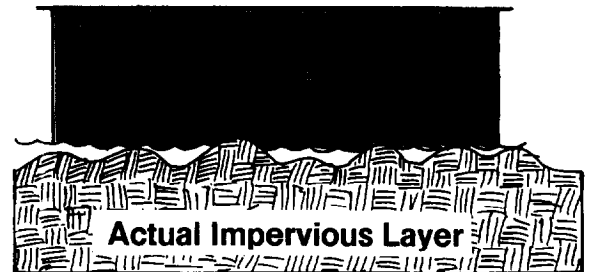


**SLURRY TRENCH
(SOIL/BENTONITE)**



The result. . . A poorly formed filter cake that is more permeable than the vibrated beam wall.

BOUNDARY CONDITIONS

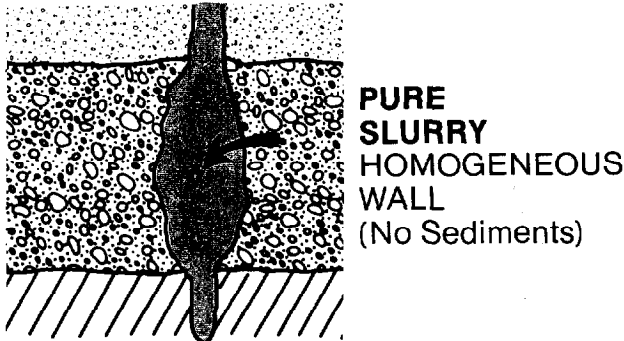


Backhoe or clamshell gives a scalloped bottom.

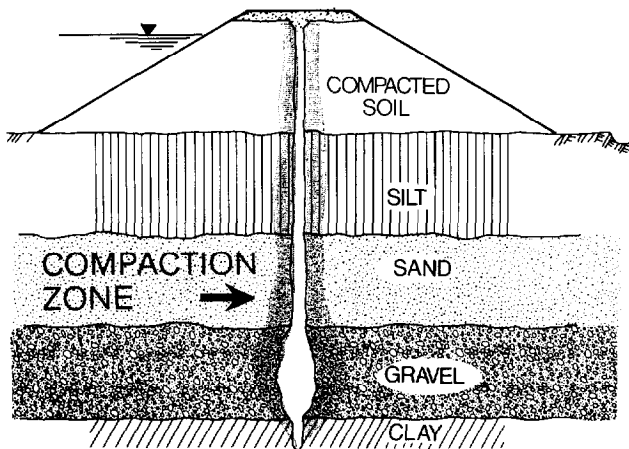
The result. . . By digging to the depth determined by boring this method does not always contact the impervious layer.

Vibrated Beam

Vibrated Beam Slurry Wall Profile



The result. . . A very firm, very dense filter cake, with uniformly oriented bentonite particles. . . the optimum impermeable barrier. . .



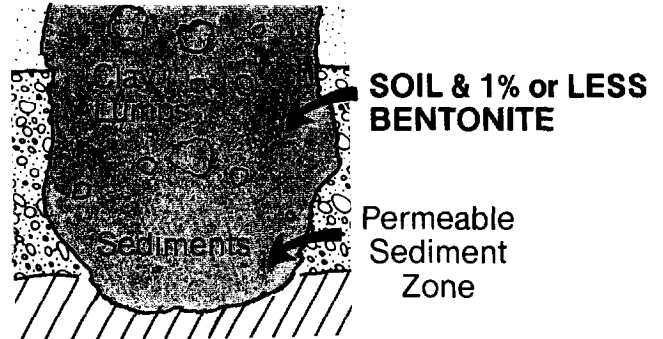
Our wall width is self-regulating, it becomes wider in pervious soils, narrower in impervious soils, and also acts to consolidate the more pervious soils, compacting and displacing soil to further reduce permeability.



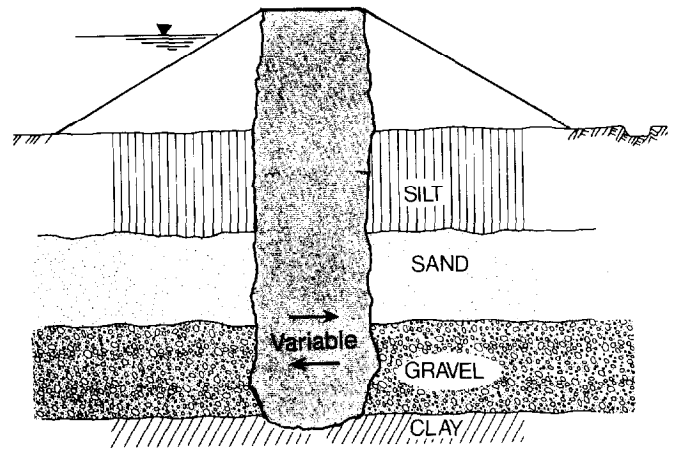
With our vibrated beam method, uncontaminated slurry is injected directly into the wall for final placement.

Backhoe Clam Shell

Typical Slurry Trench Profile



The result. . . A potential problem where pervious sediments are trapped at the boundary with the impervious layer, and the backfill is non-homogeneous, which requires air lifting.



The slurry trench regulates to the soils, but cannot consolidate the adjacent walls.



With the clam shell/backhoe method the slurry is contaminated during the excavation and backfill procedure, and is subjected to additional contamination during the mixing process (on the ground) and again as it is bulldozed into the trench.

STANDARD VIBRATED BEAM SLURRY MIX

Approximately 6% Bentonite by weight of H²O
Approximately 10% Cement by weight of H²O



Our vibrated beam method gives a clean, safe job site. . . And inspection of material, quality and wall depth is accurate and easy.



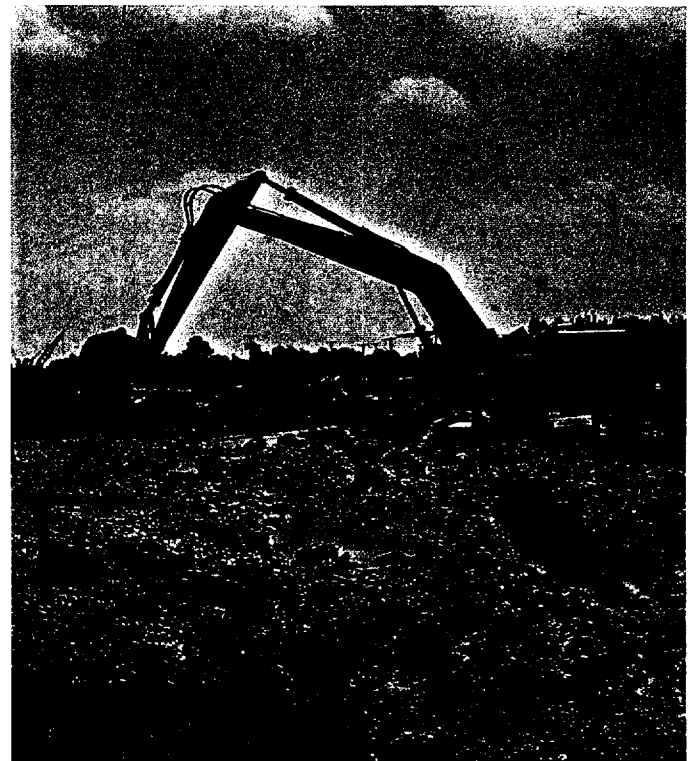
Our vibrated beam walls have a higher percentage of bentonite per square foot. **Resulting in a higher quality wall with the least permeability.**

TYPICAL BACKFILL MATERIAL

The original H²O content of 20%± in the excavated material, with the added slurry to form the requested cone slump of 4" to 6" results in a backfill that is extremely dilute and has over-all non-uniform impermeability characteristics.



Clamshell/backhoe trench jobsites are messy and next to impossible to inspect or control, often resulting in unsafe conditions.



Clamshell/backhoe slurry trench, with diluted Bentonite in soil is subject to chemical attack, ground water erosion and degradation.



Before anything moves, we thoroughly plan each part of the whole operation. Whether it is a leaking storage pond or a complex dewatering system, we will work out all the details prior to starting the job.

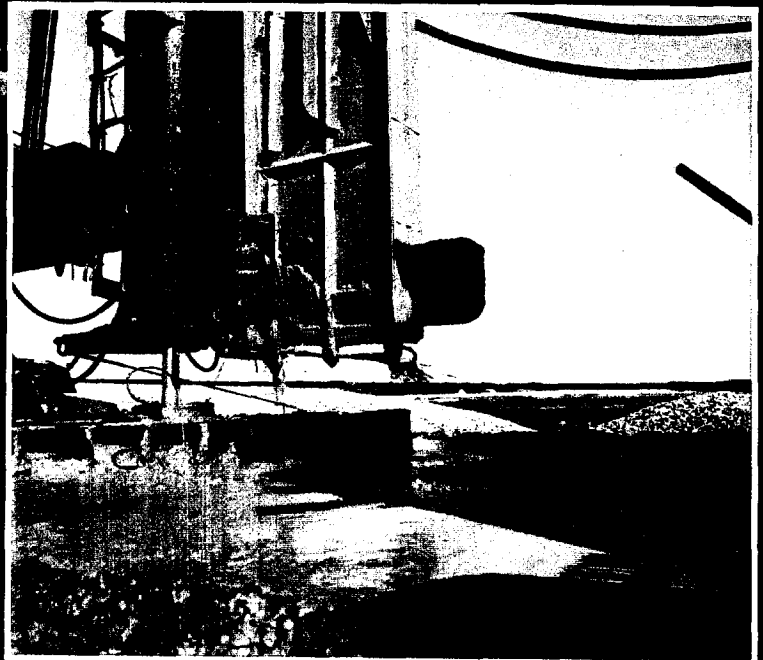


We are continually looking for innovations and improvements to all phases of our operations. We have made significant advances in slurries, including our trademarked "second generation slurry" ASPMIX[®] which is capable of resisting concentrated acids and basic solutions.

An important part of our continuing research and development program in water impedance is the work of Dr. Milton Harr, Dr. Sidney Diamond, and Dr. William Dolch.

Aerial Photo:

This overview shows the completed system of storage ponds and lagoons at the Schahfer Generating Station near Wheatfield, Ind. We installed over 1,000,000 square feet of slurry wall on this project using our vibrated beam technique.



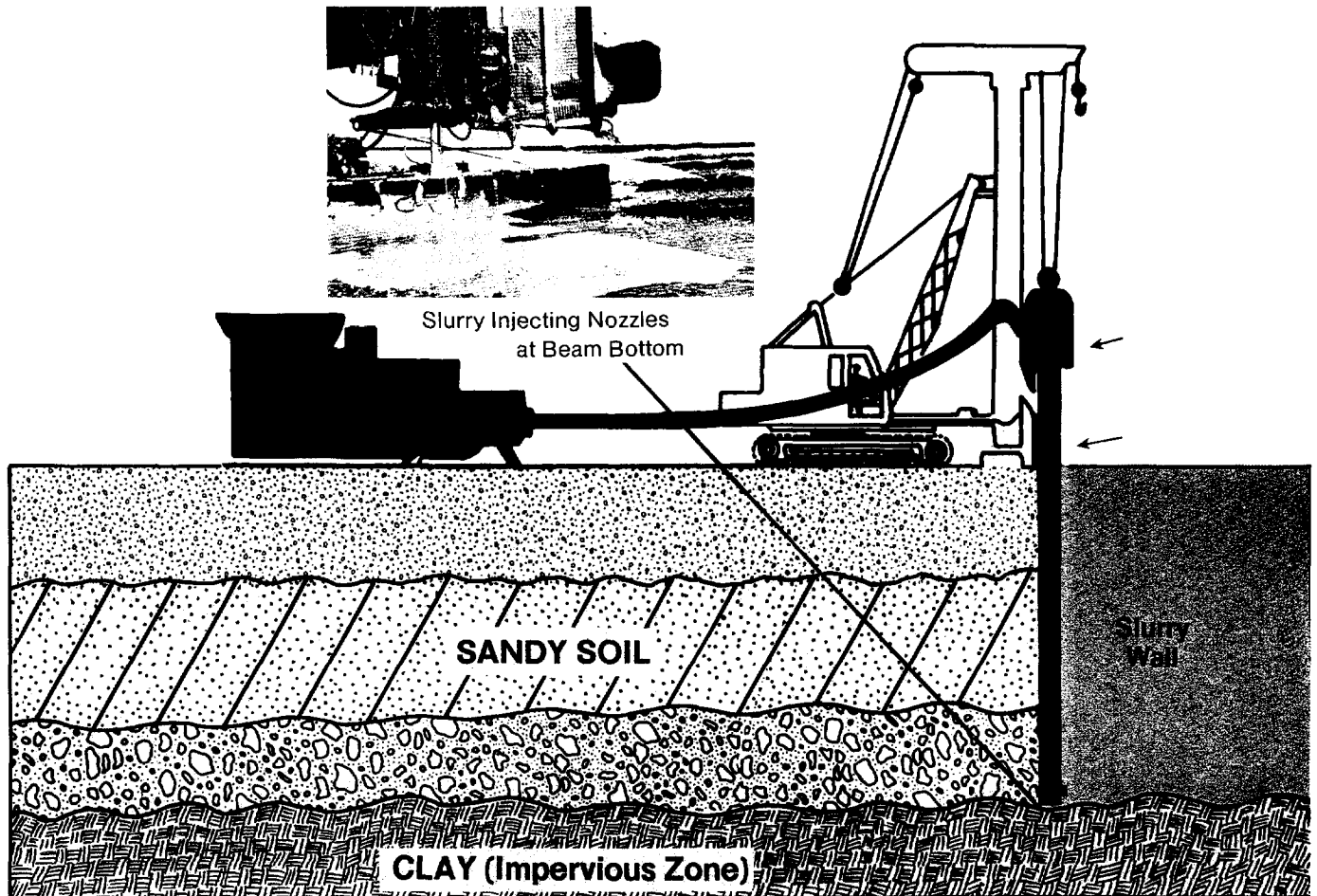
Our patented vibrated beam is hydraulically controlled both horizontally and vertically. The custom designed slurry is pumped under pressure through the injection nozzles at the tip of the beam.

Vibrated Beam

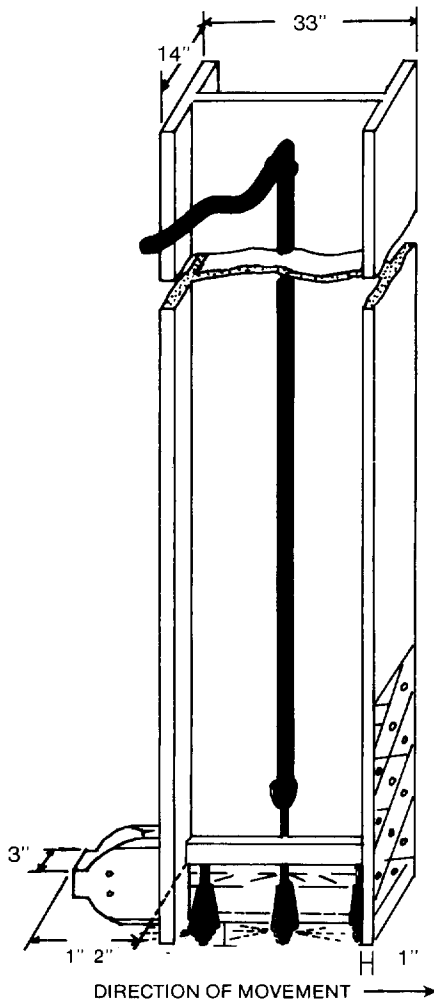
The **Vibrated Beam** slurry cut-off wall installation is a highly efficient and low-cost method. Our unique system is applicable to construction dewatering, industrial holding ponds, fresh water retention reservoirs, pollution control, chemical waste holding ponds and wherever vertical barriers are required in permeable soils.

Construction of a vibrated beam slurry cut-off wall requires the use of a special crane suspended I-beam, connected to a powerful vibrator. The beam is locked in the guide frame for the exact positioning and stabilized by a hydraulic foot that provides guidance and aids in keeping the insertion vertical. Slurry is injected under pressure through a set of nozzles located at the base of the vibrated beam. At the completion of each panel, the rig is moved along the direction of the wall, the previous insertion is overlapped to insure continuity and the entire process is repeated. **The result... a continuous slurry wall that works...**

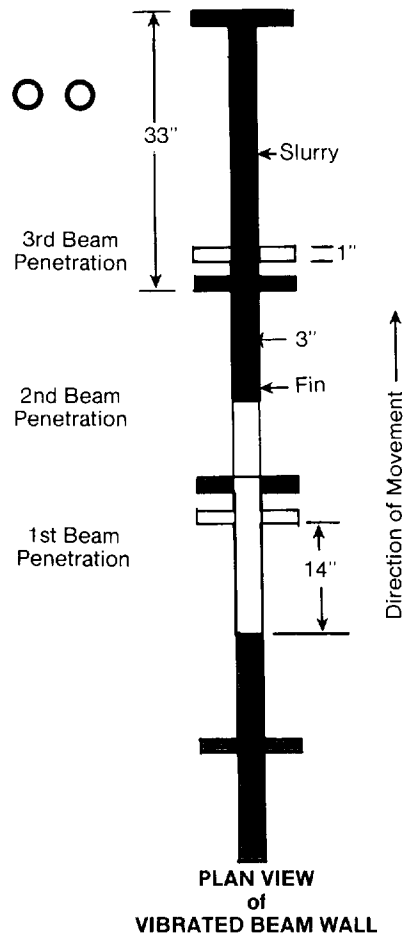
Quality Control is one of the strongest points of our vibrated beam slurry cut-off placement technique. Starting with the designed mix (*formulated in our own lab*) which is exactly duplicated in our field mixing plant and continuing with inspection during the beam insertion process, our work measures up. Our field tests include: **Marsh Funnel** to measure viscosity of the slurry, a check of **Specific Gravity** for per cent of solids in the mix, and a **Filter Press** to measure filtrate loss for quality of filter cake, of which all readings are recorded and kept for the client as a quality control record of the wall installation. Along with a log of all beam penetrations. Test data from independent testing companies verify our high standards of quality control.



Slurry Walls...



VIBRATED BEAM* Slurry Wall as it looks excavated 10 feet below the surface.
*Covered by one or more U.S. & Canadian patents.



Although our method of slurry wall placement is very unique, the vibrated beam is only part of the story. The mix we inject into the cavity left by the retraction of the vibrated beam is the real key to our success. We can, and do formulate slurries to fit specific conditions. For example, for use in impoundments and barriers for fresh water projects, we would compound a slurry of high quality Wyoming Bentonite, cement and water. The Portland cement is used for bonding strength, and erosion protection. We carefully prepare our slurry in portable mixing plants, under controlled conditions so the slurry can be checked and monitored for the designed properties and then pumped by positive displacement pumps through the beam nozzles to form the slurry wall.

For the containment of chemical and hazardous wastes, where bentonite based slurries would be adversely affected, we designed a totally new slurry, **ASPEMIX®**. This cold asphalt emulsion slurry has proven itself under the toughest conditions imaginable. It will chemically resist most known chemicals and hazardous wastes, standing up under conditions that would chemically destroy conventional slurry walls. Permeability testing of **ASPEMIX®** slurry cut-off walls shows less than 1×10^{-9} cm/sec. But simply stated, **our ASPEMIX® slurry walls can contain most known chemicals and hazardous wastes.**

In landfills where we need to deal with concentrated leachates we custom design the slurry mix to be chemically compatible and provide an impermeable barrier. We have successfully designed and placed slurry where "conventional" methods have failed. With our vibrated beam technique we can place slurries of different compositions and design **TO MEET MOST CONDITIONS.**

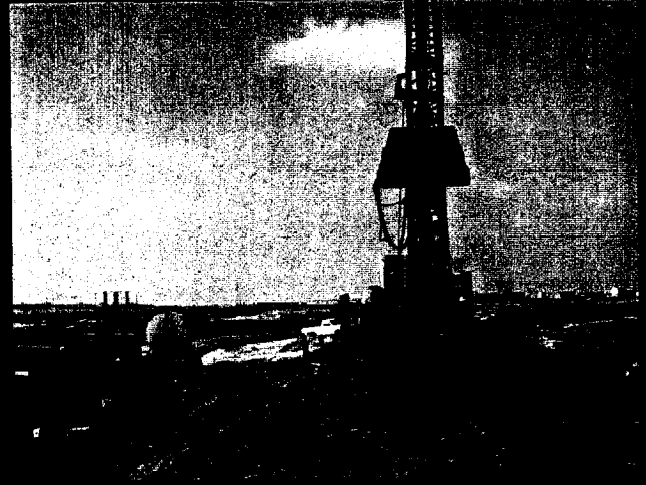
ASPEMIX®

The Second Generation Slurry

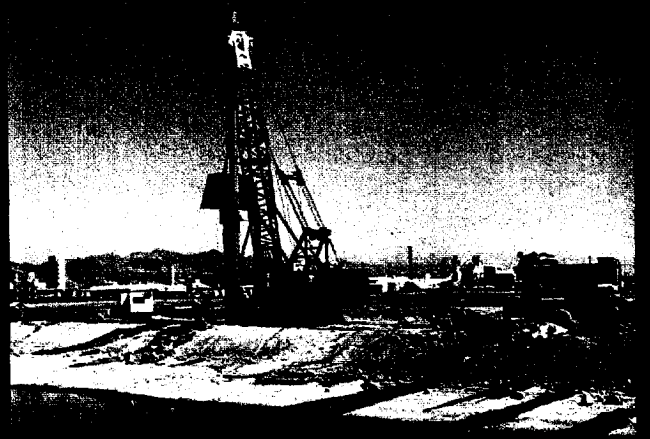
Our development of ASPEMIX® has enabled us to place effective slurry walls where conditions exist that would absolutely prohibit any conventional bentonite based slurry. This true "second generation slurry" ASPEMIX® is a cold asphalt base emulsion capable of resisting concentrated acids, basic solutions and other chemicals.



ASPEMIX® slurry design is carefully formulated, using asphalt emulsions - an intimate mixture of minute droplets of asphalt suspended in a continuous water phase. Molten asphalt is broken into droplets in the presence of water and emulsifier, keeping the droplets in suspension, to form the base of ASPEMIX® slurry. Chemically compatible filler is added to form a mix with a light creamy consistency, and this mix is then pumped into the ground by our vibrated beam technique, to form an extremely effective cut-off wall.



The properties of a completed ASPEMIX® cut-off wall vary with the properties of the materials incorporated into the slurry mix design. In addition to very low permeability, ASPEMIX® has fairly high compressive strength, very good resistance to chemical degradation, good bond and time proven longevity.



We have used ASPEMIX® quite successfully in the containment of hazardous and toxic wastes. When placed by our patented vibrating beam technique it results in an impermeable barrier ($K = 1 \times 10^{-9}$ cm/sec. - or less) at very moderate costs.

ASPEMIX® works in the most demanding of circumstances. . . and it works well.



of India
Chic
rochemie
al
covery
Sanitary District
City Michigan
etta
iana Public Service Company
aluminum
chemicals
roleum
al Mineral & Chemical
neer of Canada
gis Michigan

We are proud of our past accomplishments, and look forward to a significant amount of future work in the fields of pollution control, construction dewatering and water conservation. If you have a potential problem in any of these areas, we can be of help. As experienced contractors and consultants, we are able to provide the special people and the special equipment necessary to help solve your water barrier problems.

Fred Schmednecht
President
Slurry Systems
Division of
Thatcher Engineering Corp.



Aerial view of Slurry Systems office and storage yard in Gary, Indiana.

Slurry Systems

CONTRACTORS and CONSULTANTS
A Division of Thatcher Engineering Corporation

Problem solvers in the fields of
construction dewatering
pollution control and
water conservation.

NOTES:

SLURRY SYSTEMS

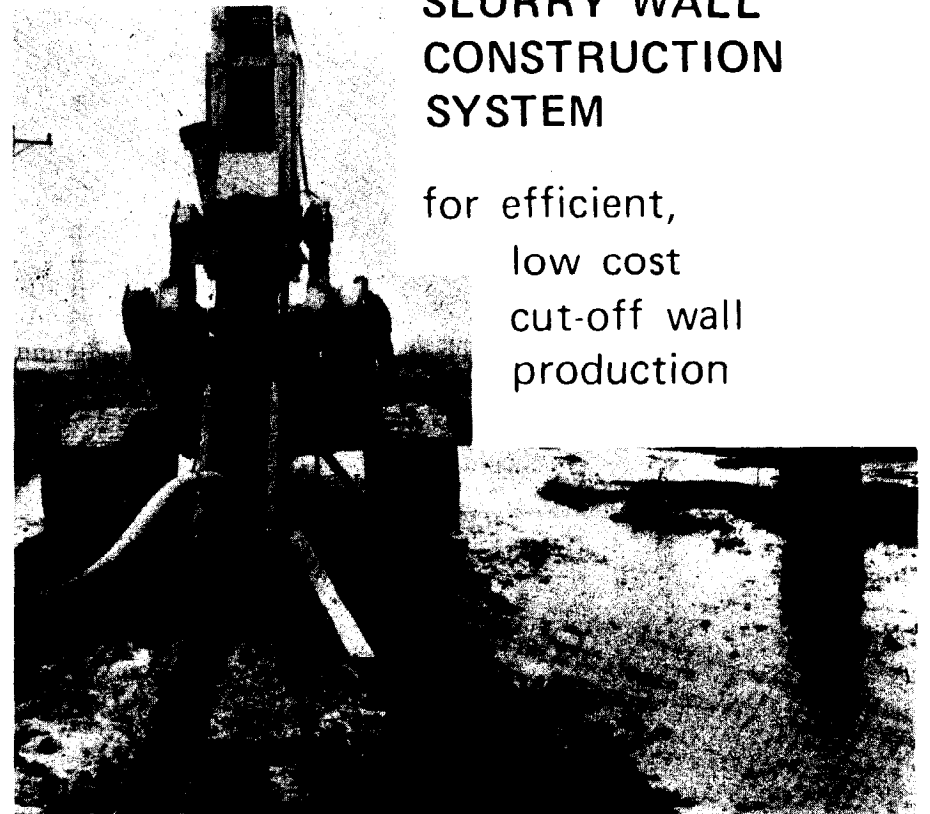
& CAROLINA SLURRY SYSTEMS

*Introduce
The New*

Automated

SLURRY WALL CONSTRUCTION SYSTEM

for efficient,
low cost
cut-off wall
production



SLURRY SYSTEMS DIV. of THATCHER ENG.

7100 INDUSTRIAL AV. • GARY, IND. 46406
TEL. 219-949-0561 TELEX: 72-5427 (TEC GAR)

& CAROLINA SLURRY SYSTEMS

ROUTE 8, BOX 114 • RALEIGH, N.C. 27612
TEL. 919-782-2573

A NEW, HIGHLY EFFICIENT SLURRY WALL CONSTRUCTION SYSTEM NOW AVAILABLE

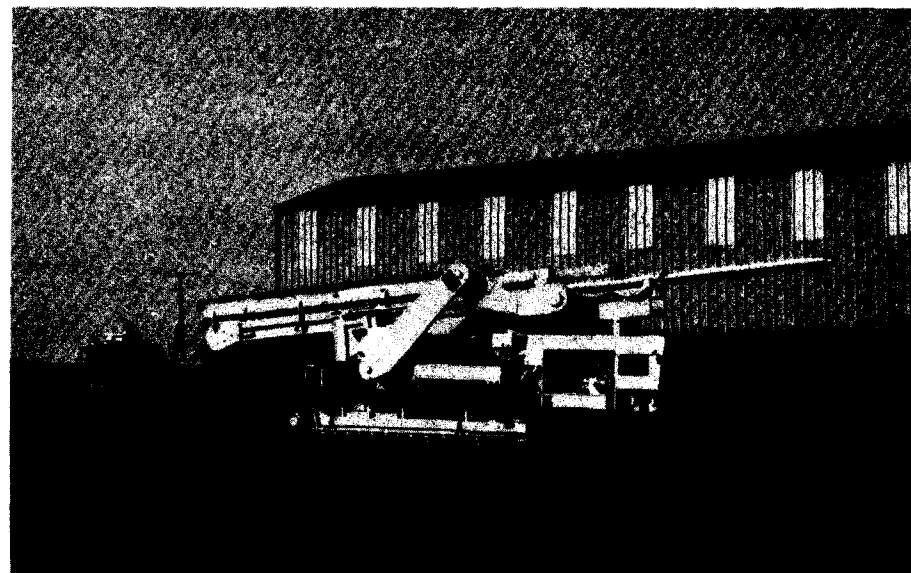
With the need to construct slurry trenches at a faster rate and at a lower cost than previously attainable, a new system has been created. This machine and its basic system was developed in Europe and brought to the United States by Slurry Systems Division of Thatcher Engineering Corporation, Gary, Indiana, where it was modified to meet slurry trenching specifications.

Basically, this rugged machine has a continuous digging chain mounted on a self-propelled vehicle. By adding certain additional requirements to this machine (patents pending) and developing a technique to supply slurry to it, a new system for constructing slurry walls was developed. Depending on the parameters of the project, i.e. specific ground conditions, depth of the trench and the content of the slurry mixture, speed and ultimate cost per foot of trench will vary.

The modified machine is capable of digging to a depth of 24 feet and 12 inches wide. Under ideal conditions it can dig 1000 feet plus of slurry trench per day at maximum depth. For example A project of 20,000 sq. ft. can be produced at the cost of approximately two dollars and fifty cents (\$2.50) per square ft. It should be pointed out that on jobs with less footage or if special slurries are required (Aspemix, etc.), rates are somewhat higher.

As the machine excavates the trench, a plough sled is pulled along. This design feature prevents sloughing of the trench, recycling of excavated material back into the trench, and is used to control the level of the slurry in the trench. Slurry is pumped to trench through a 4 inch hose. The special and undiluted slurry in the trench effectively prevents sidewall collapse and in a few short hours an impermeable barrier is achieved.

A modification to the boom prevents slurry from entering the digging chain area by the use of the slurry gate (patent pending), which reduces waste considerably, Depending on the project, a



variety of different slurries and custom mixes can be used. Among the most common are cement/bentonite or fly ash/bentonite mixes. Cement bentonite mixes are generally used when higher compressive strength is required in a slurry wall. Much of the make-up of the slurry mixture depends on the pollutants or chemicals to be contained by the cut-off trench.

Specifications of the machine are very impressive and point to long operational life under continuous use. A (12) twelve cylinder Deutz Diesel produces 396 net horsepower (SAE) that transmits power through forward and reverse gears to the final hydrostatic/mechanical drive. This rugged piece of equipment is 360 cm (140.4 in.) wide and carries a weight of 32,000 kg. (70,560).

In actual production this new Slurry Wall Construction System is expected to perform extremely well on a variety of projects. This equipment, according to its developer, Slurry Systems Division of Thatcher Engineering Corporation, will ultimately be used on all slurry trench cut off projects where conditions are applicable. This machine will produce the most economical and quality controlled slurry cut-off wall available today.

SLURRY TRENCHES • PILE DRIVING • WATER BARRIERS

CAROLINA SLURRY SYSTEMS
SPECIALTY CONTRACTORS

ROUTE 6, BOX 114 • RALEIGH, N. C. 27612

(919) 788-2573

JIM HARMSTON



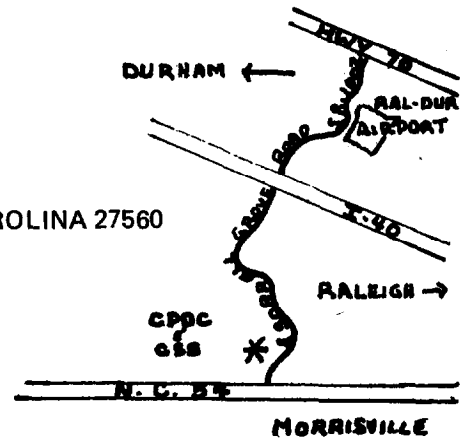
WE'RE MOVING CAROLINA PILE DRIVING CORP. AND CAROLINA SLURRY SYSTEMS

Our new location is on State Road 1002
Sorrell Grove Road, Morrisville, N.C.
between N.C. 54 and I-40

Mailing Address: POST OFFICE BOX 360
MORRISVILLE, NORTH CAROLINA 27560

PHONE: (919) 467-7892

Target Date for Moving
MAY 18 1982

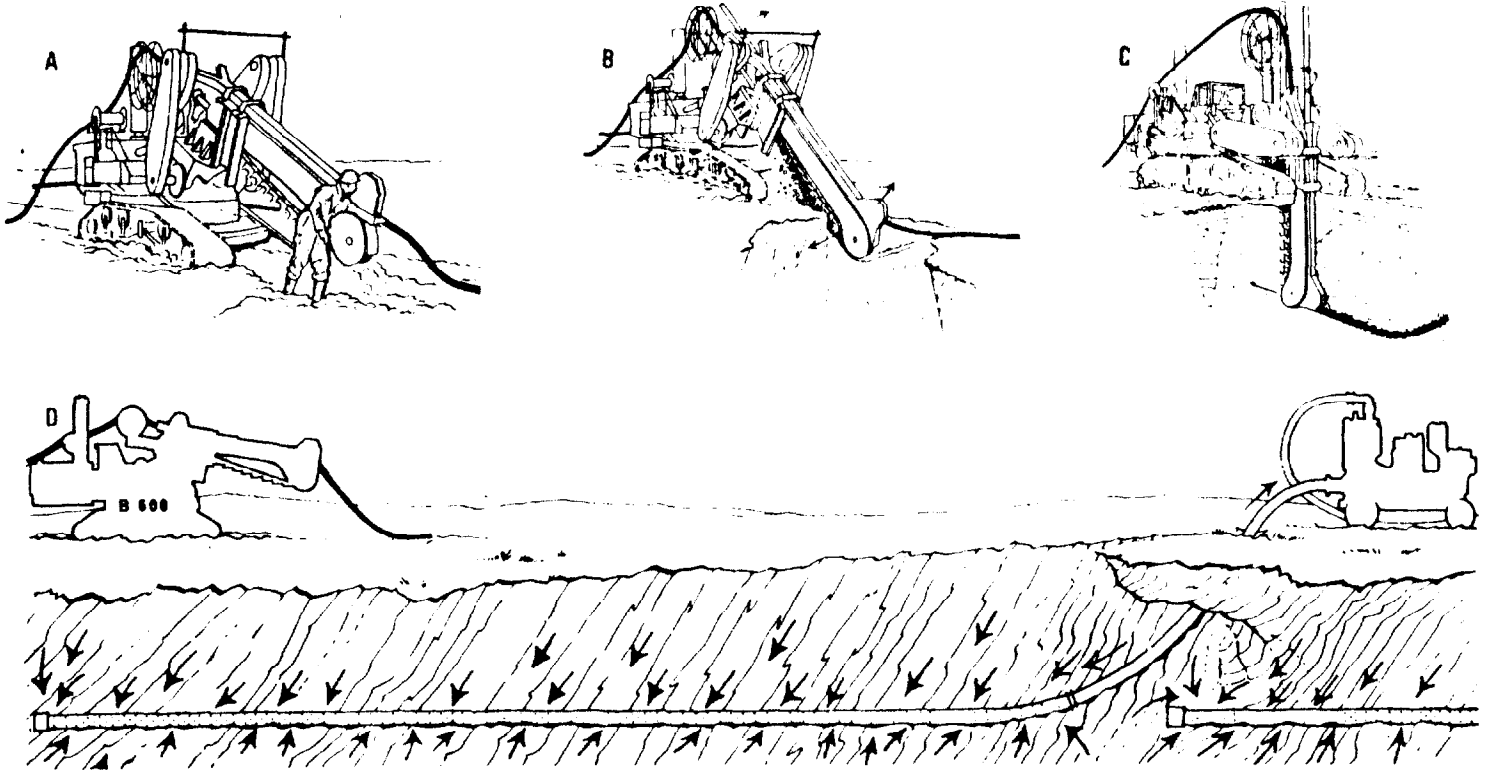


OPERATION

(Fig. A) The digging boom is lowered to just above ground level before the digging chain is started and the boom set to the correct digging depth. The 'Drainflex' plastic pipe is fed in through the sleeve at the back of the cutters.

(Fig. B) The digging chain is then started with the machine stationary and the boom hydraulically placed in to the vertical position, describing an arc through the soil.

(Fig. C) At this stage the forward drive is engaged and the machine moves forward installing the pipe length at the required depth. Speed of travel and cutter speed are adjusted to suit the particular dig.



(Fig. D) At the beginning of a run (or the end if required) a sufficient quantity of unperforated suction line is fed through for connection to the pump at ground level. At the end of the dig, with the cutting chain still operating, the digging boom is retracted by being raised vertically by the rams, then tilted through an arc

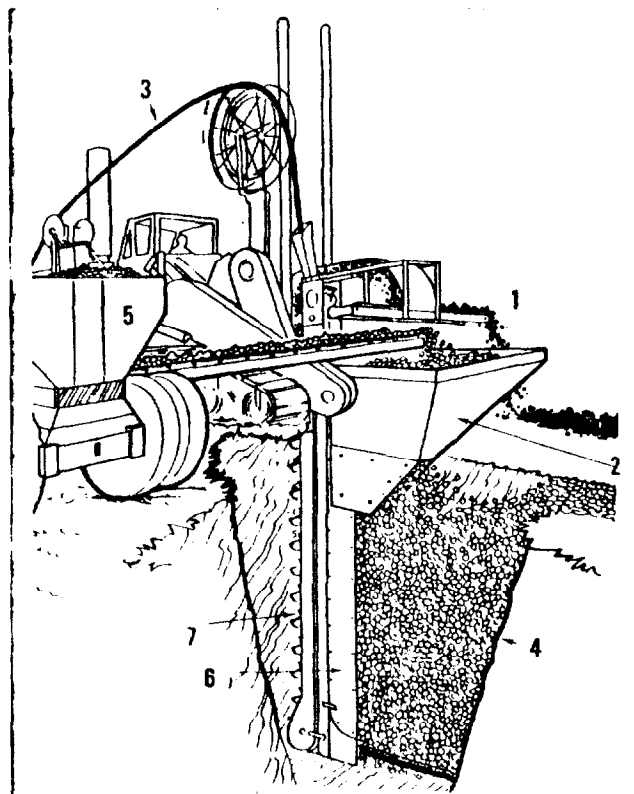
until it is above ground level.

The B600 machine is controlled by the driver with the assistance of an additional hand who makes pipe connections and prepares the p.v.c. pipe for installation.

DEEP DRAINAGE

The B600 machine when equipped with (1) spoil discharge conveyor and (2) aggregate feeder hopper, excavates the necessary trench, lays a (3) perforated p.v.c. pipe, and refills with controlled grading of (4) granular material in one complete operation. This type of work can be carried out quickly and efficiently in unstable ground conditions which normally require trench shoring, and other costly and time consuming site activities, including the use of additional plant. During operation spoil is discharged by means of a conveyor, while granular filter material is continually placed in the open trench by hopper feeder. This, in turn, is kept charged by (5) an aggregate supply unit which incorporates a feed regulator.

(6) Distribution guides ensure the correct placing of media throughout the full depth and width of the trench, and prevent contamination from surrounding material. Aggregate placing is further aided by vibration due to the movement of (7) the cutting chain transmitted through the guides. Should grading be desirable, the height to which the initial material is placed may easily be controlled by an adjustable gate at the distribution guide. Further layers would then be added from a separate source. Apart from speed, simplicity and economy, use of the B600 system of drainlaying requires the minimum of aggregate due to the narrowness of the trench and the method of preventing collapse while the aggregate is placed. It may be operated on slopes of up to twenty degrees.



CAROLINA SLURRY SYSTEMS

ROUTE 8 · BOX 114

RALEIGH, NORTH CAROLINA 27612

(919) 782-2573

9 June 1982

Water and Air Research
Post Office Box 1121
Gainesville, Florida 32602

Attention: Mr. Hugh Putnam

Gentlemen:

Carolina Slurry Systems and Slurry Systems are single discipline organizations of professional engineers, contractors and consultants that offer a variety of construction-oriented engineering services in the field of water impedece and chemical pollution control by using specially designed slurries to contain most known chemicals, brines and polluted effluents. We maintain our own laboratory to offer clients a wide range of specially formulated slurries to impede water pollutants to the specified K-factor of impermeability.

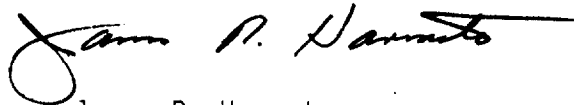
Our equipment for vibrated slurry wall construction consists of cranes and vibrated beam equipment ranging from 30 to 150 ton capacity. For the construction of impervious pond liners, we have a continuous mixer (250 tons/hr) capable of using sand or soil and exact amounts of bentonite per unit of volume to give the desired impermeability to the impervious layer. For trench depths up to 24 feet, we utilize our specially designed deep trencher. This trencher can cut a trench 11" wide and refill it with an undiluted bentonite-cement and water slurry or bentonite-fly ash water slurry, or any other combination tested to withstand the chemistry of the intended effluent to be contained. For special cases where a bentonite base liner or slurries would be adversely affected chemically by the polluted effluents, we can offer our trademark slurry, "ASPEMIX", a cold asphalt emulsion base capable of resisting most known chemicals.

Although the bulk of our activity is concentrated in Illinois and Northern Indiana, our projects include work in Missouri, Michigan, Wisconsin, Pennsylvania, Florida, Mississippi, Maine and North Carolina. The Southeast United States is served by Carolina Slurry Systems, located in Raleigh, North Carolina.

With our advanced techniques for water and waste chemical effluent containments, we would like to offer our services for your present or future consideration.

Enclosed is literature related to the types of work we have performed for various clients.

Sincerely yours,



James R. Harmston

Enclosure

Slurry Black Magic!

ASPEMIX

A revolutionary new development in slurry wall technology!

Aspemix, a cold asphalt emulsion slurry is capable of resisting most known chemicals as a slurry cut-off barrier. Resistant even to concentrated acids and basic solutions. Aspemix slurry cut-off would be highly recommended for the containment of hazardous and toxic wastes.

Custom designed Aspemix slurry placed by our patented vibrating beam techniques will result in an effective impermeable barrier ($K=1 \times 10^{-9}$ cm/sec) and at very moderate cost.

For more information about Aspemix slurry cut-offs just call **(219) 949-0561**, or your nearest Aspemix consultant listed.

Slurry Systems

Contractors and Consultants

Problem solvers in the fields of
construction dewatering,
pollution control and
water conservation.

SLURRY SYSTEMS

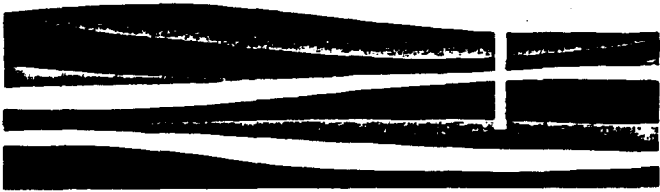
A division of
THATCHER ENGINEERING CORP.
7100 Industrial Avenue
Gary, Indiana 46406
(219) 949-0561 Telex 72-5427

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Route 8, Box 114
Raleigh, North Carolina 27612
(919) 782-2573

JEBCO SLURRY SYSTEMS
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Philadelphia, Pennsylvania 19107
(215) 893-4100

GROUND SLURRY SYSTEMS
415 Seventh Avenue
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Gary, Indiana

SOIL TESTING SERVICES
PFINGSTEN ROAD NORTHBROOK, ILLINOIS 60062
PHONE Chicago 312-273-5440 Northbrook 312-272-6520

October 1, 1980

OCT 2 1980

Frank Zlamal
Slurry Systems
7100 Industrial Avenue
Gary, Indiana 46406

STS Job No. 21778

Dear Mr. Zlamal:

As per your instructions, a permeability test was performed on an asphalt slurry wall mixture, using the leachate provided by your company. The specimen labeled "North Wall 100 ft east of west wall intersection" was chosen for the test. The permeability test was performed for a total of 16 days. In accordance with your instructions (as per our telephone conversation on September 25, 1980), the test was terminated because we were unable to achieve a flow through the specimen.

The specimen was set up in a triaxial chamber which enables much quicker sample saturation than a normal permeameter. The rubber membrane which is placed around the specimen to isolate the sample from the water in the triaxial cell, conforms to the surface contours of the sample thus eliminating the possibility of fluids channeling around the specimen and giving an inaccurate permeability value.

A head of 1090 cm was initially placed on the specimen. Two days later the head was increased to 2090 cm and three days after the specimen was set in the chamber, the head was increased to 8090 cm. Both the fluid entering and leaving the specimen was monitored, however, at the end of the sixteen day period, there was no visible sign of fluid entering or leaving the specimen. The saturation lines were periodically checked to insure that they were not clogged and that there was an uninhibited flow to the specimen.

Based on the permeability test performed on the sample, using the leachate provided, the implication is that the material has either a very low permeability or is completely impermeable with the leachate used.

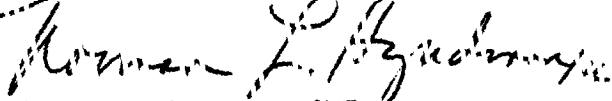
We have calculated permeabilities for a hypothetical case with the same pressure and equipment, and a sample of the same dimensions, assuming different amounts of fluid passed through the sample. These calculations are listed in Table I. We believe the permeability of the asphalt slurry material could be determined in the laboratory providing a long term test is anticipated, possibly several months and equipment capable of measuring minute volumes of fluid is utilized.

Chemical reaction between the leachate and sample should be explored as a mechanism which could alter the permeability of the material.

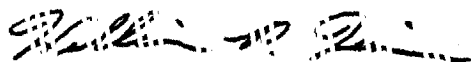
If there are any questions regarding this report or its contents, please give us a call.

Sincerely,

SOIL TESTING SERVICES, INC.



Norman L. Hyndman, P.E.
Project Engineer



William P. Quinn
Laboratory Director

BT

encl.

TABLE I

Assumed Amount of Fluid Passed through Specimen (cm ³)	Hypothetical Permeability (cm/sec)
34.0	1×10^{-8}
37.0	1×10^{-9}
4.7	1×10^{-10}
1.4	1×10^{-11}

CAROLINA SLURRY SYSTEMS

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ABSTRACT

VIBRATED BEAM TECHNIQUE FOR THIN SLURRY WALL BARRIERS - APPLICATION IN CONSTRUCTION AND ENVIRONMENTAL SITUATIONS

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Construction dewatering has been an expensive and troublesome problem for many years. The problems stem from the boundary conditions, troublesome water volumes, and high pore pressures in embankments causing loss of shear strength and bank movements.

Using the Vibrated Beam Technique for the walls and taking advantage of a natural impermeable layer for the bottom, the construction excavation can now be isolated by this open top box configuration from the ground water table. The excavation can now be dewatered by a sump type system. This method has the benefits of minimizing damage done by offsite dewatering, reducing pump or well point maintenance and virtually eliminating additional or unplanned dewatering costs for future or extended construction schedules.

Water conservation and storage is currently one of the biggest problems facing the power industry and industry in general. The Thin Wall Installation Technique provides a water barrier that will stop leakage through dikes, levees, and embankments. Thus, water can be retained during spring flood periods and stored efficiently until it is needed by the power company or industrial plant.

Waste containment as dictated by ecology and stringent EPA requirements has created a major problem for industrial and urban environments. The problem is currently solved by transporting wastes to an acceptable holding area or providing an acceptable disposal site near the source of the waste. Granular or permeable soils are the big problems, and again, the thin wall with properly designed slurry mix to withstand chemical environments gives the isolation to the disposal site needed to meet the EPA requirements.

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A. History and Development

The vibrated beam technique for water barrier type Slurry Walls was started in Europe approximately 22 years ago. It is an improvement over the system where grout pipes were welded to individual interlocking sheet piles and then conventionally driven into the ground and grouted as they were extracted. This method was a very slow and expensive way of installing a grout or slurry curtain wall.

The vibratory driver-extractor which came into the commercial market in the late 1950s and early 1960s provided a machine that could both drive and extract a pile without changing from a conventional hammer to an extractor. Because of the vibratory (hammer-extractor) a new technique of reusing the same beam element and overlapping with the previous beam insertion was brought into use. This overlapping helps insure a continuous wall.

The "WF" structural element was used because of its good column strength properties and narrow web. The web gives a thin wall section and the flanges insure a good section modulus for the beam.

This technique has successfully been used to install in excess of 50 million SF of thin slurry wall in Europe as of 1974 with no known failures. In the United States in excess of 1 million SF has been successfully installed with many improvements being made on equipment, slurry quality, and installation techniques.

- A.1 Definition of a Thin Slurry Cutoff Wall is any wall made with a cement-bentonite (C-B) mixture with a wall width of one to twelve inches. The sole function of the wall is the impedance of the flow of water. This impedance however, gives many structural advantages to earth support in dikes and berms.
- A.2 The physical makeup and advantages can best be explained by comparing it to the American Soil-Bentonite (S-B) Slurry Trench.

Materials

- a. Thin Wall - Cement-Bentonite 15 cm Wall - 9kg of bentonite/m² of wall.
- b. Slurry Trench - Soil-Bentonite 75 cm Wall - 8 or less kg of bentonite/m² of wall.

Equipment (Determines width of trench)

- a. Thin Wall - Vibrated Beam and Trenching Machine (one to twelve inches).
- b. Slurry Trench - Backhoe, Clamshell, and Dragline (one to ten feet).

Minimum width is three feet if S-B backfill is pushed into trench by dozer; less than three feet would restrict free flow of backfill material.

Filter Cake

- a. Thin Wall - (Filter cake is dense and undisturbed). Low filtrate loss is indication of firm and dense filter cake.
- b. Slurry Trench - Filter cake is created while the trench is excavated and could be disturbed by the excavation and backfilling operation.

Gel

- a. Thin Wall - Bridging effect of cement plus deeper penetration due to injection pressure.
- b. Slurry Trench - Normal penetration due to static HD pressure.

Backfill

- a. Thin Wall - Cement-bentonite is homogenous and gives excellent bridging and erosion protection.
- b. Slurry Trench - Lacks quality control in both mixing and backfill placement.

Width of Wall

- a. Thin Wall - One inch to 12 inches and gives maximum concentration of quality bentonite.
- b. Slurry Trench - Depends on the equipment used to excavate trench.

Economical Depth

- a. Thin Wall - Presently in excess of 80 feet (as equipment improves, possibly deeper).
- b. Slurry Trench - (Depends on equipment used).
Backhoe - 48 feet; Calmshell - in excess of 100 feet.

Impermeability (Average)

- a. Thin Wall - $k = 1 \times 10^{-7}$ cm/sec (C-B)
 $k = 1 \times 10^{-8}$ cm/sec (Aspemix)
- b. Slurry Trench - $k = 1 \times 10^{-5}$ cm/sec (S-B)

Quality Control

- a. Thin Wall - Mixing of slurry is done under batch plant controlled conditions and placed or injected directly into its permanent wall location.

- b. Slurry Trench - Mixing of slurry is usually very crude at best; slurry is mixed with backfill by some type of dozer or grader; the S-B mixture is pushed into the trench. It is virtually impossible to maintain quality control with this system.

B. Application in Construction and Environmental Situations

B.1 Construction dewatering has been an expensive and troublesome problem for many years. The problems stem from the boundary conditions, troublesome water volumes, and high pore pressures in embankments causing loss of shear strength and bank movements.

Using the Vibrated Beam Technique for the walls and taking advantage of a natural impermeable layer for the bottom, the construction excavation can now be isolated by this open top box configuration from the ground water table. The excavation can now be dewatered by a sump type system. This method has the benefits of minimizing damage done by off-site dewatering, reducing pump or well point maintenance, and virtually eliminating additional or unplanned dewatering costs for future or extended construction schedules.

B.2 Water conservation and storage is currently one of the biggest problems facing the power industry and industry in general. The Thin Wall Installation Technique provides a water barrier that will stop leakage thru dikes, levees, and embankments. Thus, water can be retained during spring flood periods and stored efficiently until it is needed by the power company or industrial plant.

B.3 Waste containment as dictated by ecology and stringent EPA requirements has created a major problem for industrial and urban

environments. The problem is currently solved by transporting wastes to an acceptable holding area or providing an acceptable disposal site near the source of the waste. Granular or permeable soils are the big problems and again, the thin wall, with properly designed slurry mix to withstand chemical environments, gives the isolation to the disposal site needed to meet the EPA requirements.

Depending on the chemistry of wastes a variety of different slurries and custom researched mixes can be used for the cut off walls for the particular problem wastes and chemicals. The common slurries consists of cement-bentonite water in various proportions when higher compressive strength is required. Fly Ash-Bentonite and water are used for impermeability stability in reactive soils. For high saline conditions, bentonite-kaolin water slurries are beneficial.

C. Site and Soil Conditions Best Suited for a Thin Wall Installation

Basically, a flat level surface approximately six feet wider than the width of the crane tracks will suffice for a horizontal working clearance. This can be an elevated surface such as on the top of a berm, on a flat surface at grade, or in the bottom of a trench. The geometry or plane view of the wall should be basically straight line segments, although curves made by rough chord segments can be negotiated. Vertical clearances will be determined by slurry wall depth plus an additional increment for height of the leads. (See Sketch No. 1 for typical dike cross-section).

Soils best suited for vibratory beam installation are the saturated loose granular type, although layers of clay and silt can be penetrated without too much difficulty or loss of efficiency. Medium and stiff clays in thick layers are hard to penetrate and would have to be pre-trenched to continue the wall to a greater depth.

One of the best features of the thin wall is that it regulates its own width with the permeability of the encountered soil. In effect, the higher the permeability, the thicker the wall; conversely, the lower the permeability, the thinner the wall. This produces corresponding wall widths as they are needed to control seepage. Fine sand with a Darcy K Factor 1×10^{-3} cm/sec produce minimal slurry infiltration into the sand voids. Therefore, the geometry of the wall left by the cross-section of the penetrating beam will be the size of the slurry wall.

D. Design Considerations for Permeability and Seepage Criteria

The permeability is basically a function of the slurry materials and the mixing procedure. Basically, it can be said that the least impermeability will be achieved with the highest concentration of the most active natural bentonite particles in a dispersed orientation. Therefore, by using the correct mixing procedure, the best natural Wyoming Bentonite and chemical additives (if required), a highly impermeable plastic slurry wall will be produced.

We have studied the three parts of a slurry wall; namely, the gel, filter cake and backfill, to determine the relative effect each has on the average K Factor for the whole slurry wall. We know the filter cake is the main factor, and the width of the trench wall becomes less and less of a governing factor for seepage control.

The cement is added to the bentonite slurry for two purposes: 1) To give longevity or erosion protection to the slurry wall from migrating ground waters; and, 2) To increase the slurry bridging action so that a large amount of slurry material is not being wasted in a highly permeable or cobblestone-like soil strata.

The insitu pumping test performed at the Wheatfield site gave an average Darcy K Factor in 40 days of 8.7×10^{-8} cm/sec. Thus, by using an average wall width of 3 1/2 inches and knowing the average differential hydraulic head, one can calculate the theoretical seepage passing thru the wall.

A very important side benefit of the beam action is the compaction and densification that it gives to the soil mass in the vicinity of the thin slurry wall. This will both reduce permeability and add to the shear strength of the soil mass.

Engineering Design Considerations

Theoretical Model - The problem is either impoundment or construction dewatering and in either case one has to build a model and establish all the critical dimensions.

Chemistry - Chemistry of liquid to impound or dewater (construction site) is needed to check for adverse condition on the materials used in the water impedance system.

Geology and Soil Data - Geological history of the area along with a sufficient soil exploration program are needed to establish the necessary permeability and soil strength information for slurry wall and embankment design. Minimum boring information should be: soil classification, n values, grain size, distribution, depth to impervious layer or strata, and water table elevation.

Average Differential Hydraulic Head - To make a total seepage calculation one will have to know the maximum and minimum differential hydraulic head in contact with the slurry wall and the time each is in effect. From this, one has to

interpolate the average hydraulic head in contact with the slurry wall over the time involved in the calculation.

Factor of Safety - This will depend mainly on the permanence and liability of partial failure. The following are guidelines:

1. Construction dewatering less than 6 months 1.5 Factor of Safety
2. Construction dewatering greater than 6 months 2.0 Factor of Safety
3. Permanent systems 3.0 Factor of Safety

Structural Analysis - In the thin wall technique, the strength of the berm or embankment in which the slurry wall is installed is the sole support of the system. It should be noted that the downstream side of the soil support system will be in a drained condition.

Impermeability and Seepage Analysis - Using the theoretical model for dimensions and the slurry wall and support system impermeabilities, it is possible to make seepage rate calculations.

Weather and Dehydration Protection - In any cement-bentonite system, it is recommended to cap or cover the completed wall to protect against freezing and drying.

E. Selection of Equipment

E.1 The Vibrator: The vibrator is the most important piece of equipment, the most expensive, and the most likely to break down. However, recent developments and improvements in the electrical and mechanical systems have made it a much more dependable and reliable machine.

Size and power will depend on depth of required penetration and density of material being penetrated. At the Wheatfield site, the tandem 4-75 PTC Vibrator as distributed by the L. B. Foster Company was used with great success. This vibrator uses four 75 H.P. electric motors to drive its eccentric weights thru the transmissions. The eccentric moment created was 6,940 (in lbs.) and the frequency was approximately 1000 cycles per minute. This can be varied somewhat by changing the electric drive sprocket ratios in an attempt to match the natural frequency of the soil being penetrated. The suspended weight of this vibrator is approximately 20 tons and in addition to this, the beam weight must be added to produce a total suspended weight. Calculations should be made for each job such that the vibrator is powerful enough to move the beam into the soil with enough amplitude and force to penetrate the soil media in question.

There other types and sizes of vibrators on the market with each having its own special advantages and applications.

It can be expected that the vibratory (driver-extractor) will improve in efficiency and dependability as time goes on and thus help reduce the unit costs of future slurry walls using this technique. (See Sketch No. 2 for typical vibrated beam setup).

E.2 Crane and Leads: The crawler crane should be sufficient capacity to handle the weight of the vibrator, leads, and beam with a safety factor of approximately 1.5. The operation is mainly a hoisting one and therefore, primary emphasis is on the line pull, line speed, and low maintenance hoisting equipment.

In our operations we use mostly the Manitowoc 3900 because of these features. Additionally, the section of counterweight can be replaced by a support frame with the vibrator generator sets for

balance, stability, and mobility. This makes a highly efficient and versatile vibrating beam setup.

The vibrator guiding leads are very similar to that used for tight tolerance pile driving installations with the following exceptions: 1) The vibrator dimensions are such that it has to be kept external to the lead; 2) The bottom of the lead has a vertical hydraulic support ram with a bearing pad to provide stability and thus, insure more accurate control on plumbness; and 3) The lead has a spotter that is adjustable to and from as well as laterally to the crane. Adjustability for plumbness control is very necessary to compensate for crawler crane instability over fairly loose and uneven ground.

By use of the hydraulic ground support pad, the lead becomes a loaded column with certain restraints. The lead design must take into account the loads and moments as an eccentric column.

E.3 Injection Beam: The injection beam is a standard "WF" section with enough moment of inertia and rigidity to maintain vertical straightness without bowing under the dead weight and forces of the vibrator. To this beam, wear plates are welded at the tip to give both dimensions and abrasion resistance. Also, slurry supply pipes are welded full length along with replaceable nozzles for the injection of the slurry.

In addition to the vibratory force, a jetting action thru the nozzles of the penetrating beam can be utilized to help the penetration rate, and also partially fill voids in highly permeable grounds.

At the Wheatfield Project 33", 30" and 27" WF sections ranging in weight from 150 to 190 lbs/ft., were utilized. The best

results came from a high strength 30 WF 190 with additional steel stiffeners added to the web section. This beam was far superior structurally; however, its abrasion or wear resistance seemed no better than an A36 beam of the same section.

In general, it can be said both the beam size and steel composition should be carefully selected to meet specific soil and job conditions. (See Sketch No. 2 for basic beam configuration).

E.4 Slurry Mixing Equipment: Vibrated Beam Slurry Wall Installation requires a high volume of slurry; therefore, both the jetting and shearing principles for mixing are employed. The mixing process starts by weighing both the bentonite and cement. The bentonite is augered from the weight batcher into a stream of water and continuously pumped thru a centrifugal pump for approximately four (4) minutes. During this period, an additive, if needed to protect the bentonite from cement contamination, is added. By providing this protection, the filtrate loss of the slurry is held to a relatively low value (less than 50 ml loss in 20 min. @ 50 PSI). Next the cement is added and again mixed thru the pump for approximately another three (3) minutes. The slurry mixture is now ready to be stored or pumped to the vibrated beam injection rig. With a cement-bentonite mixture there is a limited life of pumpability or liquidity; therefore, only a limited amount of slurry should be premixed and stored ahead of time.

Before the vibrated beam slurry wall project is started, we conduct many tests in our lab to either verify the design engineer's data for the slurry design or, if our own design, to set the standards for the field duplication. These tests are directed at producing a wall of desired impermeability, uniform geometry and plasticity. These

features are considered to be the governing criteria for vibrated beam slurry wall construction. The plasticity is controlled by keeping the filtrate loss low and therefore, leaving a remoldable material of approximately 5 lbs/sq. in. While providing impermeability, it also allows for future jointing if needed, eliminates cracking, minimizes shrinking and wall subsidence, and provides a good boundary seal (not a cold joint) on any shale or rock-like layer. These properties should give this water barrier the best overall performance in controlling seepage.

Beam geometry and wall continuity is insured by utilizing a 3 1/2" X 14" fin welded to the vibrating beam tip along with the normal 4" beam overlap. (See Sketch No. 3 & 4 for insitu wall configuration).

E.5 Slurry Transfer: For each job the slurry transfer is studied for the best and most suitable batch plant location. By using positive displacement pumps, the slurry can be pumped into the injection beam effectively up to the distance of 2,500 feet. The other method is pumping from the batch plant to the injection rig storage tank. Because of labor costs, the direct pumping method into the injection beam is preferred. However, it should be pointed out that both longer pumping distances and extreme weather could force the situation to a slurry transporting method into the rig storage tank.

F. Deep Trencher

The importance of cost is always a factor. However, one must realize this can vary considerably from one job site to another.

In an effort to provide cost reduction in slurry trench construction, the Slurry Systems Division of Thatcher Engineering Corporation developed a slurry wall system by using a deep trencher. The basic machine was constructed in Europe and brought to the United States where it was modified for slurry trench installations. A vertical digging continuous chain mounted on a self-propelled tracked vehicle can excavate a trench 12" wide to a maximum depth of 24'. With modifications that were made to the digging chain, it is possible to backfill the excavated area with undiluted slurry. A new slurry wall construction has been developed as a result of modifications made to this machine.

In light sandy soil the trencher is capable of digging 1000 plus lineal feet of trench at a full depth per day. As the trench is being excavated, a sled is pulled along and protects the trench from excavated materials reentering the trench. The sled also has a function of controlling trench erosion and collapse by utilizing a 3' deep by 6' long trench box. Undiluted slurry in the trench keeps the vertical sidewalls from collapsing and the impermeable wall is created. Major modifications to the boom were required to prevent the slurry from flowing into the digging chain cavity. A pneumatic flap device was designed extending the full depth of side wall (patent pending) which reduces the waste of slurry.

As for the trencher specification, a 12 cylinder Deutz Diesel supplies the power producing 396 net HP. Power is transmitted through the hydrostatic and gear drives. The machine weighs some 35 tons.

In summary, where applicable, this machine will produce an economical and high quality controlled cut-off slurry wall.

G. Aspemix Research

G.1 Research: I would like to briefly describe the new type of slurry called "Aspemix." The slurry has been researched for Slurry Systems by a consulting team at Purdue University headed by Dr. Sidney Diamond.

The object of the investigation was to develop a formulation or series of formulations providing the required impermeability to Darcy's co-efficient of 1×10^{-8} cm/sec., while being pumpable either to the Vibrating Beam Method or the Deep Trencher Method.

This Slurry consists of cement-asphalt emulsion, Fly Ash, sand and water. The extensive series of laboratory investigations were aimed at developing, testing and refining an appropriate combination for use as a permanent liquid barrier material capable of being applied by the vibrated beam or similar process. Although such mixes are necessarily more expensive than the bentonite-base slurries, they have a significant advantage in the degree of impermeability and resistance to attack by acids, brines and other industrial chemical wastes and strong pollutants.

The mechanical behavior of "Aspemix" slurry wall is exceedingly favorable. The modulus of elasticity is approximately 1500-2000 psi; thus, the impounded wall should deflect with ease in the event of soil movement.

G.2 Environmental Applications: As previously mentioned, "Aspemix" slurry provides impermeability and chemical resistance to acids and brines, and the test mixes showed virtually no sign of attack from a host of chemically aggressive fluids. Aspemix mixes which have been exposed for prolonged periods or have had reasonable

amounts of water passage undergo an internal swelling and seal shut. Permeability decreases with time of standing.

We see the application of "Aspemix" slurry in environmental situations where bentonite-base slurry's barriers would be adversely effected by wastes or pollutants to be contained.

H. Costs

The important item of cost is always a factor. However, one must realize this can vary considerably from one site to another. In an effort to provide cost information the following prices are submitted:

VIBRATED BEAM			
<u>Minimum Wall Thickness</u>	<u>Depth</u>	<u>Soil Densities</u>	<u>Cost</u>
A. 1 inch	less than 20	less than 30	\$2.00/sq. ft. plus
B. 1 inch	less than 80	less than 30	\$2.50/sq. ft. plus
C. 1 inch	less than 80	less than 60	\$2.75/sq. ft. plus
D. 3 inches	less than 80	less than 30	\$3.50/sq. ft. plus
E. 3 inches	less than 80	less than 60	\$3.50/sq. ft. plus

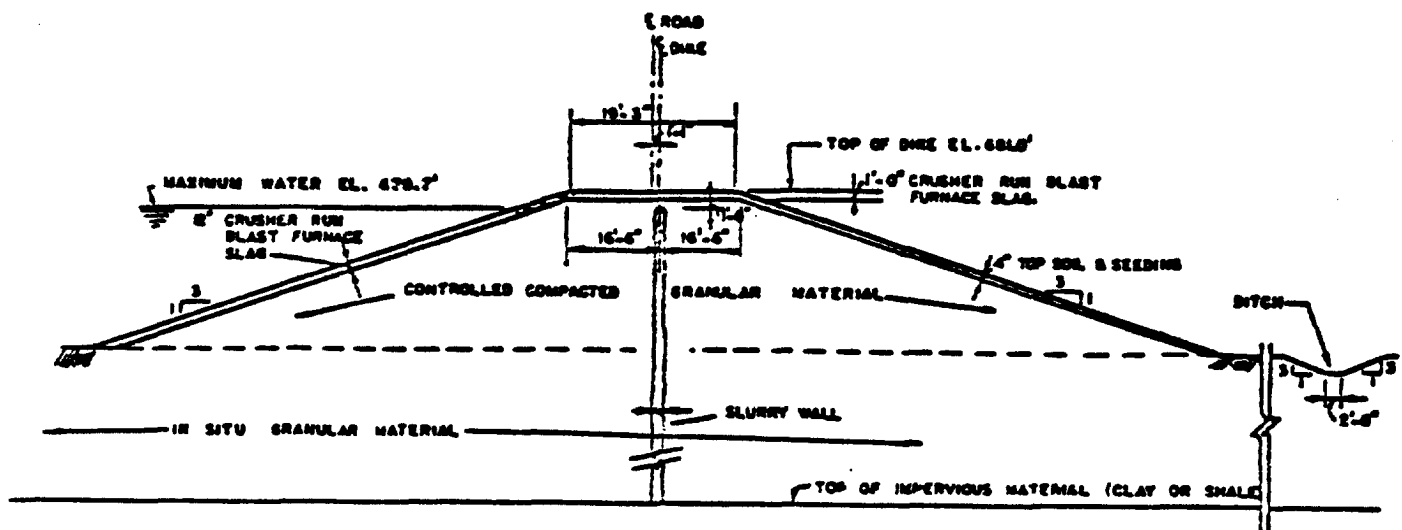
"ASPEMIX" SLURRY WALL

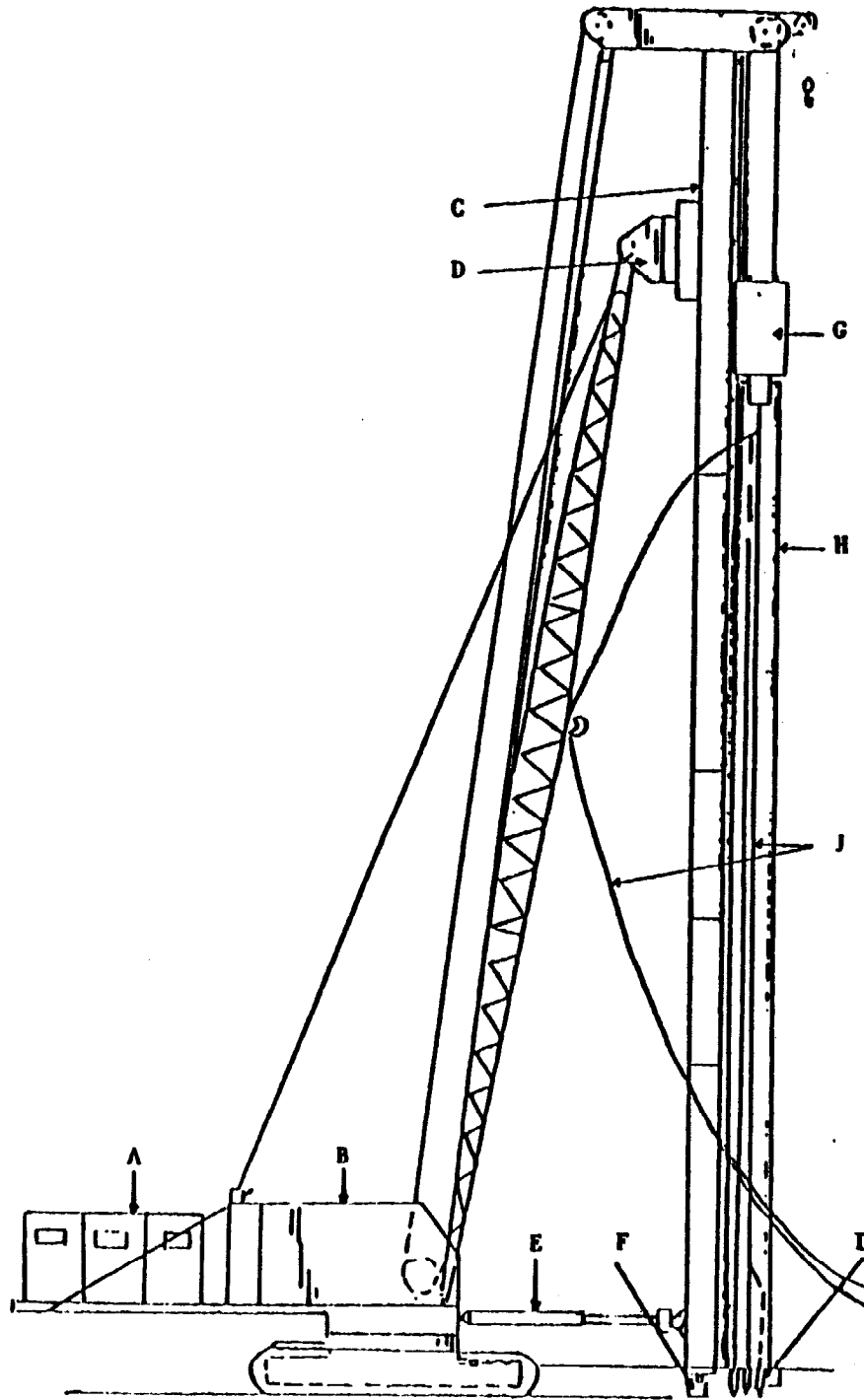
Priced on Request

The preceeding does not include mobilization and extreme water supply or treatment problems.

SPECIAL SLURRIES ON REQUEST

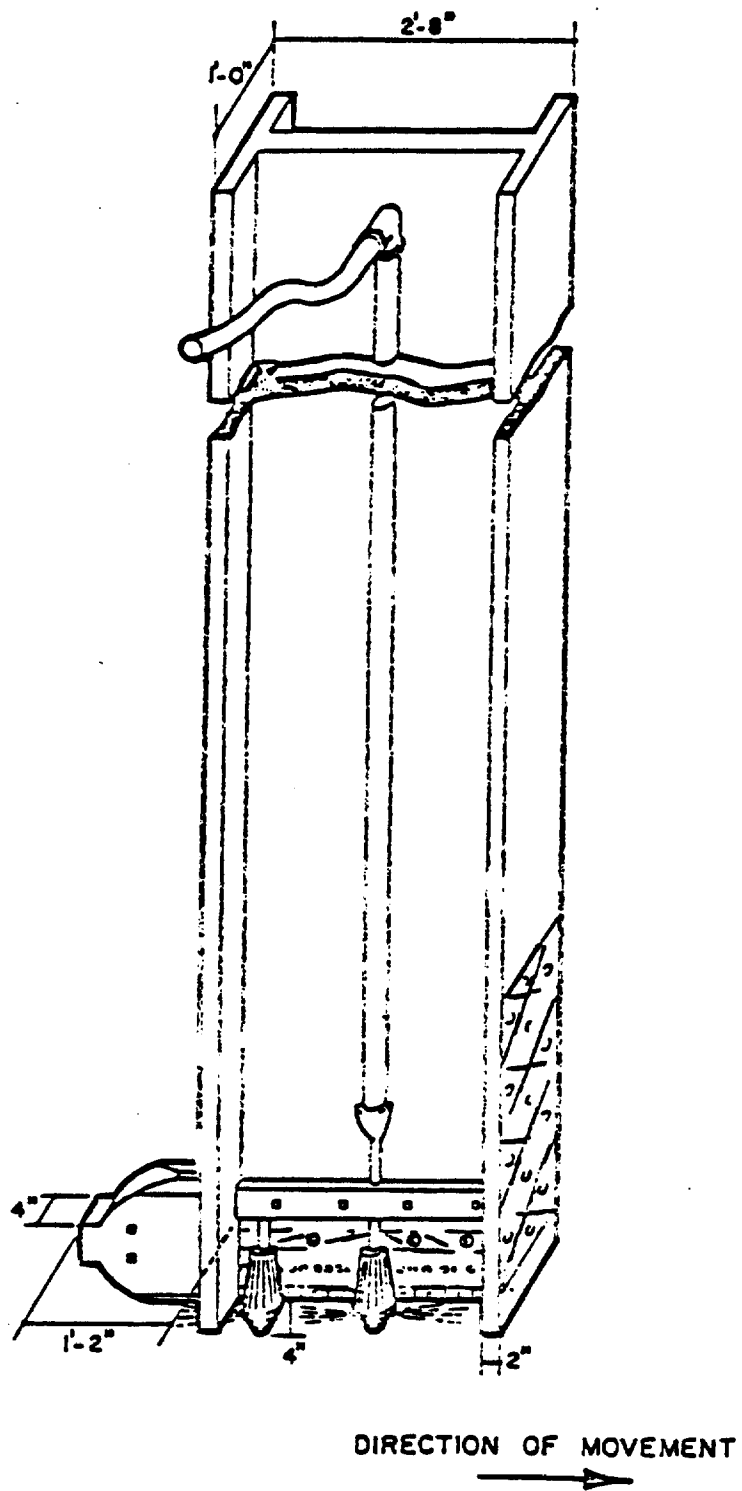
Sketch No. 1



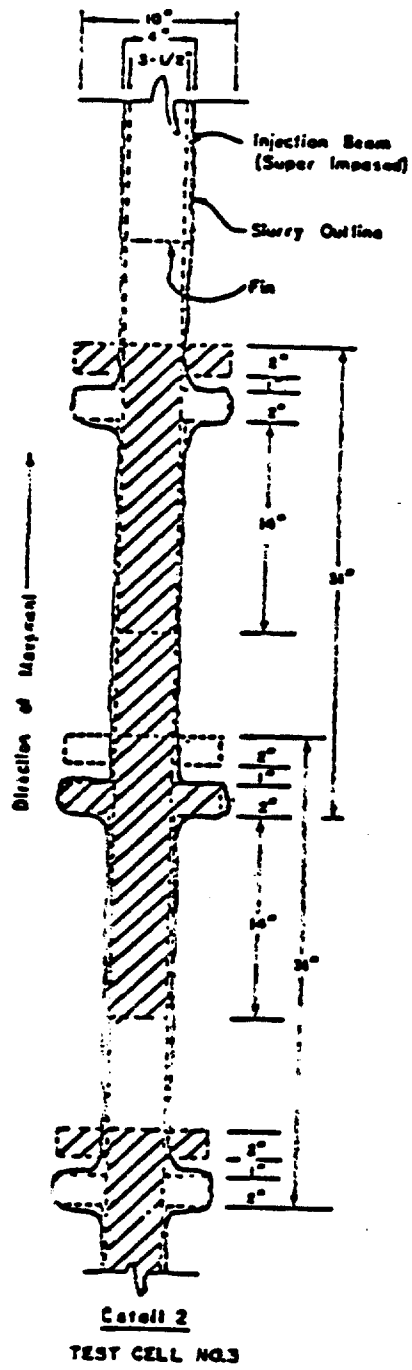


TYPICAL VIBRATED BEAM INJECTION SET UP

- A. Generator Sets
- B. Crane
- C. Leads
- D. Boom Point Swivel
- E. Adjustable A Frame
- F. Support Foot
- G. Vibrator
- H. Injection Beam
- I. Nozzles & Fin
- J. Slurry Injection Lines



BEAM CONFIGURATION FOR INSTALLATION
OF TEST CELL 3
SCHAFER GENERATING STATION



PLAN VIEW OF COMPLETED SLURRY WALL

Vibrating beam injects thin cutoff walls

A 10-year-old European method of placing slurry walls, imported here only last year, has chopped costs by one-third for a contractor building underground pollution barriers for a Midwestern powerplant.

"What we've done is to take the European method and make a lot of improvements on it," says Fred C. Schmednecht, vice president of Thatcher Engineering Co. (TEC) Waukegan, Ill. Officials from TEC and Calumet Trucking Co., Gary, Ind., visited several construction projects in France, Germany and Austria in 1974, to learn about the method.

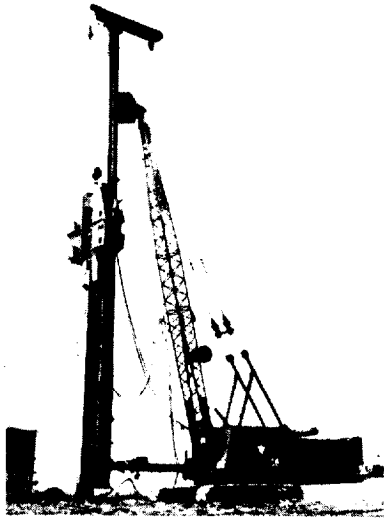
Calumet has the prime \$8-million contract for earthmoving and slurry wall construction around three wastewater treatment ponds at the Rollin Schafer coal-fired powerplant near Wheatfield, Ind. The plant is owned by Northern Indiana Public Service Co.

A joint venture of TEC and Phillip Holzmann AG, Frankfurt, will wrap up construction this month on 1.2 million sq ft of the 4-in.-thick wall. Nearly 5 miles of it, reaching an average of 45 ft deep, surround the three ponds. Because the entire site is underlain by a shale formation, the contractor simply extended the wall through the ponds' 20-ft dikes down to the shale.

"When we saw this slurry wall method working within 10 ft of the Danube River in Austria, we knew it could work here," says David R. Bihlman, president of Calumet Trucking. The procedure is called the vibrating beam injection method. Bentonite-cement slurry flows through two pipes to three jets at the bottom of a vertical steel I-beam (see photo). As a 17-ton French-made vibrating hammer sinks the beam into the sandy soil, slurry is injected to lubricate the beam's downward path.

From the bottom up. The wall is built as the beam is pulled back up, because more slurry is injected during withdrawal, as it flows under the void left by the beam on the way up. Upon completion of one 40-in.-long section, the crane backs up and repeats the cycle. In 45-ft depths, the machine can put down about 90 ft of wall in a 24-hour day.

What makes the method new in this country are the injection method and the bentonite and cement mixture, says Schmednecht. He says TEC and Holzmann "spent all last winter experi-



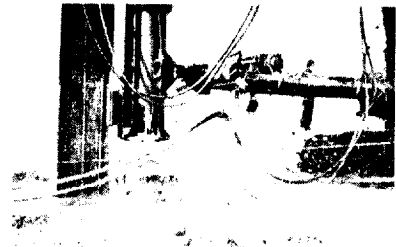
Vibrating hammer sinks beam.

menting with 300 to 400 different mixtures, getting it to come out right." Besides bentonite and cement, soda ash and a phosphate additive go into each batch. The phosphate helps the bentonite retain its moisture as it hardens and keeps the clay-cement mixture from cracking. Schmednecht says the final product, a firm gel that is slick to the touch, has a design life of 40 years, mainly due to the permanence of the cement.

Bihlman and Schmednecht say that despite some equipment problems, if the soil is soft enough for the beam to penetrate, the vibrating beam method is superior to conventional slurry trench excavation methods. The Indiana job was bid at \$3 per sq ft, compared to \$4 or \$5 per sq ft for conventional methods using a clamshell or backhoe to excavate. Because the vibrating beam allows the contractor to inject a very thin membrane, the old 30-in.-wide trench, often slow to excavate with a clamshell, is not needed.

Long injection beam. The key to the process is the 50-ft-long injection beam, which was designed by TEC and Holzmann. The beam itself is a 33-in., wide-flange section that weighs 190 lb per ft. Two pipes run along its length and connect to three nozzles at the bottom that are evenly spaced across the 33-in. width. The beam's web carves out the spine of the wall, and the flanges stabilize it during the 900 to 1,200 vibrations per minute delivered to its top.

To insure continuity in the wall, each time the crane backs up and the beam



Slurry lubricates beam going down.



Beam fin forms tongue-and-groove joint.



Cutoff is irregular but tight.

is lowered, it overlaps the last section by 18 in., the width of a 14-in. fin, plus 4 in. of beam. The steel fin, welded to the flange and pointing away from the crane travel (see photo) cuts a groove in the last-placed section of wall, allowing fresh liquid to be injected. This forms a keyway at the juncture.

The crane leads that support the vibrator are sections of 20-in.-dia steel pipe. TEC-Holzmann uses 90 ft of lead, and Schmednecht says the rig could be set up to go 70 ft deep.

Two of the rigs have worked six-day weeks, 24 hours a day since August. Rate of progress is up to about 4,200 sq ft of wall per machine per 24-hour shift. Schmednecht figures the rigs cost \$500 per hour to operate, and says the price tag for one entire outfit is about \$600,000.

Officials with TEC and Calumet Trucking foresee enough new possibilities for the slurry wall technique that they have formed a new company, Slurry Systems Specialists, Inc., East Chicago, Ind.

Westvaco

NEWS & VIEWS

Reporting news about
Westvaco's
people and activities
at Charleston

DECEMBER, 1981

FEATURING the Production and Marketing of RENEWABLE RESOURCE CHEMICALS





DUCK HUNTER'S PRAYER

*Lord, I've oiled my guns and greased my boots
I've caulked my boat
And laid out my hunting suit
I've painted the decoys and counted my shells
Begged for time off at work
And listened to the old wife yell*

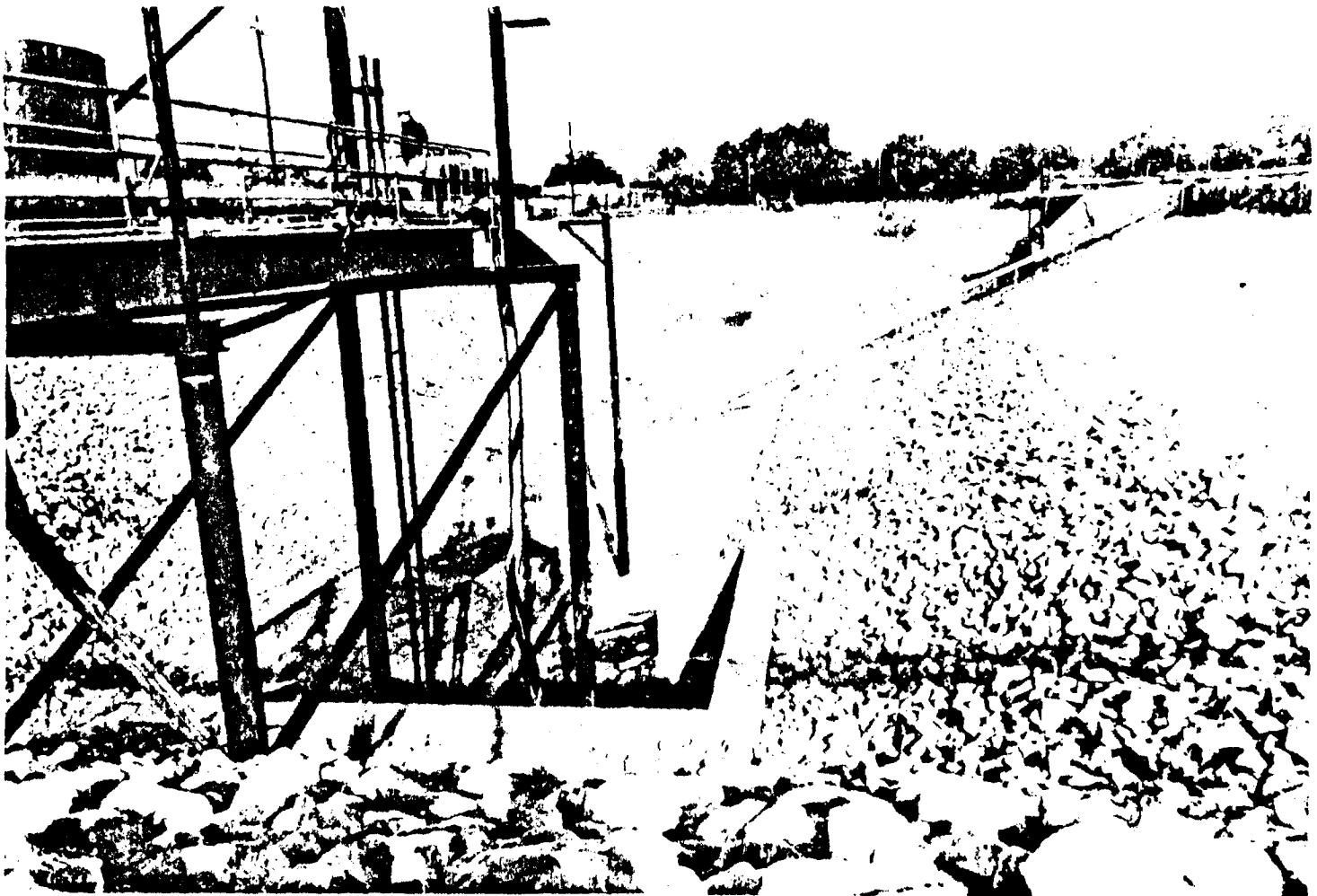
*I've mended the boards on the broken dock
Taught that black dog to fetch
With my old hunting socks
Put the motor on the boat
And the coffee in the pot*

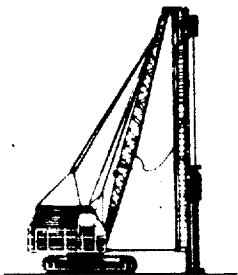
*Morning's coming Lord it's opening day
So please shine the light of luck along my way
Of all the things I've asked in the past
The one request I hope you'll keep
Good Lord
Please . . . Don't let me oversleep.*

Legate M. Johnson

BLACK LIQUOR LAGOON READY FOR USE

The huge, empty pond, pictured below was recently constructed by applying Slurry System's vibratory beam technique. A vertical wall of bentonite and slurry mix was driven down, by means of a vibrating beam, into the dirt dike. The slurry wall meets with the shell-marl strata, found common to the Lowcountry, and forms an impervious basin. The bottom of the deepest part of the excavation is formed by the natural marl. This black liquor lagoon has a 12 million gallon storage capacity.

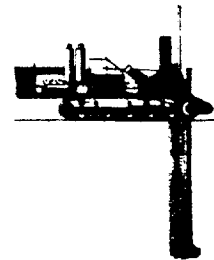




Sluppy Systems

CONTRACTORS & CONSULTANTS

a division of Thatcher Engineering Corporation



SPECIFICATIONS FOR ASPEMIX
SLURRY CUT-OFF

ASPEMIX:

Slurry Cut-off Wall, Vibrating-Beam Injection Method (Base Bid):

A. General:

- a.1 Aspemix slurry beam wall shall be constructed to the lines, grades, and cross sections as indicated on the design drawings. The wall shall be essentially vertical. Approved Aspemix® slurry mixture shall be pumped under controlled pressures through the underlying stratas and terminated at the top of the firm rock or "keyed" into other impervious material.
- a.2 Contractor shall submit evidence that he is competent to construct Aspemix® (a cold asphalt emulsion) slurry wall. This evidence will insure that contractor or his subcontractor shall have sufficient competent personnel to carry out the operations specified, and such personnel (as approved by Purchaser prior to award of Contract) will have previous experience in this type of construction. In particular, a construction and Aspemix® slurry specialist(s) shall be used to supervise the construction, slurry preparation, and quality control.

B. Driving and Extraction of Vibrating Beams:

b.1 Equipment:

- b1.1 Construct the Aspemix® slurry wall using suitable equipment for attaining required depth and continuity of the wall.
- b1.2 Vibrating beam shall have a web depth of 31 to 33 inches and a flange width of 12 to 15 inches. Beam shall be controlled by guide leads assuring plumbness in vertical plane within the limits of $\pm 1\%$ and each insertion shall overlap previous insertion by a minimum of 4" of the beam depth unless otherwise requested by Purchaser.
- b1.3 Beam shall be driven by vibratory driver and extracted at a rate controlled by a pumping pressure between 75 and 100 psig or at a pressure at which the adjoining trench slurry level is maintained at the ground surface during the beam insertion. Both pumping pressure and maximum rate of extraction shall be to the satisfaction of the Consulting Engineers. Final beam depth shall be checked by noting resistance to pumping indicating penetration of vibrating beam onto impervious zone.

b.2 Installation of Aspemix® Slurry Wall:

All Types of Slurry Walls - Water Barriers - Pond Liners

7100 Industrial Avenue • Gary, Indiana 46406 • (219) 949-2084 • (312) 721-9797

ASPEMIX (con't)

- b2.1 Contractor shall construct a suitable working area on top of dike to provide free mobility of equipment and at all times maintain stability and appearance of dike embankment during the construction of slurry wall. Any damage to the dike shall be immediately repaired to the satisfaction of Purchaser.
- b2.2 Driving and extraction of vibratory beam and introduction of the Aspemix@ slurry into the pervious soil shall begin after construction of dike. Crane with vibrated beam insertion equipment shall travel along the toe of the slope or on top of dike.
- b2.3 Upon completion, the Aspemix@ slurry wall shall have a minimum thickness of 3 inches, have no gaps and be continuous.

C. Slurry:

- c.1 Aspemix@ slurry shall consist of a stable cold asphalt emulsion anionic or cationic base, sand, water, and cement as follows:
 - c1.1 Asphalt Emulsion-cationic: shall meet the requirements and typical applications for cationic emulsified asphalt as per ASTM D2397. A written certificate shall be supplied by the cold asphalt emulsion supplier, specifying the quality of the load shipment.
 - c1.2 Asphalt Emulsion-anionic: Asphalt emulsion anionic shall meet the requirements and typical applications for the anionic emulsified asphalt as per ASTM D977. A written certificate shall be supplied by the supplier specifying the quality of the cold asphalt emulsion load shipment.
 - c1.3 Sand: Sand shall be clean and free of the organic materials and 100% passing 4 mesh.
 - c1.4 Cement: Portland Cement ASTM C150 Type 1. A written certificate specifying cement quality shall be given by cement supplier for each tank load shipment of cement received.
- c.2 Aspemix@ Slurry Requirements:
 - c2.1 At time of injection Aspemix@ slurry for walls shall meet the following requirements:
 - c2.1.1 Viscosity of Aspemix@ (cold asphalt emulsion slurry) shall be pumpable in the form of heavy liquid passing through the nozzles on the bottom of the injection beam.
 - c2.1.2 Minimum Aspemix@ slurry mixture temperature shall be 45°F.
 - c2.1.3 Upon completion of mixing the Aspemix@ slurry, the specific gravity shall not be less than 1.45 gm per cubic centimeter, nor greater than 1.8 gm per cubic centimeter or as approved by the Consulting Engineers.

ASPEMIX (con't)

- c2.1.4 Contractor shall be responsible for meeting all above requirements. Completed wall sections failing to meet these requirements shall be repaired immediately to the satisfaction of the Purchaser.
- c.3 Contractor shall submit a written statement as to the use of any additional mixtures, such as retarders, and its effect on the Aspemix@ slurry mixture prior to its use.
- c.4 Aspemix@ slurry shall be pumped from a centrally located mixing plant directly into the injection beam. Aspemix@ slurry shall be injected under pressure at the same time as the beam begins to penetrate downward.
- c.5 Mixing Plant:
 - c5.1 All Aspemix@ slurry for vibrating beam injection shall be mixed in an approved suitable continuous mixing plant. Mixing of asphalt emulsion, sand, water and cement shall continue until sand and cement particles are fully coated by asphalt emulsion and slurry is homogenous.
 - c5.2 Slurry plant shall include necessary equipment including a mixer capable of producing a uniform suspension of sand and cement in a cold asphalt emulsion, sumps, pumps, valves, hoses, supply lines, small tools, and all other equipment, as may be required, to adequately prepare an Aspemix@ slurry. Contractor shall submit a sketch describing mixing plant operation including batch monitoring gauges, prior to its use.

D. Water:

- d.1 Water shall be clean, fresh, and free from oil, acid, alkali, organic matter, or other deleterious substances. Contractor shall supply all the required water. Contractor is responsible for changes in the water chemistry and its effect on cationic and/or anionic asphalt emulsion.

E. Treatment of Top of the Aspemix@ Slurry Wall:

- e.1 Whenever temperatures are anticipated to be 32⁰F, or less, suitable cover, as approved by Purchaser, shall be placed over the Aspemix@ slurry wall to prevent freezing.
- e.2 After the approved period to time, the initial layer over slurry wall shall not be more than 12 inches thick and compacted with pneumatic or static cylindrical rollers or any approved equipment, provided such equipment does not have any projection or tamping feet which will penetrate or damage aspemix slurry wall.

F. Clean-Up:

- f.1 After completion of Aspemix@ slurry wall, all excess slurry shall be disposed of as per instructions of Purchaser.

ASPEMIX (con't)

G. Quality Control Testing:

- g.1 The quality of the Aspemix® slurry mixture at time of injection into pervious soil shall be verified by tests made by Purchaser at least twice daily.
- g.2 Contractor shall fully cooperate with Purchaser in conducting all tests. The results of tests carried out shall be final and conclusive in determining compliance with the specifications.

H. Cationic and/or Anionic Aspemix® Slurry

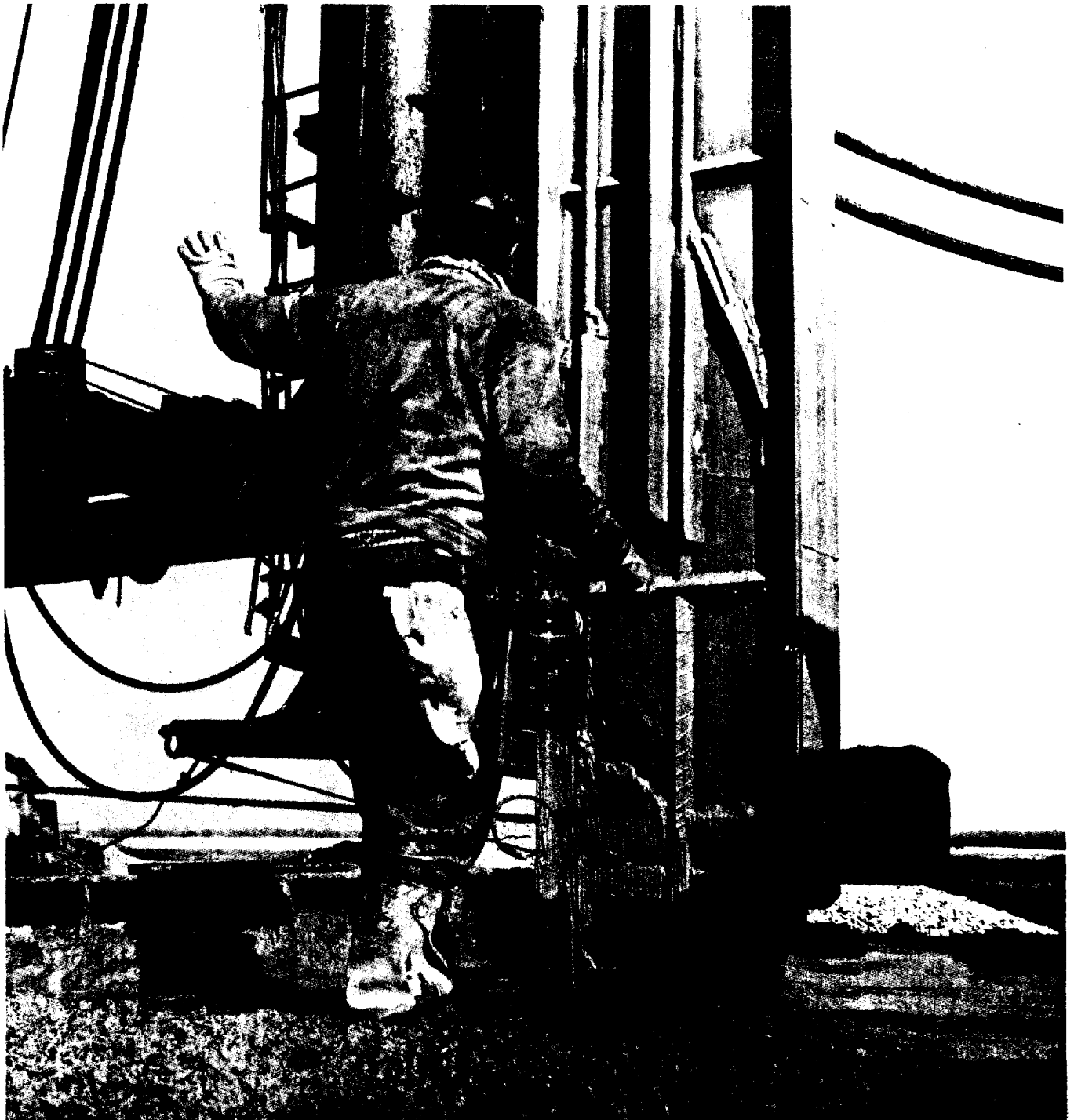
- h.1 Typical slurry composition shall be within the following range of:

Asphalt emulsion	36-40%
Sand	50-55%
Water	8-12%
Cement	2-6%

CONSTRUCTION DIGEST.

January 8, 1976

1976 Forecast — p. 20



Slurry injection seals power plant dikes

■ More than a million sq. ft. of 3.5-in.-thick impermeable slurry membrane has been installed at a northern Indiana power plant, the first slurry installation of its kind in the United States.

Although slurry walls have been placed at numerous construction projects in the U.S., this is the first time a vibrating beam injection method has been used in this country.

The membrane was placed by Thatcher Engineering Co. of Gary, Ind., and Phillip Holtzmann of Frankfort, Germany, as a joint venture under subcontract to Calumet Trucking Co., Gary, Ind. A new company, Slurry Systems Specialists, Inc., has been formed between Calumet Trucking Co. and Thatcher Engineering. The new company is capable of handling all types of water impervious barriers and consulting work.

The beam-injected slurry wall is designed to prohibit liquids from seeping through dikes surrounding retention basins at the Northern Indiana Public Service Co. (NIPSCO) generating plant under construction at Wheatfield, Ind.

The dikes were first built up to approximately 17 ft. high after two to three ft. of unsuitable materials were removed and backfilled with sand. Calumet Trucking Co., the prime earthmoving contractor, built the dikes on a 3:1 slope, 100 ft. wide at the bottom and 20 ft. across on top.

All together, some 25,000 lin. ft. of dikes surround three lagoons, the smallest of which has a circumference of 7800 ft., according to Hal Page, Calumet's project superintendent.

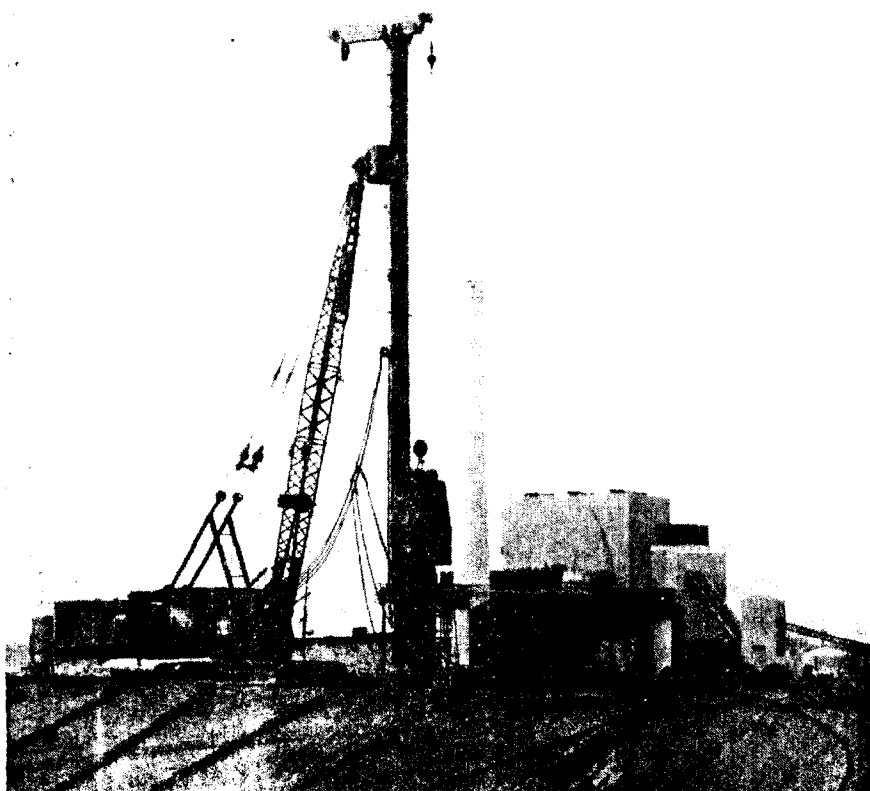
When the dikes reached the 17 ft. level, two Manitowoc 3900 cranes, each hoisting tandem PTC 475 vi-



FOREMAN directs crane operator during positioning of injection beam that places 3.5-in.-thick slurry wall as it is driven into dike.

Slurry injection makes its U.S. debut on Indiana project

INJECTION BEAM is vibrated into dike by PTC 475 vibratory extractor on fixed lead handled by a Manitowoc 3900 crane.

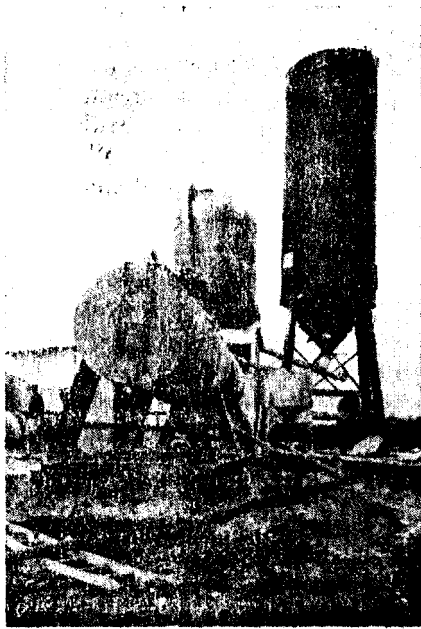


bratory extractors and a specially designed injection beam, straddled shallow trenches on top of the dikes.

"The slurry material was vibrated through the dike and into impervious soils under the dike," said Frank Zlamal, technical consultant for the newly formed Slurry Specialists firm. "The beams are up to 75 ft. long, are 33 in. deep and have a 14-in. guide flange. Welded to this beam are pipes through which the slurry is pumped to three hardened alloy nozzles at the bottom of the beams.

"As the beam, which is on a fixed lead, is vibrated down through the dike and to the impervious soils, slurry is released through the nozzles, acting as a lubricant and at the same time filling voids," Zlamal said.

When the beam reaches the desired depth, it is extracted slowly, "... no more than 10 ft. per minute. When we get to the top, the extracted beam is repositioned 29 in. ahead and in line with the previous insertion," Zlamal added. "This leaves a



SLURRY is mixed in one of two high-volume production units (above) then pumped up to 2200 ft. through four in. PVC hoses to injection unit (below) housed in trailer towed behind crane. High-pressure pump in the injection unit pushes the slurry through injection beam nozzles.

four in. overlap to insure a continuous wall with no gaps."

On the average it takes 3.5 minutes to insert the beam and approximately the same amount of time for the extraction process for each section of wall.

"The soils we are going through are primarily sand and in some cases a layer of gravel and hard-pan clay above the shale," according to David Bihlman, a partner in Calumet Trucking and officer of SSS.

"In almost every drilling instance there is an impervious clay layer over the shale, and the beam's nozzles just touch the shale at the bottom of its thrust. On the average we are installing the slurry wall about 45 ft. deep, with variations up to 12 ft.," Page explained.

The carefully mixed, carefully controlled slurry was mixed in three m³ batches in mixing plants that were generally located in the center of the lagoon areas. "We use a 'Western Bentonite,' which is of higher quality than European mixes," Zlamal said. "This is bentonite in its natural state with no additives."

Mixing of the slurry was important, because it was pumped a maximum of 2200 ft. from the batch plants to a trailer-mounted reservoir behind the crane. A Moyno pump on the enclosed trailer high-pressures the slurry into the injection beam nozzles.

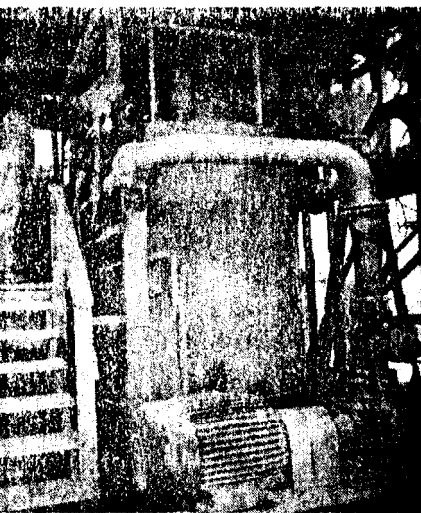
Fred Schmednecht, vice president of Thatcher Engineering and an officer in SSS, noted that there were very high standards required by NIPSCO specifications. "There is probably more control on this slurry than on any other slurry job in the country, as far as testing and installation goes.

"Each mix is very carefully calibrated and documented, and weights and pressures are recorded. The mix has to be exact, or gelation could set in between the mixer and the injection rig. Once the slurry is injected in the dikes, it begins to gel immediately," the engineer said.

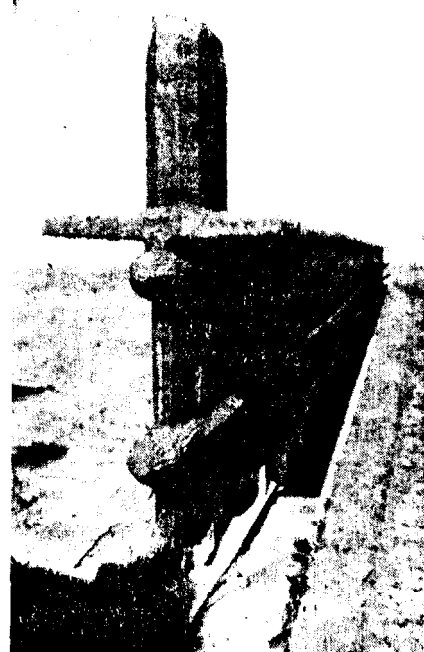
When Calumet Trucking and Thatcher first suggested the slurry wall injection method to NIPSCO, a test cell was constructed and monitored by Sargeant & Lundy Co., Chicago, the consulting engineers for NIPSCO and design engineers for the project.



SUPERINTENDENT Hal Page checks slurry wall test cell (above) built prior to start of project. Guide flange, alloy nozzles and slurry feed lines are welded to injection beam (below).



INSIDE of dike wall is bladed to 3:1 slope by a small International dozer working sand fill.



Zlamal said that after a recent inspection, "... we found that the test section checked out considerably better than we had anticipated in our bid specifications."

"The quality control is control which you can see," Schmednecht said, "and it is much better as far as we are concerned for producing a completely impervious barrier. Economically this is less expensive

to place than the open-trench slurry system."

Zlamal, Schmednecht, Page and Bihlman studied the system at several European jobsites and brought the idea back to Indiana with them. "We are in effect pioneering this system in the United States," Zlamal said, "and we have been constantly making refinements in the configuration of the beams and nozzles and

in the batching plants and procedures."

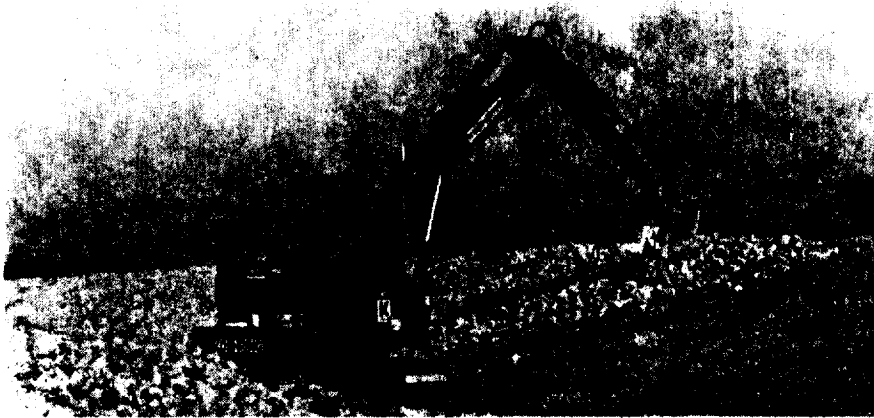
"We had to work and experiment with our construction procedures to establish the exact system with which to handle this process. We used some 6000 tons of bentonite cement during placement of the 1.2 million sq. ft. of wall," Schmednecht added.

Calumet Trucking Co. partner David Bihlman said the initial earth-moving contract includes approximately one million cu. yds. of excavation and embankment, plus about 200,000 tons of stone rip-rap placement inside the dikes.

"We've been working on this project for about 3½ years, starting with initial clearing and stake-out work," Bihlman said. "We have been using International scrapers to handle the sand for the dikes."

Bihlman added that much of the sand being used in the dikes is coming from sand dunes on the site, and that any borrow areas have to be covered with topsoil and seeded.

STONE rip-rap is placed on dike by Koehring 1066 backhoe.



ALL TYPES OF SLURRY TRENCHES & WATER BARRIERS



Slurry Systems Specialists, Inc.

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219-949-0561**

**FRED SCHMEDNECHT
PRESIDENT**

Vibrating beam injects thin cutoff walls

A 10-year-old European method of placing slurry walls, imported here only last year, has chopped costs by one-third for a contractor building underground pollution barriers for a Midwestern powerplant.

"What we've done is to take the European method and make a lot of improvements on it," says Fred C. Schmednecht, vice president of Thatcher Engineering Co. (TEC) Waukegan, Ill. Officials from TEC and Calumet Trucking Co., Gary, Ind., visited several construction projects in France, Germany and Austria in 1974, to learn about the method.

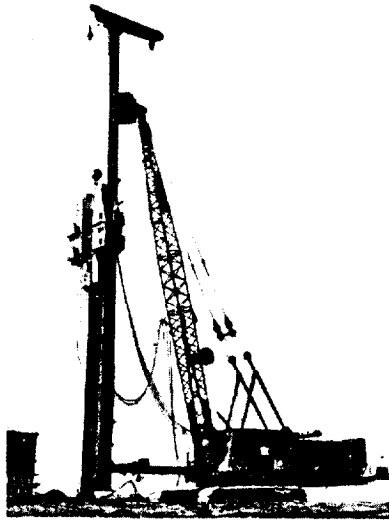
Calumet has the prime \$8-million contract for earthmoving and slurry wall construction around three wastewater treatment ponds at the Rollin Schafer coal-fired powerplant near Wheatfield, Ind. The plant is owned by Northern Indiana Public Service Co.

A joint venture of TEC and Phillip Holzmann AG, Frankfurt, will wrap up construction this month on 1.2 million sq ft of the 4-in.-thick wall. Nearly 5 miles of it, reaching an average of 45 ft deep, surround the three ponds. Because the entire site is underlain by a shale formation, the contractor simply extended the wall through the ponds' 20-ft dikes down to the shale.

"When we saw this slurry wall method working within 10 ft of the Danube River in Austria, we knew it could work here," says David R. Bihlman, president of Calumet Trucking. The procedure is called the vibrating beam injection method. Bentonite-cement slurry flows through two pipes to three jets at the bottom of a vertical steel I-beam (see photo). As a 17-ton French-made vibrating hammer sinks the beam into the sandy soil, slurry is injected to lubricate the beam's downward path.

From the bottom up. The wall is built as the beam is pulled back up, because more slurry is injected during withdrawal, as it flows under the void left by the beam on the way up. Upon completion of one 40-in.-long section, the crane backs up and repeats the cycle. In 45-ft depths, the machine can put down about 90 ft of wall in a 24-hour day.

What makes the method new in this country are the injection method and the bentonite and cement mixture, says Schmednecht. He says TEC and Holzmann "spent all last winter experi-



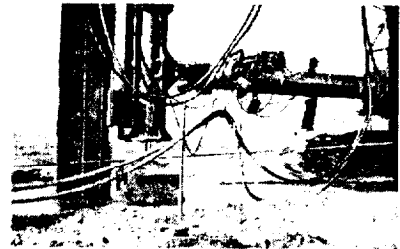
Vibrating hammer sinks beam.

menting with 300 to 400 different mixtures, getting it to come out right." Besides bentonite and cement, soda ash and a phosphate additive go into each batch. The phosphate helps the bentonite retain its moisture as it hardens and keeps the clay-cement mixture from cracking. Schmednecht says the final product, a firm gel that is slick to the touch, has a design life of 40 years, mainly due to the permanence of the cement.

Bihlman and Schmednecht say that despite some equipment problems, if the soil is soft enough for the beam to penetrate, the vibrating beam method is superior to conventional slurry trench excavation methods. The Indiana job was bid at \$3 per sq ft, compared to \$4 or \$5 per sq ft for conventional methods using a clamshell or backhoe to excavate. Because the vibrating beam allows the contractor to inject a very thin membrane, the old 30-in.-wide trench, often slow to excavate with a clamshell, is not needed.

Long injection beam. The key to the process is the 50-ft-long injection beam, which was designed by TEC and Holzmann. The beam itself is a 33-in., wide-flange section that weighs 190 lb per ft. Two pipes run along its length and connect to three nozzles at the bottom that are evenly spaced across the 33-in. width. The beam's web carves out the spine of the wall, and the flanges stabilize it during the 900 to 1,200 vibrations per minute delivered to its top.

To insure continuity in the wall, each time the crane backs up and the beam



Slurry lubricates beam going down.



Beam fin forms tongue-and-groove joint.



Cutoff is irregular but tight.

is lowered, it overlaps the last section by 18 in., the width of a 14-in. fin, plus 4 in. of beam. The steel fin, welded to the flange and pointing away from the crane travel (see photo) cuts a groove in the last-placed section of wall, allowing fresh liquid to be injected. This forms a keyway at the juncture.

The crane leads that support the vibrator are sections of 20-in.-dia steel pipe. TEC-Holzmann uses 90 ft of lead, and Schmednecht says the rig could be set up to go 70 ft deep.

Two of the rigs have worked six-day weeks, 24 hours a day since August. Rate of progress is up to about 4,200 sq ft of wall per machine per 24-hour shift. Schmednecht figures the rigs cost \$500 per hour to operate, and says the price tag for one entire outfit is about \$600,000.

Officials with TEC and Calumet Trucking foresee enough new possibilities for the slurry wall technique that they have formed a new company, Slurry Systems Specialists, Inc., East Chicago, Ind.

■ Construction of the Harry S. Truman Dam, 1.5 mi. upstream from Warsaw, Mo., on the Osage River, is in its 13th year.

A Stage 1 contract was awarded in August 1965 for a small amount of clearing and grubbing and core trench excavation on the west bank of the river, and for some embankment fill and grouting.

Additional embankment and excavation was started in 1967 in Stage 2, and in November 1970, a major contract was awarded for Stage 3 construction of the remainder of the embankment fill, except for the river closure section which is now being done by S. J. Groves & Sons, Inc.

At the same time, the powerhouse substructure and a major portion of the spillway were started, which required some 297,000 cu. yds. of concrete.

Later, a fourth contract was let for construction of a dike in a "saddle" along US 65 at Sterrett Creek.

The 5000-ft.-long rolled earthfill dam, with a 964-ft.-long concrete spillway which includes four 40-ft.-wide tainter gates, will have required some 8 million

cu. yds. of embankment when it is completed.

Near the right abutment, below the face of the dam, a powerhouse structure will contain six hydraulic reversible pump turbines and generators to produce electrical power during peak periods of power demand.

A joint-venture of Guy F. Atkinson and Wismer & Becker, both of California, has the Stage 5 contract to install the generators and turbines.

Behind the dam, a flood control reservoir will cover more than 209,000 acres, with 3,999,300 acre-ft. of storage capacity and 958 mi. of shoreline.

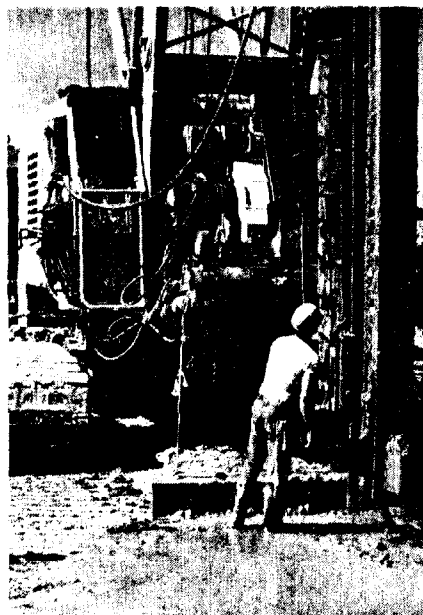
Other construction activities surrounding the dam and reservoir project include highway relocation, 12 mi. of railroad relocation, 240 mi. of utility lines, relocation of 50 cemeteries and construction of Missouri's longest bridge, a 5128-ft.-long structure over the Osage near Warsaw.

When the project was modified to include electrical power potential in 1962, estimated cost was set at \$150 million. Now, according to Corps of Engineers officials, total cost exceeds \$440 million.

Construction enters 13th year

Truman Dam embankment closure marks end of \$440 million project

■ The sixth and final stage of construction at the Harry S. Truman



SLURRY WALL is installed on downstream closure dike to stop water seeping into core trench excavation.

Dam near Warsaw, Mo., is moving into high gear as the contractor prepares the way to begin closure of the main embankment.

S. J. Groves & Sons, Inc., Springfield, Ill., has already completed a channel change which redirects the Osage River from its original stream bed through the dam's spillway, placing a pair of rock dikes in the riverbed to halt flow there.

Groves has also placed a dewatering system and begun pumping down water trapped between the two dikes, installed slurry cut-off walls the length of the dikes and started excavating muck from the riverbottom.

"We have about 3.5 million cu. yds. of earth and rock excavation and embankment to place to complete the closure between the embankment which is in place and the rock bluff where the left abutment ties in," said Charles Myers, project manager for Groves.

That embankment will extend

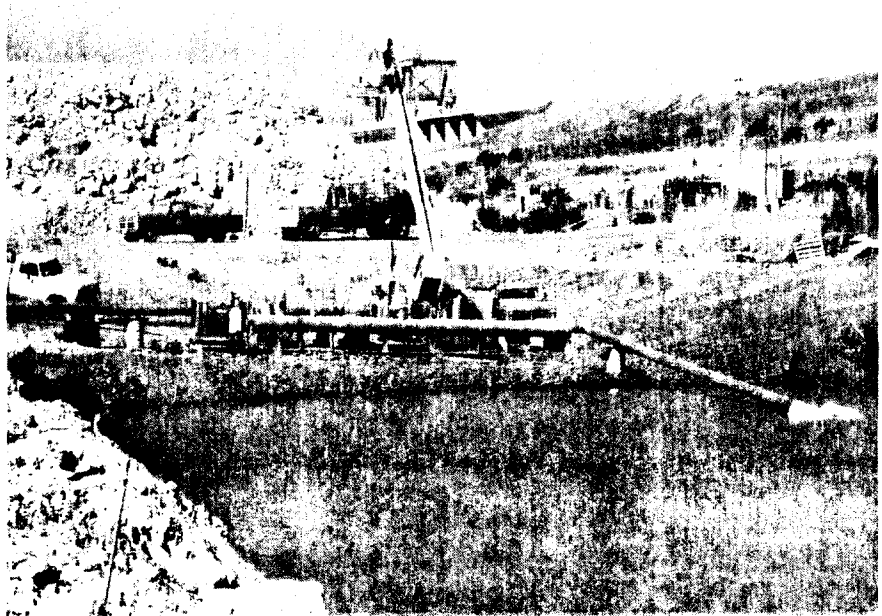
1400 ft. in length and will be 1300 ft. wide at its base, decreasing to 35



SLURRY SYSTEMS SUPERINTENDENT Bob Budgin and operator Dick Harris check alignment of slurry wall.



GENERAL SUPERINTENDENT Gerald Brister and project manager Charles Myers check dewatering.



DEWATERING of the embankment site is speeded along by Groves employees setting up one of the Crisafulli pumps being used to pull ground water from the deep well system.

ft. on top as it is placed on 4:1, 10:1 and 3:1 slopes on front and back sides. This will include a variety of selected materials, placed in triangular-shaped zones.

Groves moved onto the project in February of this year, using a Caterpillar earthmoving fleet to build up a primary haul road with 350,000 cu. yds. of materials, and to stockpile 300,000 yds. of impervious material.

"We had to get this material out of the bottom lands before they were flooded and place it in a stockpile above elevation 703 to have it available as we bring the dam embankment up," Myers noted.

The project manger added that all of the impervious materials needed have been excavated and stockpiled and remainder of the borrow materials lies between small hills behind the right abutment of the dam.

To make the channel change in mid-July, Groves first had to place 100,000 yds. of rock in the two dikes, backing those with another 100,000 yds. of river fill clay materials, then excavate 190,000 yds. of material from a plug in the new channel.

"First we had to go in and clean the loose rock from the bedrock surface in the new channel, using high pressure water and a vacuum truck," Myers said. "Then we had

to take the dike out on an around-the-clock operation with two of our draglines. We started at the center

and worked out to each end to remove the dike, which was about
continued



INJECTION RIG for slurry wall erection is seen from nearby Kaysinger Bluff at downstream closure dike (above). Below, Groves' Northwest dragline dumps a load of muck into a waiting Euclid bottom-dump while an American drops its bucket into water trapped between the closure dikes.



90% underwater."

Groves was required to equalize water pressure on both sides of the plug, so they elected to set up a 26-in. siphon over the dike, priming it with an 8-in. vacuum pump, and siphoned water into the new channel.

Closure was delayed a couple of weeks when 10 in. of rain in two weeks flooded the area and halted excavation. When the flood receded, Groves readied materials for final closure, the U.S. Corps of Engineers stopped flow through upstream dams, and the dike materials were pushed into place.

"For our dewatering situation between the two closure dikes we installed 14 deepwell pumps along the existing embankment, then ran slurry walls from the left abutment across the up- and downstream dikes and tied them into the embankment," Myers said.

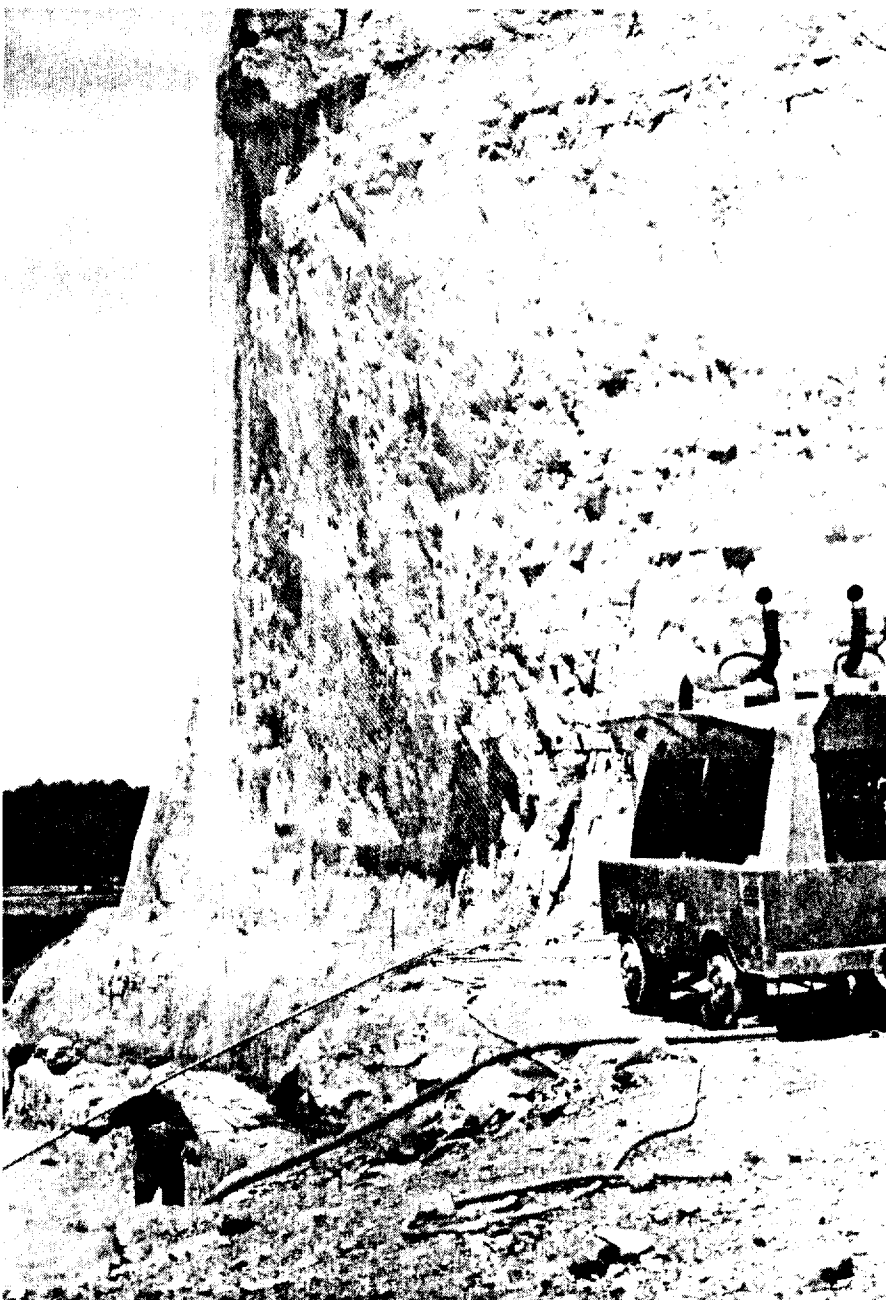
The slurry walls were installed by Slurry Systems Specialists, Gary, Ind., under a Groves subcontract. Bob Budgin was superintendent for Slurry Systems during vibratory placement of approximately 1900 lin. ft. of wall averaging 45-ft. depths.

Groves' dewatering system includes 12- and 16-in. Crisafulli pumps, a pair of 10-in. and an 8-in. vacuum pump to handle the initial pump-down of the water within the cutoff dikes.

"Then we will get a better picture of what the muck removal operation will look like," Myers said. "The bid item is for 60,000 yds. of muck removal, plus about 130,000 yds. of material in an existing protective dike which has to come out. After that is completed we can get down and open up the core trench

continued

CORPS OF ENGINEERS visitor center (top photo) overlooks dam site and rock excavation for left abutment tie-in. At right, draped fence fabric net covers rock wall above drilling and shooting team as a precaution against falling rock.



and start building the closure embankment."

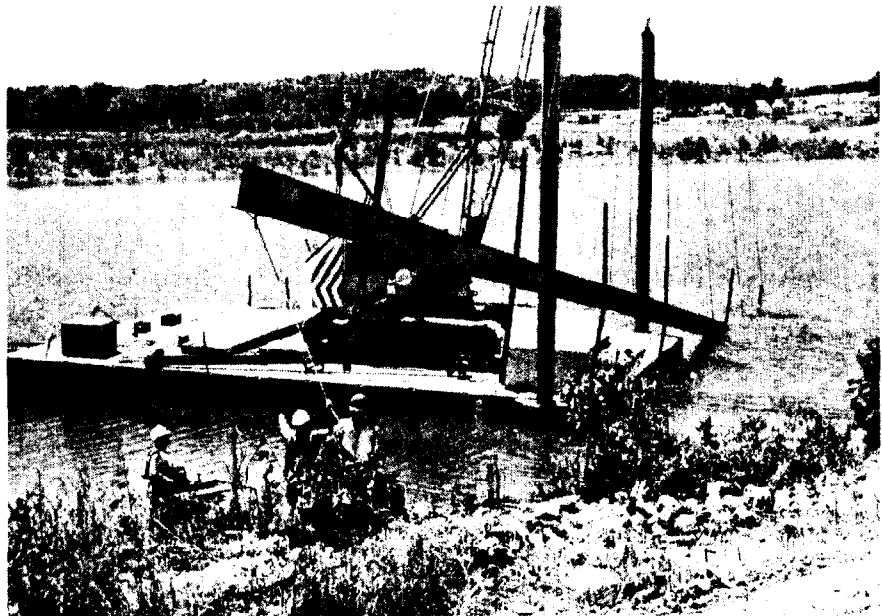
Before and during pump-down, the project manager had a pair of draglines, an American 7250 and a Northwest 95, excavating muck into Euclid bottom-dumps which then carried it to the upstream side of the closure dike.

"Under the muck there is about 10 ft. of river gravel, then bedrock," Myers continued. "We will clean out a 43-ft.-wide core trench to bedrock down the centerline, leaving the rest of the gravel as base for the embankment.

"We will clean all the muck off, go in and compact the gravel, de-water again then start the fill from there. A grout curtain will go all the way through the core trench starting at the end of the existing embankment and up the left abutment, through the rock cut and back to a roadway about 100 ft. behind the bluff."

While other preliminary work has been on-going, Groves has been drilling and shooting benches in the rock bluff. "We have to tie into the rock with the embankment, so we had to shoot out 1:1 benches to give us our tie-in points," Myers said.

To protect the men working be-



TRANSDUCER BEAMS, like the pair below, are to be placed by Groves on each side of the new river channel. Cables stretched below them will measure the flow of the current.

low the top of the bluff adjacent to the drilling and shooting area, a draped net of wire fence material was hung over the face of the rock to keep dislodged rocks from bounding into the work area.

Only about 8000 yds. of rock had to be shot from the bluff, Myers said. "There were a lot of holes to

be drilled but that was because of the pre-splitting we had to do." Gardner-Denver Air-Tracs and compressor units were used for that operation.

Continental Drilling Co., Seattle, Wash., will drill and grout the curtain wall, which may go as deep as 130 ft. into rock, according to Richard Griffith, resident engineer, U.S. Corps of Engineers, Kansas City District.

"Rock which underlies the dam is a good dolomitic limestone, with very few solution cavities," he said. "The curtain wall will be a four-row wall as opposed to the single-wall curtain under the concreted portion of the dam."

While the grouting is being done, Groves will put its earthmoving crew back to work building up a cofferdam to elevation 708. This has to be completed prior to December 1 for protection from high water.

"Once the rest of the embankment reaches 708, the top of the cofferdam will come off and be utilized in the main dam fill," Myers said. "All of the material we have placed and will be placing in the river is permanent embankment."

continued



GARDNER-DENVER AIR-TRAC DRILL bores into a rock where a 1:1 bench is being cut for the earthfill dam's left abutment tie-in. About 8000 yds. of rock were shot from the bluff.

he emphasized.

Groves' Truman Dam earthmoving fleet includes 10 Cat 651 and three 627 scrapers, five Cat 773 50-ton end dumps and a 992 endloader, five Euclid bottom-dumps, the American 7250 dragline and a 5299 crane, and the Northwest 95 dragline.

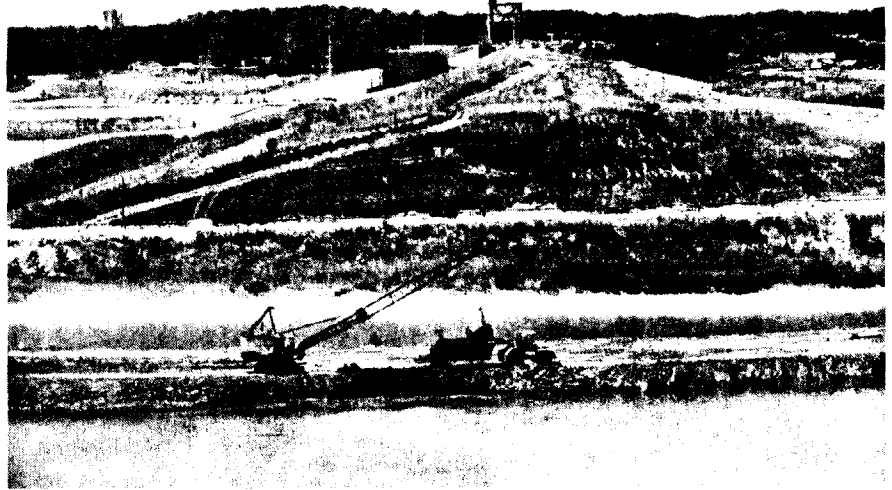
Speaking of the dragline operation, Myers said he anticipated being able to supplement the muck removal operation by using the endloader and end-dumps, working from a ledge of the bluff which goes under the muck.

"Once we get the muck removed, and if other conditions allow, we will run a double shift on embankment work," he said.

"Our scheduled completion date is in late 1979, but we are hoping to have it completed by May or June 1979. That depends on what the river does to us in the meantime."

One of the last items Groves will perform is completion of the con-

LOAD OF MUCK is placed on the upstream side of the closure dike by a Euc bottom-dump while a Cat dozer spreads material.



MUCK REMOVAL operation is in foreground of view from the bluff looking down the axis of the dam. Embankment behind the crane was placed under previous contracts.

crete sills under the dam's four tainter gates in the spillway section.

"We can't start that until July 8 of next year," Myers said. "We will have to set up an on-site batch plant to mix the 8000 yds. of concrete because the Corps requires it

for testing purposes."

Working with Myers on the \$13.1 million project are general superintendents Gerald Brister and Larry Burford. Bill Pew is office engineer and is responsible for quality control.



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fuel storage for aircraft, vehicles and heating fuel. The air station maintains 17 buildings on base with over 92,000 square feet and eight buildings at Camp Geiger with 156,000 square feet of covered storage. In addition to covered storage, the station has approximately 68,000 square yards of available open storage. As a part of its mission, the station provides the bulk of the storage space for the Marine air groups based at the air station. This includes space for aircraft parts and equipment, ready-issue material storage, air group development supplies, and open storage areas for heavy machinery and equipment, as shown in Tables 29 and 30. Most of the existing storage/supply areas are located on the south side of Curtis Road. The conditions of the existing structures are basically good except for some maintenance and repair work. The only other problem is the amount of space and the location. The location of some facilities at Camp Geiger creates transportation and time loss problems for the air groups since they often have daily needs of supplies and equipment from their warehouses.

		<u>CAMP GEIGER</u>	
		<u>WAREHOUSE SPACE</u>	
<u>T29</u>			
<u>Cat Code</u>	<u>Description</u>	<u>Existing</u>	<u>Required</u>
44110	Gen. W'house Space	156,500 sq. ft.	
45110	Open Storage Area	61,000 sq. yd.	

		<u>MARINE CORPS AIR STATION</u>	
		<u>WAREHOUSE SPACE</u>	
<u>T30</u>			
<u>Cat Code</u>	<u>Description</u>	<u>Existing Sq. Ft.</u>	<u>Required</u>
44110	General Warehouse	86,600	116,800
44130	Flammable Storage	1,900	
44135	General Storage Shed	3,800	10,900
	TOTAL	<u>92,300</u>	<u>127,700</u>



Ordnance Storage/Handling: The air station has no long-term ordnance storage or handling ability. Ordnance is currently procured from storage at MCB magazine area, requiring extensive transportation and time on a daily basis. The only facility the air station has for arms is one ready service locker for small arms, ammunition and aircraft ejection seat cartridges. The air station already has under development a project for an ordnance storage/handling facility, with a total of 29,000 square feet. The facility is planned to be located in the southwest quadrant of the station and will provide a storage and assembly area for 2.75" rockets, high explosive bombs up to 1,000 pounds, napalm tanks, and components for pyrotechnics such as flares, smoke grenades chemical and munitions, and small arms ammunitions.

Fuel Storage: Fuel used for aircraft operations, motor transport, motorized equipment, heating and the production of steam are stored in different parts of the base; however, the main storage tank farm is located on the corner of White Street and Campbell next to the Seaboard Coast Line railroad tracks. The tank farm is served by tank trucks and railroad tank cars. The condition of existing facilities in this complex is good, as the oldest facility in this complex was built in 1960. This storage yard provides motorized vehicle fuel. Storage for aircraft ready fuel, located at the main tank farm, consists of eight storage tanks varying in capacity from 20,000 to 100,000 gallons. Other aircraft fuel storage is located in aircraft parking areas and is used for direct aircraft fueling. The storage is in two underground tanks with a total capacity of 40,000 gallons.

Vehicle ready fuel storage, located at the tank farm, consists of one 10,000-gallon tank; the other vehicle storage area is located between the two runways in the southern part of the base. It consists of two tanks with a total capacity of 5,000 gallons and is used by heavy equipment and trucks.

Heat fuel storage is located at the main tank farm in one tank with a capacity of 10,000 gallons.

T25

MARINE CORPS AIR STATION
ANALYSIS OF NOISE CONTOURS

	<u>Zone 2</u>	<u>Zone 3</u>
On Base	2.1 sq mi	1.4 sq mi
Water	1.5 sq mi	less than 0.1 sq mi
Off Base	2.0 sq mi	less than 0.1 sq mi

(Less than 0.2 square miles off government property)

These contours are controlled for the most part by H-53 operations. Specifically, the Zone 3 contour is controlled by H-53 takeoffs and landings, H-53 GCA approaches, OV-10 runups, and UH-1 and AH-1 taxi operations. These contour areas represent a relatively small threat of complaint generation. This is especially true when it is noted that less than two-tenths of a square mile of the Zone 2 contour area falls outside government-owned land.

3 ECOLOGICAL INFLUENCES

(a) Land Formations

The West Base area is essentially a flat highland with occasional fingers of eroded land, channelized and drained by tributaries flowing into New River creating wet, low, marshy pockets of land. Average elevations range from ten to twenty-five feet.

(b) Ecological Constraints

(1) Flood Plain

An important natural constraint which must be considered in planning the West Base area is the flood plain. The 100-year flood plain has been determined by the U. S. Army Corps of Engineers to be at the eight-foot

elevation level. In the West Base area the eight-foot elevation occurs near the shore of the New River and along the edges of major streams which drain into the river, as shown in Plate 49. The major areas affected by the flood plain are on the air station. Enlisted men's family housing is located approximately halfway into the 100-year flood plain and, as a result, any future construction in the area should be avoided. The officer family housing area, while not located directly in the flood plain, is bounded by it on the east side. The last area with major intrusion of the flood plain is the south part of the air station, bounded by Southwest Creek. Any major development in this area would be very limited. However, since a large portion of the southern part of the air station is restricted by aircraft flight zones, the flood plain is not expected to cause any major problem.

(2) Drainage

The relief in the West Base area is nearly level to level, except for short steep slopes adjacent to either swamps or shoreline. Among these slopes are some escarpments. The best drained soils occur in bands adjacent to these slopes and have gentle slopes extending away for a few hundred feet to more level areas where soil drainage decreases. Soils in the center and west part of the area are somewhat poorly drained to very poorly drained and have nearly level to level slopes. Natural drainage-ways are poorly developed. Drainage-ways extending into the center and west part are deep near the outlets but become shallow a short distance from the outlets, until in the center and west part they are very shallow. Construction of buildings and runways in the West Base area has completely impeded the little natural drainage that existed in the more level elevation of the area. Soils in the built-up areas are either drained by a system of ditches or constructed drainage-ways, or they have no drainage, are flooded during rainstorms, and remain flooded for several days after each rainstorm.



P 49

WEST BASE
ENVIRONMENTAL CONSTRAINTS



- WATER
- FLOOD PLAIN
- 5% to 10% SLOPE
- OVER 10% SLOPE

(3) Soils

Plate 50 illustrates substantial areas of soils, ranging from moderately poor to poor for building. However, an equivalent amount of land consists of good soils as well. As a single ecological constraint, soils are not a critical concern; but combined with other factors, such as drainage and slopes, soil types become a significant consideration.

(4) Vegetation

About three-fourths of the land area in West Base is developed and used for runways, service areas, barracks, family housing, and recreation. Runways and aircraft parking areas are surfaced. Land area adjacent to them is sunny, consisting of forest, vegetated waterways and lawns. Land area in barracks and family housing is about 30 percent sunny lawns and 45 percent shady lawns. Recreation land area is sunny. Outlying land areas are in woods, growing loblolly and pond pine, some white and post oaks, maple, gum, dogwood and undergrowth of gallberry, reeds, and bay bushes.

4 MAN MADE INFLUENCES

(a) Existing Land Use

The utilization of lands within the West Base boundaries can be placed within eight functional categories. These are Operation, Training, Maintenance, Supply, Medical, Administration, Troop and Family Housing. Plate 51 illustrates the existing land use for the West Base Planning Zone.

(1) Marine Corps Air Station

The heaviest development occurs in the area bounded by Curtis Road to the north, White Street to the west, and the aircraft parking area to the south. The largest percentage of assigned personnel, both military and

civilian, is employed in this area. The basic land use in this area is supply/industrial; the next largest is community support facilities, such as exchanges, commissary, and others. Other uses in this area are public works, administration and troop housing.

There are two family housing areas located on the base that serve air station personnel. The officer housing area is located in the southwest quadrant of the base and is bounded by the New River on the east and the aircraft operations area (runway) on the west. Enlisted family housing is located on the north side of Curtis Road, bordered on the west by the Seaboard Coast Line right-of-way and on the east by Agar Street and the approach zone for Runway 18-30. Bachelor enlisted housing for air station personnel is scattered between Camp Geiger and the air station. Troop housing on the air station is divided between the barracks built in 1954, located in the congested area on Bancroft Street, and the new troop housing area to the west of the Seaboard Coast Line tracks, where two barracks have been built and two more are under construction.

By far the largest single land use is operations. This land use includes runways, taxiways, aircraft parking areas and flight zones. Of this area, flight zones control the bulk of the land and are located at each end of both runways. Since this is mainly a helicopter station, these zones have not created major problems concerning air zone safety violations. Also, only a very small portion of the zones fall outside station property. However, the operation area of the air station is an important factor in future land use development of the base. At the present time, the existing flight zones have restricted development on several parts of the base. The officer family area is bordered on one side by the flight zone and on the other three sides by natural constraints; as a result, any further expansion of family housing would have to occur on another part of the base. This same situation holds true for bachelor officer housing as well as enlisted family housing.

The supply and maintenance areas are located in the area immediately adjacent to the aircraft parking areas, their major use being aircraft

C COURTHOUSE BAY

1 LOCATION



Courthouse Bay is one of several satellite developments at the Camp Lejeune Complex which are isolated from Mainside, the center of urban concentration. Courthouse Bay is located to the south of Mainside on the eastern shore of the New River, approximately two miles from the Atlantic Ocean. The area is accessible via Marine's Road and North Carolina Route 172. The driving times and distances to the other developed areas of the Camp Lejeune Complex are shown in Table 12. The Courthouse Bay planning sector contains approximately 741 acres, of which 50% is presently developed.

T12 COURTHOUSE BAY DISTANCES DRIVING TIMES

	Miles	Minutes
Main Gate	13.2	21
Mainside	9.8	13
French Creek	9.0	12
Mile Hammock Bay	4.3	5
Onslow Beach	7.8	10
West Base (via Sneads Ferry Rd.)	25.0	30
Brewster Blvd.	12.8	21
Jacksonville	27.0	32

2 **MILITARY PLANNING DATA**

(a) Command Description

Courthouse Bay is the home of the Engineers School and the 2nd Amphibious Tractor Battalion (AMTRAC). The Engineers School is a part of the Marine Corps Base Combat Support School and includes instruction concerning utilities, heavy equipment, combat engineering and other forms of specialized instruction. The Courthouse Bay area is an adequate site for the school, although it does not provide any unique characteristics that could not be found at a number of other locations throughout the complex. The school requires a relatively remote site because of the environmentally destructive nature of the heavy equipment training. Also, the environmental conditions should provide sufficient drainage and topography so that the training activities will not be limited. The Engineers School was located at Courthouse Bay for two major reasons: (1) the school was inappropriate for Montford Point which is the location of the rest of the Marine Corps Base Schools, and (2) facilities were available at Courthouse Bay which would adequately serve the school's needs.

The AMTRAC Battalion of the Force Troops Command has a unique requirement to conduct training exercises both on land and in the water. To meet this requirement, the AMTRAC Battalion utilizes Courthouse Bay, Onslow Beach, the Atlantic Ocean, and the series of tracked vehicle trails.

The Courthouse Bay area was chosen for the AMTRAC Battalion because it was a protected natural harbor with direct water access to the ocean, as well as to other parts of the complex via the New River. Until recent years, the AMTRAC's operated routinely in both the bay and the New River itself. These waters were used for both initial driver training and large combat exercises which moved troops from the Courthouse Bay area, up and down the river, to various landing points on both the east and west banks. The existing transportation routes for the Camp Lejeune Complex, Plate 12, show numerous tracked vehicle trails which lead into

the New River on both sides of the complex. At this time, the river was considered to be as much a part of the Marine Corps training areas as the land, and was used in conjunction with it. However, at the time of original purchase, the Marine Corps did not acquire the rights to the river, which is still public property. The river serves as a way of access to the city of Jacksonville and is used by commercial fishermen and barges. (Actually, the New River is not a true "river", but an estuary which does not flow from any inland points, and ends at Jacksonville.) Because of increases in fishing operations and private boating, and more importantly, increased environmental restrictions on the military, the Marine Corps has been denied the use of the New River for routine training operations. For this reason, the Marines have increased training maneuvers in the Atlantic Ocean, which is still allowed. These events have reduced the desirability of Courthouse Bay as the site for AMTRAC headquarters, because of the distance to the Atlantic Ocean. A discussion of alternative sites will be addressed in Section IV-C-7, Proposed Development.

(b) Base Loading

At present, the estimated base loading for the two commands is as shown in Table 13.

<u>T13</u>	<u>COURTHOUSE BAY</u>		
	<u>EXISTING BASE LOADING</u>		
	<u>Officers</u>	<u>Enlisted</u>	<u>Civilians</u>
Engineering School (permanent)	18	24	
Engineering School (students)	12	484	1
AMTRAC Battalion	<u>46</u>	<u>1103</u>	<u>4</u>
TOTAL	76	1611	5

The overall development of the Camp Lejeune Complex is discussed in Section III. The plan includes proposals for the relocation of several major commands or fragments of commands. Among these are the proposal to relocate the Motor Transport School from Montford Point to Courthouse Bay. This move will consolidate all of the portions of the Combat Support School that deal with heavy vehicle and equipment training at Courthouse Bay. The remaining parts of the school, which are more classroom oriented, will be located at either Montford Point or Camp Geiger.

A second proposal involves the relocation of the AMTRAC Battalion to Mile Hammock Bay, as an alternative to Courthouse Bay. Because of this, two alternative proposed base loadings are shown in Table 14.

T14	COURTHOUSE BAY		
	<u>PROPOSED BASE LOADING</u>		
A. <u>Without AMTRAC Battalion</u>	<u>Officers</u>	<u>Enlisted</u>	<u>Civilians</u>
Engineers School (permanent)	18	204	
Engineers School (students)	12	484	
Motor Transport (permanent)	18	160*	
Motor Transport (students)	<u>27</u>	<u>431</u>	
TOTAL	75	1279	
B. <u>With AMTRAC Battalion</u>	<u>Officers</u>	<u>Enlisted</u>	<u>Civilians</u>
Total from above	75	1279	
AMTRAC Battalion	<u>46</u>	<u>1103</u>	
TOTAL	121	2382	

*estimate

3 ECOLOGICAL INFLUENCES

(a) Land Formations

Elevations in the Courthouse Bay area range from 0-40 feet above sea level, with most of the development occurring between 10-25 feet above sea level. The topography is low and relatively flat, lacking in any real outstanding land formations. Of particular interest is the configuration of the land along the water, consisting of several peninsular areas and promontories forming the bay, along with several small tributary inlets. Although much of this land is already developed, certain areas would be appropriate for pleasant recreation areas, and afford fine vistas for siting of certain facilities.

(b) Ecological Constraints

(1) Flood Plain

The combination of the 100-year flood plain at the ten-foot elevation, and the prevailing flat topography, produce a substantial area of land which is unavailable for future construction, as shown in Plate 38. It is interesting to note that almost all existing buildings have also been sited at elevations above the flood plain level. Only a few buildings, which have related amphibious uses, fall in the flood plain zone. Two large areas of land, lying below the ten-foot level, extend into the developed area from the bay to the north and the river to the south. These areas create a problem, when siting new facilities for Courthouse Bay, because they form a barrier between the present housing and working areas.

(2) Topography

Sloping lands which are classified as marginal for construction, ranging from 5% to 10%, largely lie adjacent to low wetlands, flood plain zones, and tributary drainage lines. In the presently developed areas, there are really few steep slopes and only in the areas to the north of Main



Service Road is building construction substantially affected or prohibited.

(3) Soils

Soils in the area range from moderate to very poor with the major portion of land being moderately poor in the developed areas. These areas consist of excessively drained sandy soils. Other soils include wetland, muck, and marsh-like soils along creek lines, tributaries and within the flood plain zone, as shown in Plate 39.

(4) Drainage

Drainage occurs naturally in irregular patterns with all water draining into the low, wetland areas, the flood plain zone and ultimately the bay and the river itself. The developed areas are well drained; however, the adjacent lands which lie below the ten-foot line are marshy and would be unsuitable for construction.

(5) Environmental Amenities

As already evidenced, Courthouse Bay contains several amenities, including interesting views, nearness to water, unusual land configurations and promontory overlooks. The siting of the 1942 facilities took advantage of these natural features, primarily because of lack of air conditioning; however, later construction during the 1950's and 1960's sited buildings without respect to any natural orientation.

4 MAN MADE INFLUENCES

(a) Existing Land Use

The historical development of Courthouse Bay dates back to before the original construction of the Marine Corps Base, when the area around the bay was used for a Coast Guard station. The present development, as

B FRENCH CREEK

1 LOCATION

The French Creek area, relocation site of the Fleet Marine Force Command, is located southeast of Mainside and is accessible via the Main Service Road. It is bounded on the north by Cogdels Creek and the Mainside area, on the south by French Creek and Cowhead Creek, on the west by the New River, and on the east by the Main Service Road and a large expanse of undeveloped land. French Creek is approximately 1.5 miles from the traffic circle at Holcomb Boulevard and approximately 6.5 miles to the main gate, requiring ten to fifteen minutes' travel time by car, as shown in Table 8.

T8 FRENCH CREEK
DISTANCES DRIVING TIMES

	<u>Miles</u>	<u>Minutes</u>
Mainside	1.6	4
C. Bay	9.0	12
M. H. Bay	10.0	13
Brewster Blvd.	7.3	15
West Base	16.4	33
Montford Point	12.6	25
Jacksonville	12.2	24
Main Gate	7.3	15
Onslow Beach	7.5	10

2 MILITARY PLANNING DATA

The mission of the Fleet Marine Force, which occupies French Creek, is to command, administer and train assigned units to provide combat service and technical support. This constitutes a major source of heavy combat support and specialized technical support assignable to a mobilized unit. The complete mission and history of the Force Troops Command is discussed in Section III-B. The baseloading for the Force Troops area as it presently exists is shown in Table 9.

<u>T9</u>	<u>FRENCH CREEK EXISTING BASE LOADING</u>
Officers	0
Enlisted Men	1,500*
	*existing barracks capacity

In comparison, the base loading for long-range planning, shown in Table 10, shows a considerable increase in the number of men to be billeted there.

<u>T10</u>	<u>FRENCH CREEK PROPOSED BASE LOADING</u>
Officers	460
Enlisted Men	7,121

This increase in the number of men will be phased into the French Creek area in stages as development progresses in the area.

3 ECOLOGICAL INFLUENCES

(a) Land Formations

The topography of the French Creek area is essentially an extension of Mainside: a relatively flat highland with occasional fingers of eroded

land, channelized and drained by tributaries of Cowhead, Cogdels and French Creeks, creating rather wet, low, marshy pockets of land. Average elevations range from 20 to 25 feet.

(b) Flood Plain

A significant natural constraint at French Creek is the one hundred year flood plain, which has been determined by the U.S. Army Corps of Engineers to be at the eight- to ten-foot elevation level. This restricts the amount of land permitted for future building development as indicated in Plate 32. Common within the flood plain region are steep slopes of 10% or greater, which usually lie adjacent to the eight- to ten-foot line, ultimately forming the low, damp pockets of land. There are exceptions to this with a few sloped areas of 10% or more occurring inland.

(c) Soils

Plate 33 illustrates substantial areas of soils ranging from moderately poor to poor for building; however, an equivalent amount of land consists of good soils as well. As a single ecological constraint, soils are not a critical concern, but combined with other factors such as drainage and slopes, soil types become a significant consideration.

(d) Drainage

Drainage patterns are dendritic-like, feeding into finger-like channels which are tributaries of the New River. Drainage directly affects the topography and soils of the area with respect to erodibility and low wetland formations.

4 MAN MADE INFLUENCES

(a) Existing Land Use

At the present time, the few existing support facilities and bachelor enlisted quarters at French Creek are sited between an industrial park to

the north, and the outer limit of the explosive quantity distance arcs from the magazine area to the south, as shown in Plate 34. The French Creek area development is presently in a stage of transition with the 2nd increment of construction in its final stages of completion, and the 3rd increment of facilities to be constructed in the near future. The existing development, originally included in the 1970 master plan, consists of buildings poorly sited at odd angles, a lack of facilities consideration as they relate to one another and an overly complicated vehicular network.

These problems could possibly be resolved or improved upon by the integration of these existing facilities with any new development planned for the French Creek area, by interrelating new and existing facilities and their uses. As can be seen in the 2nd increment of development, there are considerable changes in the planning, design, and siting of facilities, as initiated by the architectural and engineering firm under contract.

The first increment of construction included six bachelor enlisted quarters, flanking either side of a complex that includes supply administration and dining hall facilities. Immediately to the west of three of the bachelor enlisted quarters are the beginnings of another complex of support facilities which presently includes a dispensary and an academic instruction building. Sited just below these support facilities is the second increment of construction which includes six two-story bachelor enlisted quarters, each designed with enclosed interior courtyards, a dining hall, and an administration building sited on axes at opposite ends. In addition, a series of warehouses is planned and sited across the road from the dining hall to serve this second increment for supply and maintenance.

Facility site planning for the second increment has considered various ecological constraints in the area; flood plains, slopes, soil types and drainage patterns, which are significant factors in all development and planning on the base.

Section III-G-1, "Consolidate Major Commands in Individual Geographical Areas", detailed the recommended relocation of the major commands at Camp Lejeune. This plan includes the removal of all Force Troops Command personnel from Mainside and their consolidation at the French Creek Complex, the construction of a new naval hospital at Brewster Boulevard which will replace the existing hospital at Hadnot Peninsula, and the return of all 2nd Marine Division (Rein), FMF personnel from Camp Geiger to the regimental areas of Mainside. These changes will affect the base loading of Mainside and have been included in the proposed base loading shown in Table 7 below.

T7	<u>MAINSIDE</u>		
	<u>PROPOSED BASE LOADING</u>		
	<u>Officers</u>	<u>Enlisted</u>	<u>Civilian</u>
Marine Corps Base	209	1,309	3,910
2nd Marine Division (Rein), FMF (less Reconnaissance Battalion)	968	15,015	
Naval Regional Medical Center	156	345	280
Naval Regional Dental Center	22	40	
Transients	22	300	
TOTALS	1,340	17,009	4,190

3 ECOLOGICAL INFLUENCES

(a) Land Formations

Mainside is located on the edge of the flat highlands which encompass the central portions of Camp Lejeune. A detailed description of this land formation is provided in Section II-C-1. Where the highland borders the New River, fingers of eroded land, containing small streams, impinge into the higher ground. Elevations range from 0 to 30 feet with the greater part of the land lying between 25 and 30 feet.

(b) Ecological Constraints

A major step in the process of preparing a proposed development for Mainside is the consideration of existing ecological constraints. By designating particular areas where natural features limit potential man made development, the directions of future growth become clear. The natural features which can constrain a site vary depending on locale. In Mainside, these are the factors:

- (1) 25- and 100-year flood plains
- (2) Steeply sloping topography
- (3) Soil types
- (4) Watersheds and areas of poor drainage
- (5) Natural buffer zones

(1) Flood Plain

By direction of the General Accounting Office, all facilities constructed for government and Department of Defense use must be either sited outside the 100-year flood plain or built using a type of flood-protective construction. The Corps of Engineers, Wilmington District, has determined the 100-year frequency flood elevation for the New River at Jacksonville to be 7.0 feet above mean sea level. This elevation remains constant downstream to the Mainside area and is shown in Plate 22. Proceeding further downstream, the action of tidal flooding becomes more predominant, with the 100-year tidal elevation for the open coast being 11.0 feet above mean sea level.

(2) Topography

In general, the construction suitability of a location decreases as the slope of the land increases. At moderate percentages of slope, construction costs, amount of building material required, and construction time increase gradually. At slopes greater than 10-15%, the practicality and even feasibility of construction becomes questionable. For the Mainside

area, these potential problems are minor. The steeply sloped areas, shown in Plate 22, are limited to the borders of the small streambeds discussed earlier, and are usually a companion to the 100-year flood plain.

(3) Drainage

Mainside is geographically defined by the New River to the west and Bearhead Creek and Cogdels Creek lying on the north and south. These streams and smaller creeks are the result of the drainage patterns shown on Plate 22. The original construction modified the natural drainage patterns by greatly increasing the amount of run-off water from the large paved areas in the industrial area and by removing almost all of the existing woodlands. As a result, the amount of water carried by these streams has increased and, in areas where drainage is poor, has caused marshes to form along the stream banks. Examples of these areas are along Cogdels Creek to the east of the 2nd Division Industrial Area, and at the intersection of Beaver Dam Creek and Wallace Creek.

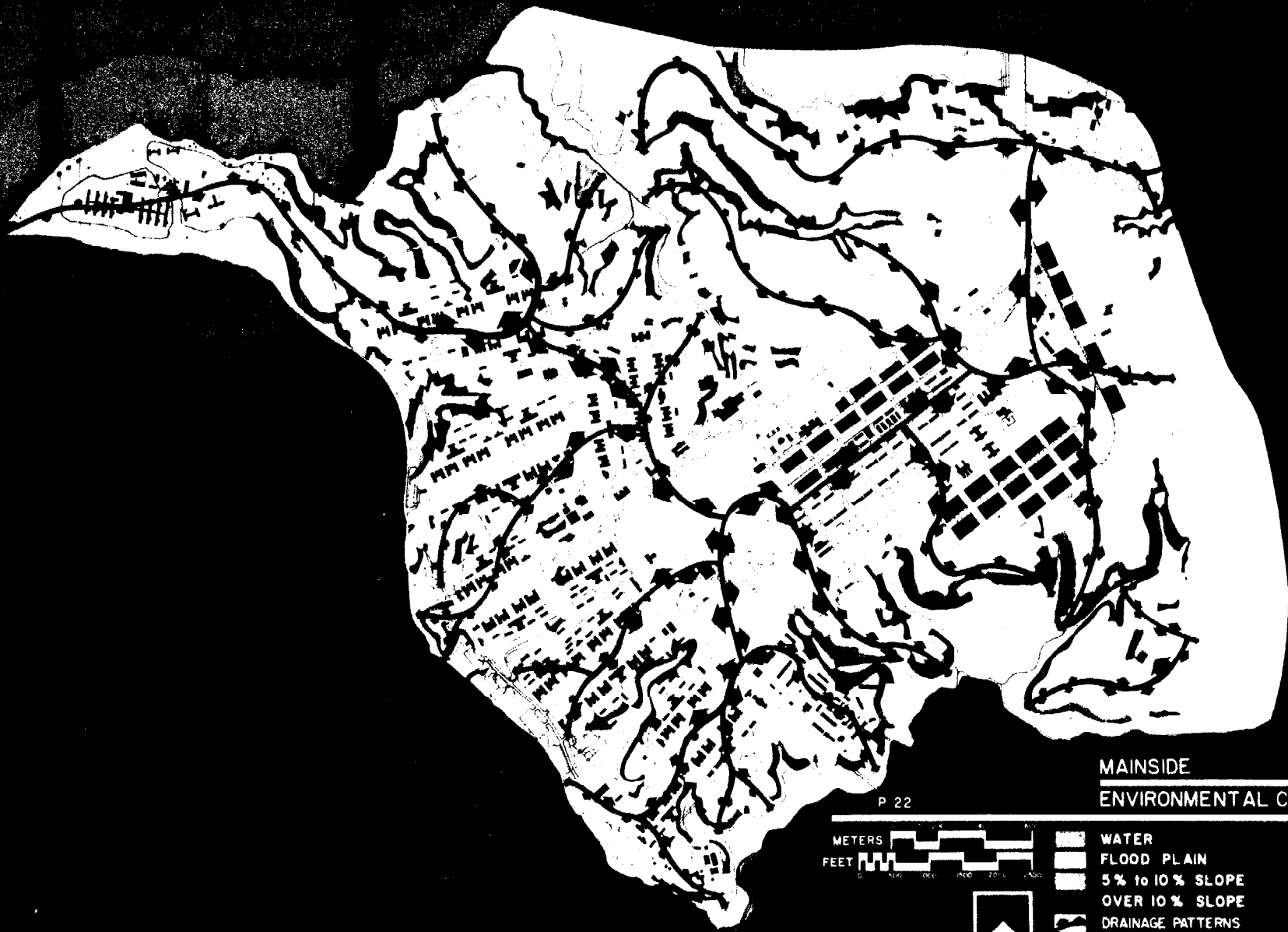
(4) Soils

The soils analysis for the Mainside area has been derived from the "Soil Survey and Woodland Suitability Guide for the Marine Corps Base Camp Lejeune", dated October 1964. As with the preceding natural constraints, the emphasis of the soils analysis was to determine which areas and soil types would tend to hinder or limit man made development. The soil survey divides the soils at Camp Lejeune into 16 basic categories which differ in depth of surface layers, texture and consistency, and drainage properties. As an integral part of the base conservation program, the soil survey is oriented toward soils and woodlands maintenance and does not contain direct information concerning construction suitability. However, by interpreting the detailed soil descriptions, it became apparent that a direct relationship existed between the 16 categories and the relative construction suitability.

Investigation revealed that, for construction purposes, categories 4, 5 and 6 and 14, 15 and 16 could be combined into two groups resulting in the final 12 categories shown in Plate 23. Approximately 90% of the soils in Mainside are of the GOOD to MODERATE classification. Several small pockets of MODERATE--POOR and POOR soils exist in the 1st, 4th, and 5th regimental areas as well as Hadnot Peninsula. However, a number of the original 1942 barracks were constructed in these areas without apparent difficulty. The original construction costs for these barracks are essentially the same as the others built in the same year. Nevertheless, further, more detailed soil studies of these areas should be conducted before new construction takes place. The dark green areas in Plate 23 represent the VERY POOR soil categories, which in almost all cases coincide with the creek beds and steeply sloped areas.

(5) Buffers and Recreation






All of the previously discussed environmental constraints have been considered to have a negative influence on potential man made development. All of them provided engineering or economic reasons to inhibit the siting of a facility in their locations. Another constraint, of a positive nature, exists which also inhibits the development of large areas of Mainside. These areas have been designated BUFFER ZONES and PASSIVE RECREATION areas. Their existence is a result of a combination of the various natural features and the man made development of Mainside. When the original development of Mainside was conceived, the stream beds, smaller creeks, marshes and steeply sloped areas were left in their natural states to form the buffer zones between adjacent regimental areas. These zones combine with the more rigid street patterns to define each regimental area. A second type of positive constraint has been indicated on Plate 24 as PASSIVE RECREATION and is composed of areas which have been naturally developed and maintained to form park lands. These areas include a 300-foot-wide open park land on the south side of Holcomb Boulevard, separating the industrial area from the boulevard, a 150-foot park land on either side of the rest of Holcomb Boulevard, and the land along the shores of the New River. The importance of these areas to the



MANSIDE
 ENVIRONMENTAL CONSTRAINT

P 22



-  WATER
-  FLOOD PLAIN
-  5% to 10% SLOPE
-  OVER 10% SLOPE
-  DRAINAGE PATTERNS



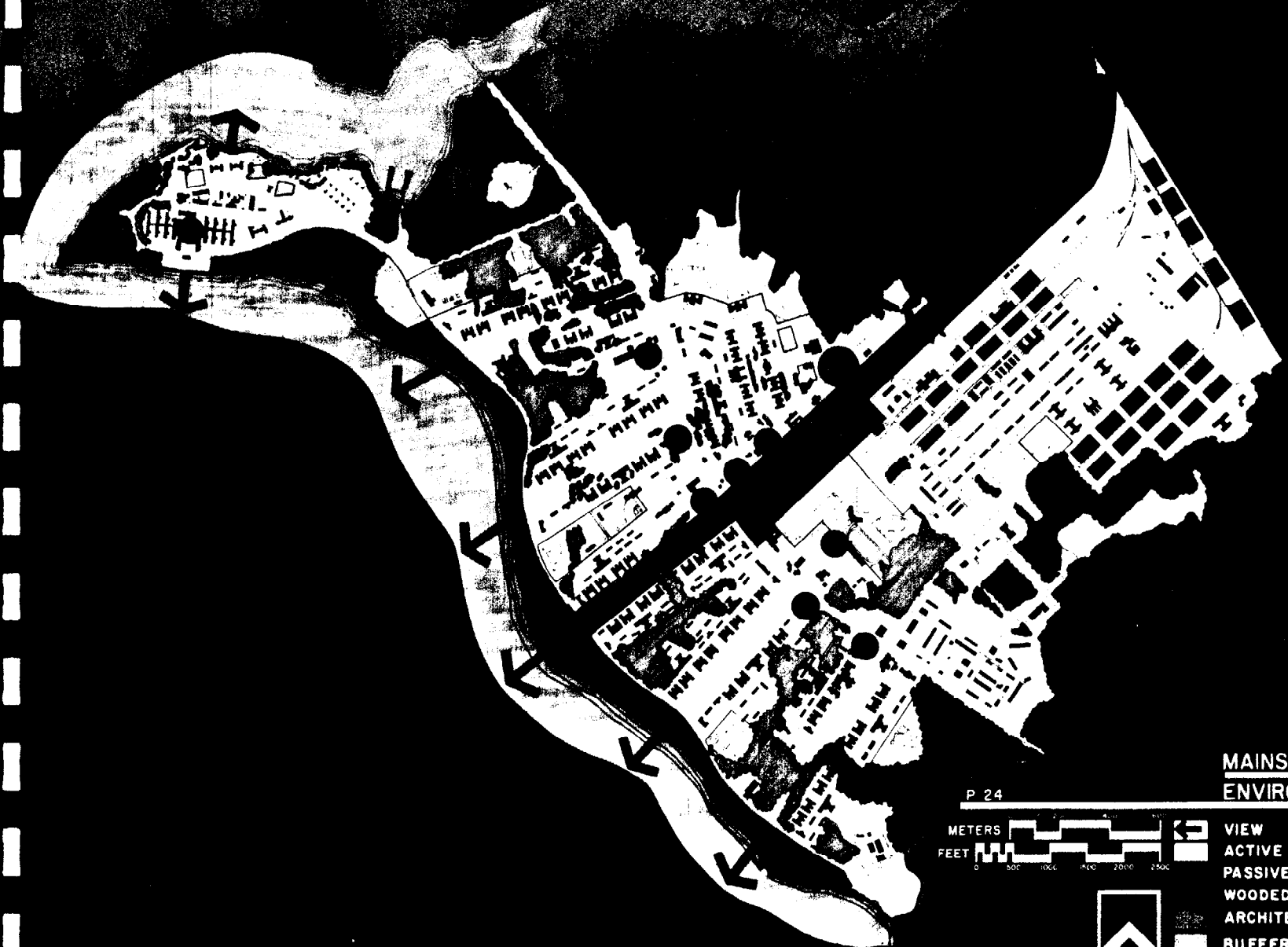


P. 23

MAINSIDE
SOIL CONDITIONS









- GOOD
- POOR
- MODERATE
- 7 MODERATE POOR
- 8 MODERATE POOR
- MODERATE POOR
- POOR
- POOR
- POOR
- 12 POOR
- VERY POOR



**MAINSIDE
ENVIRONMENTAL AMENITIES**

P 24



-  VIEW
-  ACTIVE RECREATION
-  PASSIVE RECREATION
-  WOODED LAND
-  ARCHITECTURAL FOCAL POINTS
-  BUFFER ZONE



EXECUTIVE SUMMARY

The activities included in this master plan are the Marine Corps Base, Camp Lejeune, the Marine Corps Air Station (H), New River, and the Naval Regional Medical Center. For planning purposes, these are referred to as the Camp Lejeune Complex. The Marine Corps Base is the primary east coast training site for Marine Corps forces and is the home of the Second Marine Division and the Force Troops Command. The New River Air Station conducts independent training activities for helicopter aircraft as well as providing support for combined activities with the Marine Corps Base. The Medical Center is one of the largest hospital facilities on the east coast and is required to provide services to over 110,000 active duty and retired personnel and their dependents.

Presently the Camp Lejeune Complex is faced with the following areas of concern:

1. Scatteration of organizational units with respect to geographical areas.
2. Needed replacement of substandard barracks facilities throughout the Marine Corps Base.
3. Obsolete hospital facilities for the Naval Regional Medical Center.
4. Substandard and inadequate personnel support, shops and warehouse and training facilities throughout the complex.
5. Potential community encroachment along the complex perimeter.
6. Inefficient transportation patterns.
7. Potential changes and additions to existing Marine Corps weapons systems and organizations.

The following is a summary of the most important recommendations formulated in the master plan to resolve these problem areas:

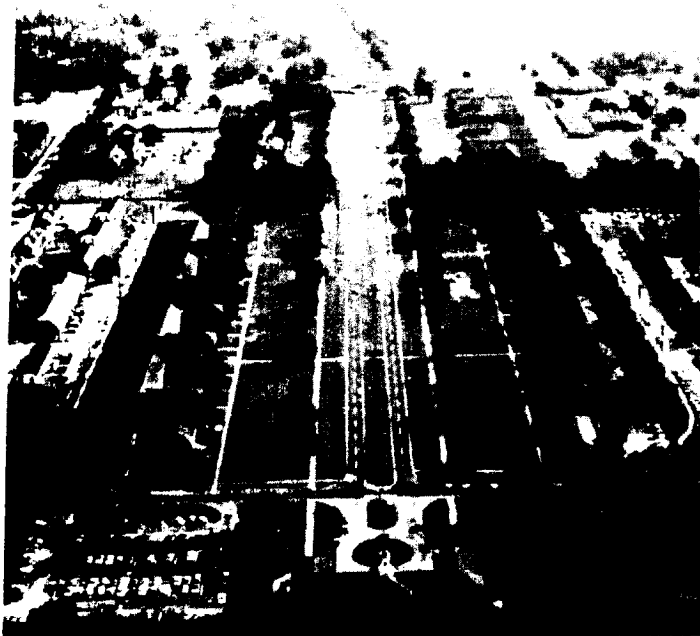
1. Consolidate the various individual Marine Corps commands located in separate geographical areas in coordination with the barracks replacement program. Included in this proposal are (a) the return of the 2nd Marine Division to the five regimental areas of Mainside; (b) the relocation of the AMTRAC Battalion to Mile Hammock Bay; (c) the consolidation of heavy equipment training at Courthouse Bay, including the Motor Transport School and the Engineers School; (d) the completion of the Force Troops consolidation at French Creek; and (e) the utilization of the Camp Geiger complex for either the Marine Corps reserve units or the return of the Infantry Training Regiment from Parris Island, South Carolina.
2. Coordinate the barracks replacement program for Mainside and the other developed areas of Camp Lejeune in such a way as to phase in new construction with continued use of the existing housing areas. Adopt a comprehensive site plan for Mainside which will result in an efficient and attractive living environment for over 15,000 personnel.
3. Construct the replacement hospital for the Naval Regional Medical Center at the Brewster Boulevard site and use the adequate portions of the Hadnot Peninsula facility for Marine Corps Base support and administrative functions.
4. Develop replacement programs for community support facilities, shops and warehouses, and training buildings similar to the barracks replacement program. Priority for implementation should be given to newly developed areas such as French Creek and Mile Hammock Bay.
5. Prevent community encroachment along complex perimeter by increasing "visibility" in undeveloped training and maneuver areas, by utilizing adjacent land where possible, and by excessing unneeded land.

6. Decrease the requirements for transportation between West Base and Mainside by consolidation of individual commands as discussed above and by developing a regional support complex at Curtis Road triangle.
7. Develop the Mile Hammock Bay site for the AMTRAC Battalion with the capability for expansion to include future amphibious weapons systems such as large hovercraft.
8. Investigate the possibility of relocating the training ranges which cross the Intracoastal Waterway to remote offshore locations.
9. Coordinate the siting of operational training facilities at the New River Air Station with existing facilities to develop a more logical land use plan for the operational areas.
10. Relocate all personnel support and troop housing facilities from the operations area at the New River Air Station and replace them on the west side of the Seaboard Coast Line Railroad.
11. Expand New River operational capability by relocating headquarters to Bancroft Street and developing an air operations complex on the east side of the airfield, including a transient aircraft parking area, control tower and operations building.
12. Expand the ordnance storage area at the New River Air Station.

The preceding recommendations are considered to be the minimum actions required to allow the complex to continue to accomplish its mission. Each of these recommendations is delineated in greater detail, along with the supporting rationale, in the following sections.

I INTRODUCTION

A OBJECTIVE



The preparation of this master plan for the Camp Lejeune Complex was first requested by Marine Corps Headquarters on 6 November 1972. The plan was then envisioned to be an updated version of an existing master plan for the Marine Corps Base, Camp Lejeune, dated March 1970. The request was brought about by a number of factors which caused the existing plan to become significantly obsolete. A primary factor was a change in philosophy concerning construction of bachelor enlisted quarters, a major planning factor at Camp Lejeune. Further discussions among Marine Corps Headquarters personnel expanded the scope of the plan to include all of the areas and tenants at Marine Corps Base as well as the Marine Corps Air Station (Helicopter), New River. Included among the tenant commands are the Naval Regional Medical Center (NRMC), Camp Lejeune.

No previous master plan for New River had been accomplished. Because of the many common features and interactions of the two bases it was appropriate to include them in a combined master plan. NRMC, an integral



part of Camp Lejeune operations, was in the preliminary stages of planning for a new facility and was also included as a factor in the new master plan. Other areas of the 1970 plan which had become obsolete concerned the future development of the Camp Geiger, Montford Point, and Court-house Bay areas. Because of the expansion of the scope to include all of the independent commands in the region, the plan has been entitled the Camp Lejeune Complex Master Plan and the area is referred to as such throughout the plan. The increased scope, along with changes in federal and DOD planning policies and changes in NAVFACENGCOM policy concerning master plan format, dictated that the plan be prepared as a major revision requiring essentially a completely new planning effort.

The task of preparing the plan was assigned to the Naval Facilities Engineering Command and headquarters personnel, with the assistance of Atlantic Division, NAVFACENGCOM. The plan was initiated in August 1973.

D. COMPLEX DESCRIPTION

The Camp Lejeune Complex is composed of the Marine Corps Base, Camp Lejeune, the Marine Corps Air Station, New River, and the Naval Regional Medical Center. These three host activities have a number of tenant commands including the 2nd Marine Division, the Force Troops, Fleet Marine Force, and the Marine Air Groups 26 and 29. The Marine Corps Base, "The World's Most Complete Amphibious Training Base", is a second-echelon command directly under the command of the Commandant of the Marine Corps. The New River Air Station is one of three activities which form the Marine Corps Air Bases Eastern Area, with headquarters at Cherry Point. The Naval Regional Medical Center is an independent command under the Bureau of Medicine and Surgery. Its organization is shown in Figure 2.

The complex, shown in Figure 3, is located on the coastal plain of North Carolina, 350 miles south of Washington, D. C., and 220 miles north of Charleston, South Carolina. Consisting of approximately 180 square miles of territory, the complex encompasses the New River estuary and has over 11 miles of shoreline along the Atlantic Ocean. United States Route 17 and State Route 24 form the western and northeastern boundaries of the complex. The city of Jacksonville is located on the north boundary,

adjacent to the New River Air Station, and is the major location of off-base housing and community support. The surrounding countryside is rural in nature with large fresh water swamps or pocosins limiting man made development.

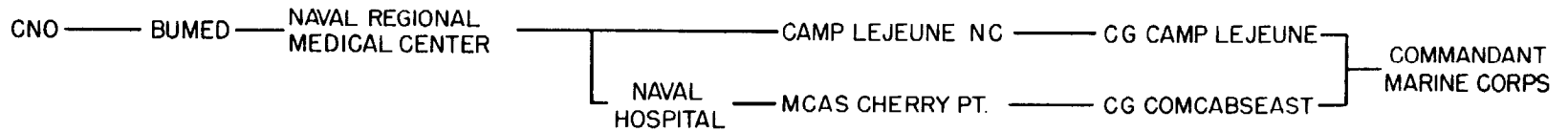
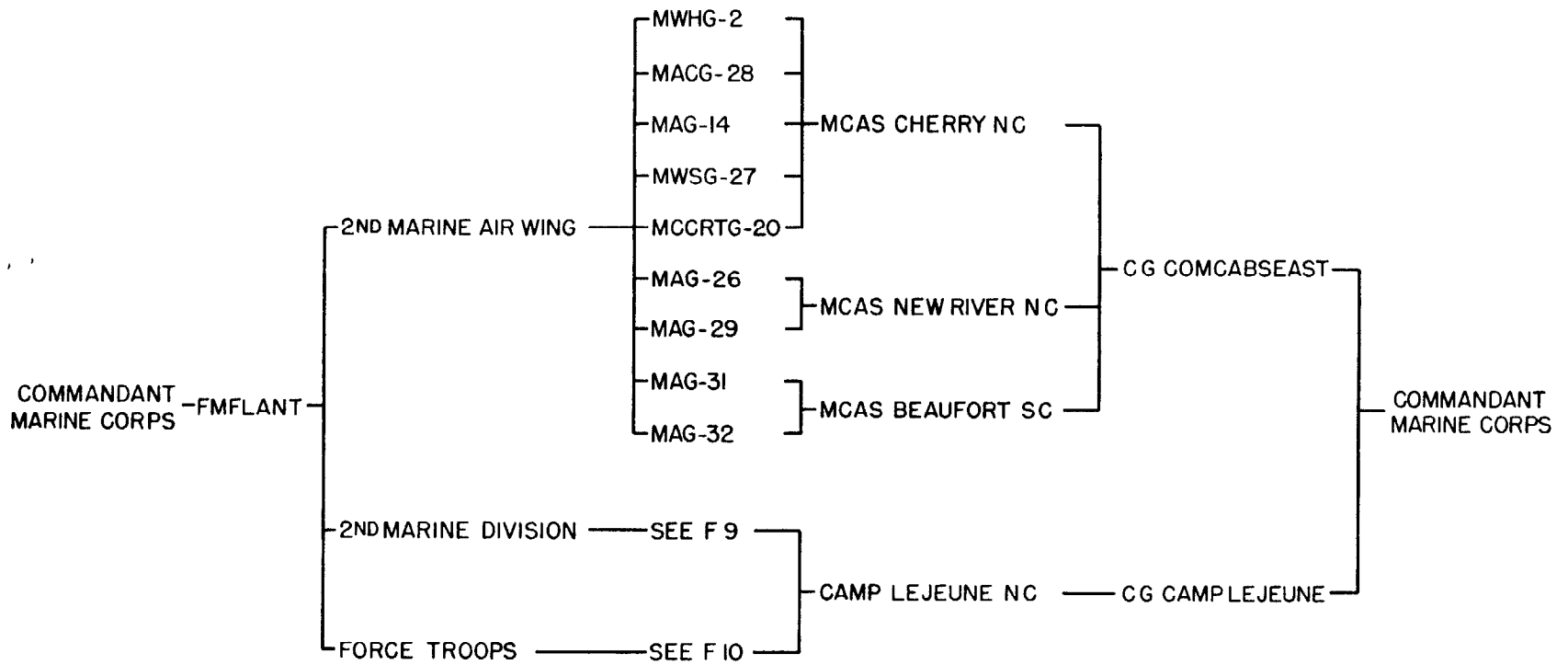
Over 46,000 military personnel are assigned to the various commands within the complex. An additional 47,000 dependents of active duty personnel receive support, of whom 12,000 live on the installation. Including the retired personnel in the region, over 110,000 people either work at, or are eligible for support from, the complex.

The basic mission of the activities within the complex is to provide and maintain a highly trained force-in-readiness to execute amphibious assault operations, including all of the supporting units that may be required.

Included within this basic mission is the operation of a number of specialized schools for all forms of combat support.

The complex has grown considerably since its original construction in 1942. The periodic additions to the mission of the Marine Corps have brought about several growth periods when groups of new facilities were constructed. Nevertheless, large portions of the urban areas are essentially the same as they were in the early 1940's. Virtually all of the facilities constructed in the 1940's are still being used today, with most needing replacement. Unfortunately, it will require many more years to replace these facilities, even at optimistic construction rates. Another problem, related to facilities, is the redistribution of commands among the various developed areas. Over the years, the lack of new facilities has caused newly formed units to be distributed haphazardly among existing units. This unavoidable practice has brought about the scatteration of commands which exists today. With the exception of the main gate area, the road network has maintained its 1942 configuration.

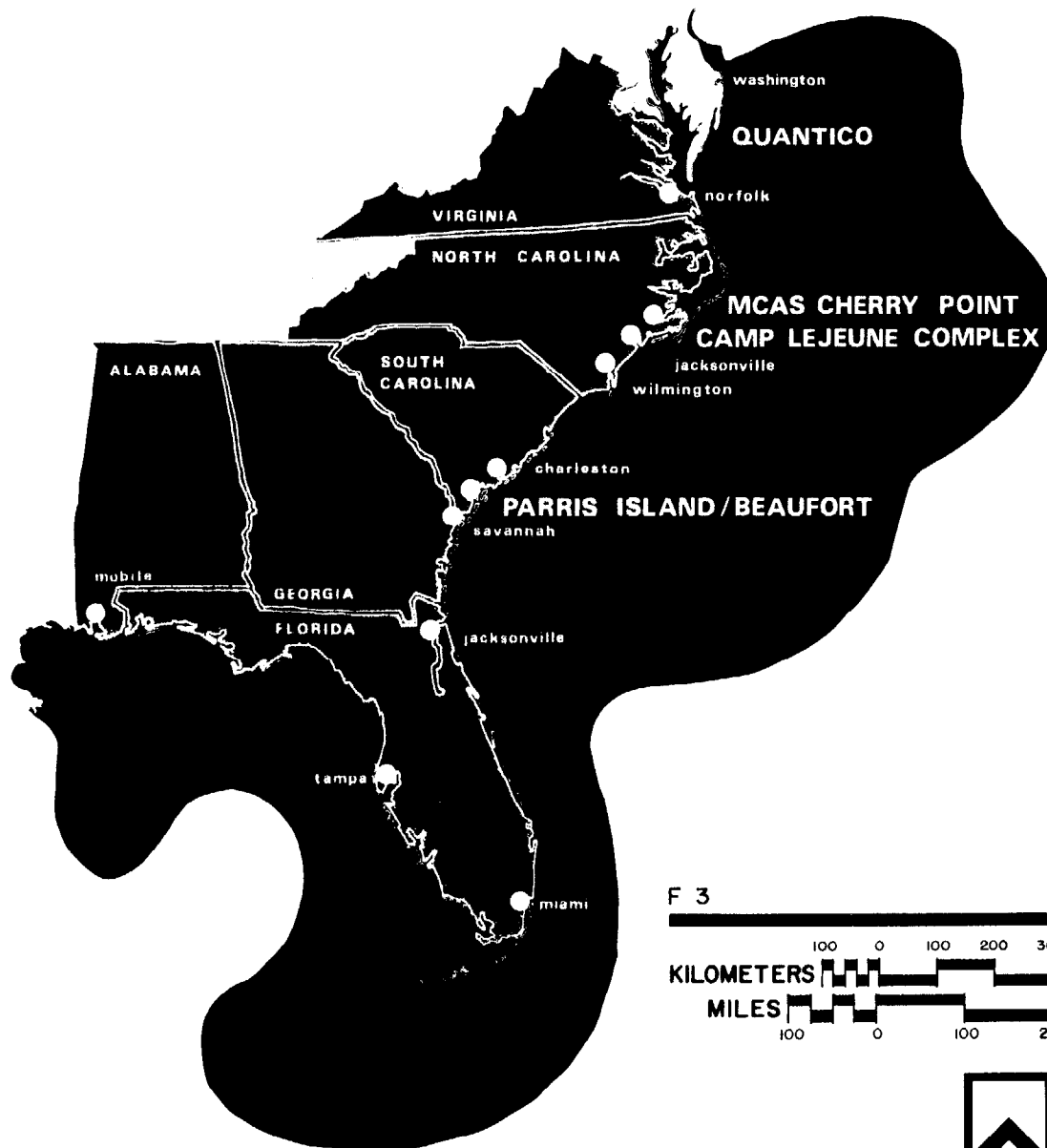
Presently, the organizational commands within the Camp Lejeune Complex are adequately accomplishing their assigned missions. However, the



◀ OPERATIONAL ACTIVITIES ▶

ORGANIZATION

REGIONAL MARINE CORPS ACTIVITIES



washington

QUANTICO

norfolk

VIRGINIA

NORTH CAROLINA

**MCAS CHERRY POINT
CAMP LEJEUNE COMPLEX**

jacksonville

wilmington

SOUTH CAROLINA

charleston

PARRIS ISLAND/BEAUFORT

savannah

ALABAMA

mobile

GEORGIA

FLORIDA

jacksonville

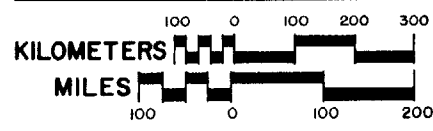
tampa

miami

EASTERN AREA

MARINE CORPS ACTIVITIES

F 3



problems which exist today produce inefficiencies in training operations, inconvenient and awkward daily routines, and a substandard living environment for many Marine Corps personnel. In the future these problems, along with new constraints, could have an adverse impact on the mission of the Marine Corps at Camp Lejeune, unless proper preventive planning and implementation are begun.

D MAN MADE INFLUENCES

1 EXISTING LAND USE



The major land use pattern for the regional study area is shown in Plate 3. The existing uses of the land can be divided into five broad categories, representing the most significant planning characteristics of each area. Several of the land uses are reflective of the natural land formations discussed previously in Ecological and Physical Influences. For example, the first land use designation, "Poor Development Potential", represents large areas which include marshlands, sloughs, hummocks and broken land. The marshland, or pocosins, containing soft pines, red cedars and cypress, are a source of lumber but have no potential for physical development. Secondly, the three large publicly owned parcels of land account for the largest single land use in the regional study area. These are the Croatan National Forest, the Hofmann Forest which is owned by North Carolina State University, and Camp Davis Forest. Much of the land within these areas is also marshland and forest. The commercial and residential areas, consisting of low density development, are also shown in Plate 3. The remaining land in the study area is predominantly rural farm land with scattered housing near the major roads.

The large amount of public-held land, together with the many unusable pocosins and sloughs, has seriously restricted the area available for urban development. Two major corridors of developable land exist in the study area. These extend south from New Bern to Swansboro, along Routes 17 and 58, and from Swansboro northwest to Jacksonville and Richlands along Routes 24 and 258. Because the regional study area is adjacent to the Atlantic Ocean, the barrier banks and the lands around the estuaries have been developed as tourist and resort residential areas. Some of these residential areas are adjacent to the MCB Camp Lejeune. The commercial areas are of two basic types. The cities of Jacksonville and New Bern have older urban center shopping districts which are in the original sections of the towns. The newer commercial enterprises are of the linear strip development type along Routes 17 and 24.

2 DISTRIBUTIONS SYSTEMS

(a) Surface Transportation Network

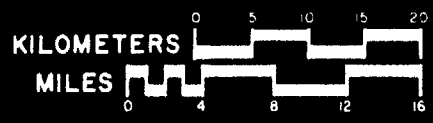
The quality of the transportation systems within the regional study area is, in many ways, a reflection of the level of land use development. Throughout the study area generally, the requirement for transportation is low due to the predominantly rural nature of the area. In addition, the study area is outside the major north-south routes of travel and therefore does not contain any of the major interstate road systems. The areas around the Camp Lejeune Complex and the city of Jacksonville are exceptions to the low density of the area. As a result, most of the traffic and, therefore, better roads are in this area.

The two major roads in the regional study area are State Route N. C. 24 and U. S. 17 as shown in Plate 4. East-west N. C. Highway 24 runs parallel to the northeastern boundary of the Camp Lejeune Complex and is the major route to MCAS Cherry Point and Morehead City. The road has only two lanes with the exception of the portion along the station, which has been widened to four and six lanes. North-south U. S. Highway 17 passes along the western station boundary and extends to New Bern to the



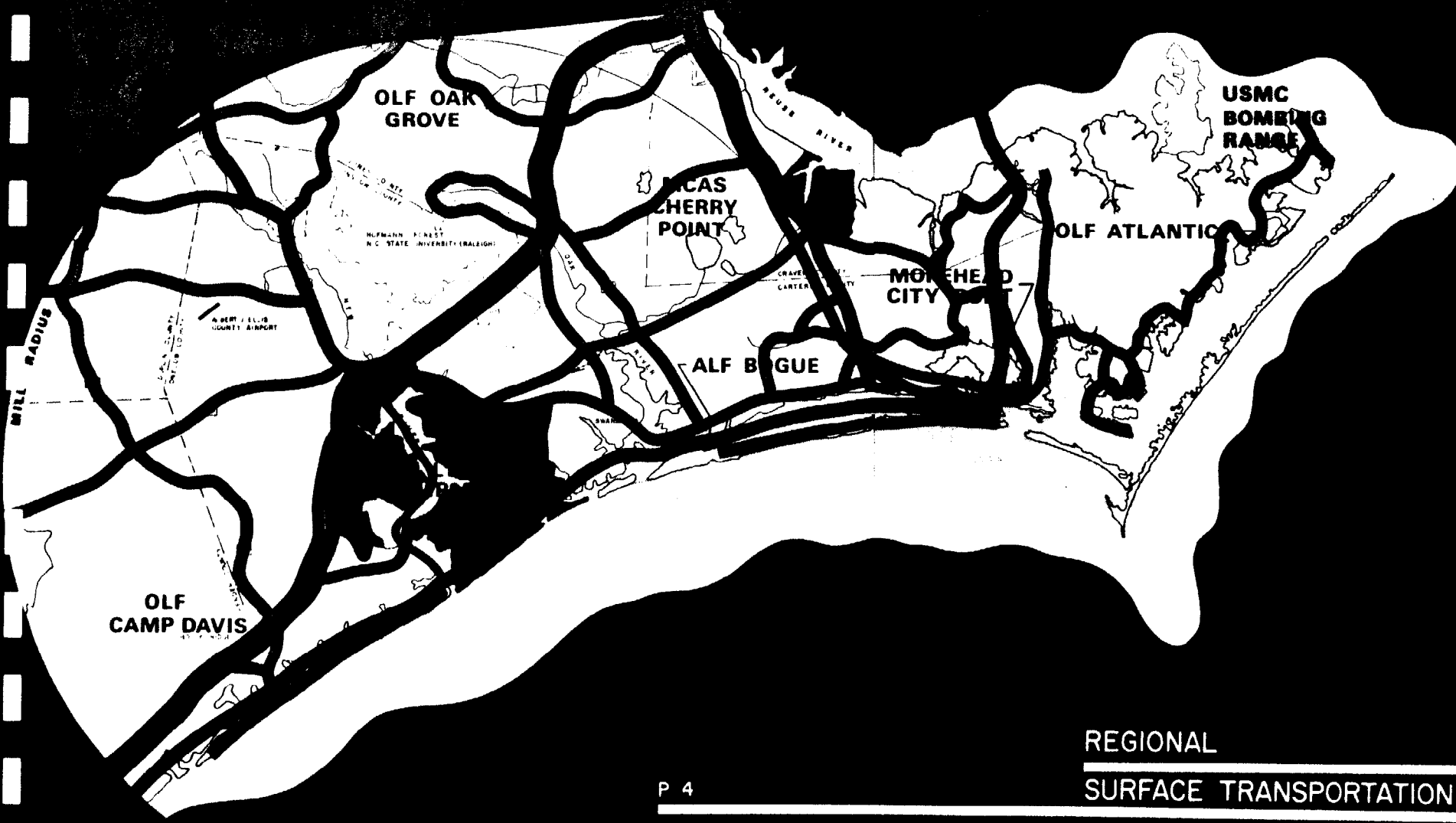
REGIONAL
EXISTING LAND USE

P 3



- MILITARY
- PUBLIC LAND
- POOR DEVELOPMENT POTENTIAL
- RURAL FARM LAND
- RESIDENTIAL
- COMMERCIAL





MILL RADIUS

OLF OAK GROVE

OLCAS CHERRY POINT

USMC BOMBING RANGE

OLF ATLANTIC

MOREHEAD CITY

OLF BOGUE

OLF CAMP DAVIS

P 4

REGIONAL
SURFACE TRANSPORTATION



- PRIMARY ROADS
- SECONDARY ROADS
- LOCAL ROADS
- RAILROADS
- WATER ROUTES



north and Wilmington to the south. The road is two lanes wide with the exception of a short four-lane section near the MCAS New River. Traffic on these roads is mainly attributable to Camp Lejeune Complex personnel and is heaviest near Jacksonville and the base.

Major highway construction projects in the region include an overpass at the intersection of Camp Lejeune's main gate and Route 24 to relieve rush-hour traffic problems. The project was completed in late 1974. A long range highway project that would provide a bypass route for N.C. 24 around the city of Jacksonville has been proposed by state traffic planners. Diverting some of the traffic generated by the base to the bypass would help to relieve congestion in Jacksonville. The project has not been funded at this date, nor is it expected in the near future. The state has also prepared a five-year plan for the development of N.C. 24 to a four-lane divided highway from Fayetteville to Morehead City. The section of N.C. 24 from Swansboro to Morehead City would be the last phase of the project. The proposal has been postponed and is now part of the long range planning.

The state highway system in the region appears adequate for the volume of traffic in the rural areas but does not provide efficient long range automotive transportation. In particular, Routes 17 and 24 are two-lane roads with frequent small towns along their routes. The average speed on these roads is 40-50 miles per hour. Traffic counts for the roads adjacent to the Marine Corps Complex are provided in Section III-D-2.

Bus transportation is the major public mass transit system in the Onslow County area and trucks are the principal freight movers.

The regional study area is served by the Seaboard Coast Line Railroad which extends through much of the east coast. Rail service is provided from Wilmington to New Bern, via Jacksonville. A spur comes off the main line, enters the Marine Corps Base east of the main gate, and serves all of the supply and warehouse areas. The Marine Corps also has cognizance over a Department of Defense rail line which extends from

the supply area at Camp Lejeune to Cherry Point. However, it has not been used for several years and is presently in need of maintenance and repair.

The Intracoastal Waterway, which extends almost the entire length of the east coast, passes through the Camp Lejeune Complex and runs through the natural protected waterways formed by the barrier banks and the mainland. The waterway carries a heavy flow of private pleasure boats during the warmer months of the year and a steady flow of commercial barges year around. Several of the small towns and cities along the route have developed water-oriented commercial areas having marinas and boat maintenance and storage facilities to serve the waterway. The region contains several large coastal estuaries such as the Neuse River, the New River, and the Oak River. These are navigable and are used for commercial fishing and shrimping.

(b) Air Transportation Network

Air transportation within the regional study area is divided between civilian and military operations. Plate 5 illustrates the combined airspace use for the study area. The commercial operations are conducted out of both the Albert J. Ellis Airport near Jacksonville and the New Bern Airport. Ellis Airport has one runway, which has recently been extended to 7000 feet in length, capable of serving jet aircraft. The New Bern Airport has two runways and is also jet-capable. Both airports are served by Piedmont Airlines which operate daily flights to Washington, D. C. and other military bases in the south. Plate 6 indicates the areas in which civilian aircraft are restricted, due to the various military ground and air operations which are conducted there. The airspace surrounding the commercial airports is also restricted as to the allowed flight altitudes. Three low altitude federal airways pass through the study area as shown.

The military flight operations conducted within the study area are more complex. These involve the helicopter and fixed wing non-jet operations



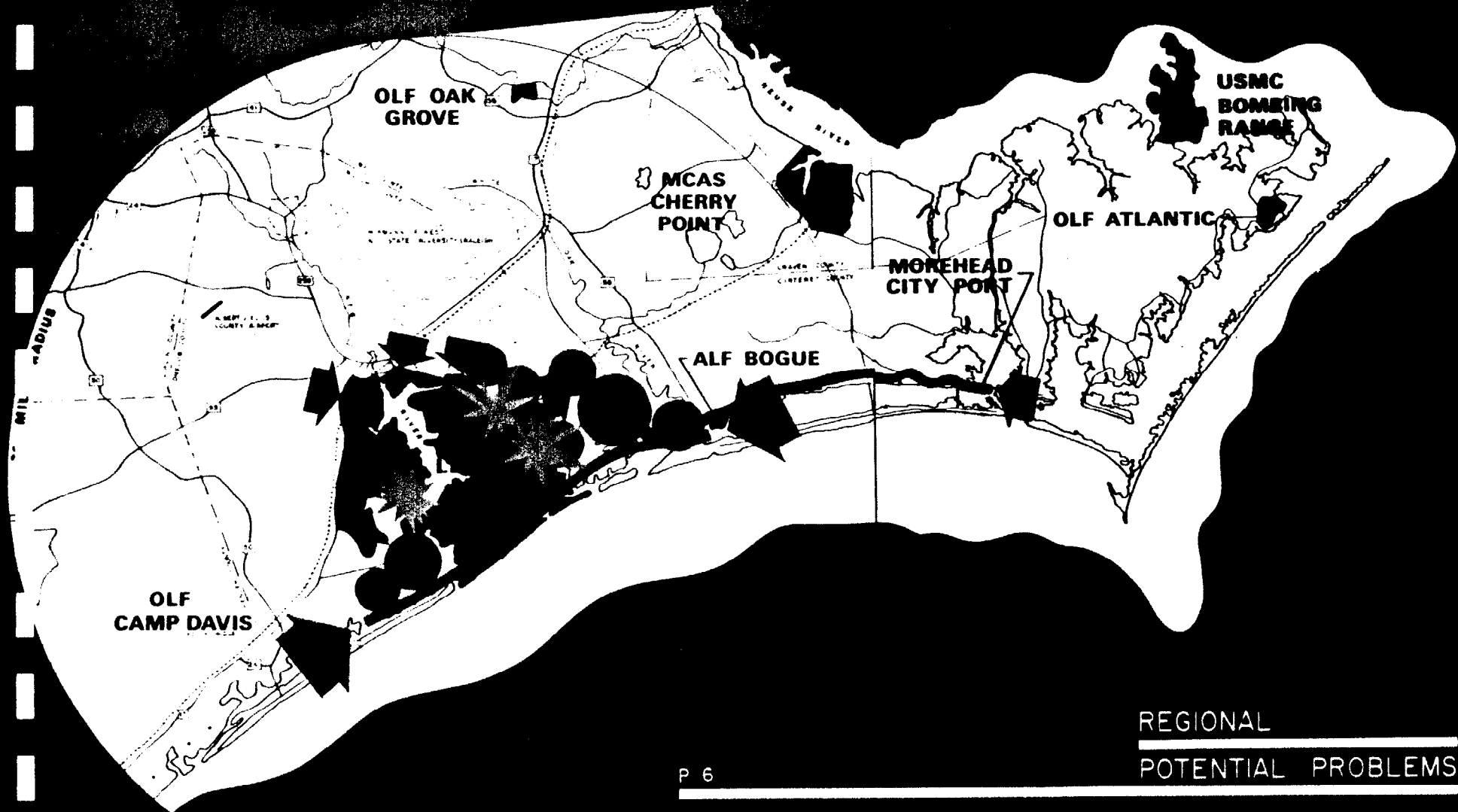
REGIONAL
AIR TRANSPORTATION

P 5



- MARINE CORPS ACTIVITIES
- 0 - 700 FOOT CONTROL
- 700 - 1200 FOOT CONTROL
- CIVILIAN PLANES RESTRICTED
- LOW ALTITUDE FEDERAL AIRWAYS





REGIONAL
POTENTIAL PROBLEMS

P 6



- COMMUNITY ENCROACHMENT
- FIRING AREAS
- NOISE IMPACT AREAS
- INTRACOASTAL WATERWAY
- ROUTE 24



NORTH

originating at MCAS(H) Jacksonville, the all-weather jet aircraft operations from MCAS Cherry Point, and the training operations conducted at the auxiliary and outlying fields. The majority of helicopter operations from MCAS(H) Jacksonville are done in conjunction with the Marine Corps Base training maneuvers throughout Camp Lejeune. These are discussed and shown in more detail in Section III-D-2(b) and IV-F-2(d). Other helicopter operations are also conducted at OLF Camp Davis and OLF Oak Grove. Periodically, large scale training maneuvers are conducted by the Marine Corps on non-military property such as the Hofmann and Croatan Forests. Helicopter operations are used in support of these maneuvers as well.

Jet aircraft operations originating from MCAS Cherry Point are more extensive and involve OLF Atlantic, ALF Bogue, and the Marine Corps bombing ranges to the northeast of Cherry Point. Bombing practice is also conducted in the impact areas of Camp Lejeune.

(c) Utility Distribution Network

The utility systems within the regional study area are largely limited to individual systems for the few areas of higher population density such as Jacksonville, New Bern and Morehead City. In addition, the Camp Lejeune Complex and MCAS Cherry Point have extensive utility systems of their own.

The city of Jacksonville operates a single municipal sewage treatment plant which is limited and cannot supply all of the rural area surrounding Jacksonville and the Camp Lejeune Complex. In addition, the predominantly flat terrain limits the area that can be served by a single plant. Therefore, there are many individual septic tank systems throughout the regional study area. These systems contribute to the overall pollution of the New River, the Oak River and the Neuse River. The effluent from the Jacksonville Municipal Plant and the existing sewage treatment plants at the Camp Lejeune Complex empty into the New River basin.

Potable water for almost all of the regional study area is obtained from wells. Because of the geological formation of the soils, large quantities of water are available from wells drilled to an average depth of 200 feet. The average yield per well is 200 gallons per minute.

The study area is connected to the east coast electrical transmission grid by a series of secondary lines extending from the city of Wilmington to Jacksonville, MCAS Cherry Point and New Bern. For New Bern, the lines proceed northward again to the city of Greenville. Electrical power is locally distributed by the Carolina Power and Light Company and the Jones-Onslow Electric Membership Corporation. Electrical power generating plants are located at Wilmington and Cherry Point. Wilmington is rated for 1000-2500 megawatts while Cherry Point has only a 10- to 25-megawatt rating.

The study area contains no crude oil or liquid gas pipelines, but does have two 22" natural gas pipelines which extend south to Wilmington and north to New Bern.

The area contains no appreciable deposits of oil, natural gas, natural liquid gas, or coal or oil shale. Continuous natural gas service is not available in most parts of the study area including the Jacksonville area. Individual bottled gas is predominantly used. Telephone service throughout the area is provided by Carolina Telephone and Telegraph Company.

C ECOLOGICAL INFLUENCES



The development of the proposals for the Camp Lejeune Complex includes a comparison of the facility and operational requirements and the potential physical capability of the site. This potential capability is determined by combining and analyzing the constraints imposed on the land by natural and man made factors. This section will investigate the ecological influences for the overall Camp Lejeune Complex. Many of the natural features of the base are discussed on a regional basis in Section II-C, and are reviewed briefly here. The natural features which are considered to restrict Marine Corps development include:

1. Land formations
2. Topography
3. Ground cover
4. Soil types
5. Drainage, ground water and tides
6. Geology
7. Fauna

1 LAND FORMATIONS

The land formations within the Camp Lejeune Complex are shown in Plate 7 and described in Section II-C-1. The six classifications in the regional analysis have been retained and applied in greater detail.

2 TOPOGRAPHY

The topography of Camp Lejeune can best be visualized as a flat plain sloping gently toward the New River. The elevation ranges from sea level to 72 feet; however, most of the land is from 20 to 40 feet above sea level, as can be seen in Plate 8. The coastline is paralleled by a series of alluvial deposits and tidal salt marshes which are protected by relatively stable sand dunes forming the barrier strip along the coast. These sand dunes generally range from 15 to 20 feet in height. The flat plain is crossed by streams which are relatively short and have strongly sloping sides with V-shaped cross-sections. However, because of the shallow slope of the topography, and the relatively few streams, drainage is the most critical factor which determines the suitability of soil for development. The base is encompassed by vast areas of pocosins and swampland which evolved because of these topographic features.

3 GROUND COVER

Camp Lejeune is predominantly arboreal or tree-covered in nature with extensive amounts of softwood, primarily loblolly pine, but with other pine species and substantial stands of hardwood. Plate 9 illustrates the various types of ground cover. The total managed forest covers over 60,000 acres (total base land area is approximately 70,000 acres) and is 230,000,000,000 broad feet in volume. Areas on the periphery of forests contain several species of shrubs, vines and herbs. Areas with acidic soils contain species of carnivorous plants including the venus flytrap, sundew, and pitcher plants. Upland pocosins in the base are overgrown with brush and uneconomically harvested species of pine.

4 SOIL TYPES

Soils consist of fine sands, silts, clays and a bluish gumbo-like mud of great plasticity, as shown in Plate 10. Near swales and gulleys, the strata dip in such a manner as to indicate subsidence due to underlying ancient river channels or solution channels in the limestone. Relief has



MARINE CORPS COMPLEX
LAND FORMATIONS

-  COASTAL DUNES
-  POCOSINS
-  SALT MARSHES
-  FLAT LANDS
-  BROKEN LAND
-  DEVELOPED AREAS



MARINE CORPS COMPLEX
 TOPOGRAPHY

P 8

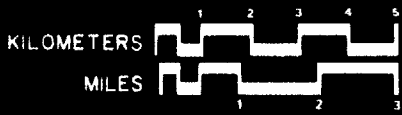


- BELOW -5'
- 5' to 0'
- 0' to 10'
- 10' to 30'
- 30' to 50'
- 50' and above



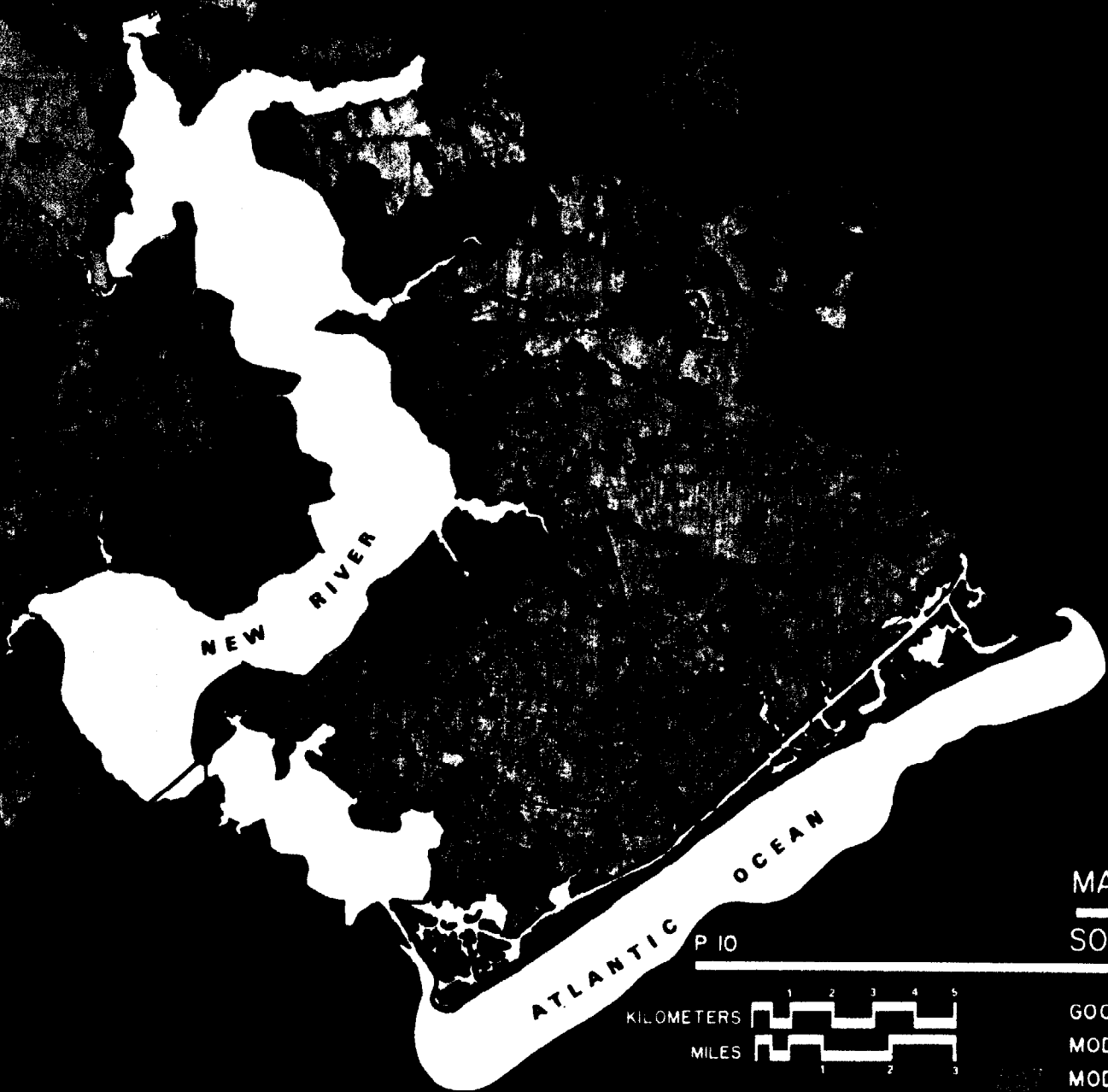
MARINE CORPS COMPLEX
GROUND COVER

P 9



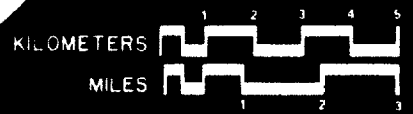
- PRIME TIMBER AREAS
- MARGINAL WOODLAND
- OPEN MARSHLAND
- OPEN AREAS
- WOODED MARSHLAND
- DEVELOPED AREAS





MARINE CORPS COMPLEX
 SOIL CONSTRUCTION SUITABILITY

P 10



NORTH

- GOOD
- MODERATE
- MODERATE TO POOR
- POOR
- VERY POOR

High - this is where CL4 is as of 5/26, 7m

Table 1. Format and Description of Initial Assessment Study Report
TABLE OF CONTENTS.

Foreword - Explains the importance of the report and the NACIP program to the Navy.

Acknowledgements - Commends the support, assistance, and cooperation provided by the activity, EFD, and other personnel during the study.

1.0 Introduction - Gives authority for study and a brief description of NACIP program, Initial Assessment Study, and what is included in the report.

2.0 Significant Findings - Summarizes findings, evidence that supports or discredits contamination or migration, and other observations of interest to the activity.

3.0 Conclusions - Includes reasoned deductions or inference from the significant findings concerning the probability of contamination and for the migration of contamination.

4.0 Recommendations - Recommends NACIP confirmation study or other action, if necessary, based on findings of and observations during the study.

5.0 Background

5.1 ~~General~~ - Describes location, size, and major facilities at activity, illustrating the activity boundaries and surrounding facilities.

5.2 ~~History~~ - describes historical evolution of the activity and its major operations, and dates of real estate acquisitions.

5.3 ~~Physical Features~~

5.3.1 ~~Climatology~~ - describes temperature ranges, precipitation amounts and occurrences, humidity, evaporation and evapotranspiration rates, frost depth, and wind direction and speed.

5.3.2 ~~Topography~~ - describes terrain and drainage basins.

5.3.3 ~~Geology~~ - describes, in detail, geological formations outcropping at and underlying the activity, and types and characteristics of strata.

5.3.4 ~~Hydrology~~

5.3.4.1 ~~Surface water~~ - discusses direction, rate of flow, quality, and uses of surface drainage and bodies of water at and adjoining the activity.

5.3.4.2 ~~Groundwater~~ - discusses location, direction, rate of flow, quality, and uses of groundwater at the activity and surrounding areas, identifying recharge and discharge areas and other characteristics of the groundwater.

5.3.4.3 ~~Migration Potential~~ - assesses the probability, rate, and direction of contamination migration, if present, based on geology and hydrology. Also assesses the potential of on-base migration from off-base sources.

nothing

nothing

nothing

nothing

nothing

nothing

edited
to WPC after
your comments

at WPC for Keyboarding

at WPC for Keyboarding

nothing

Table 1. Format and Description of Initial Assessment Study Report (Continued)

	5.4 ^{5.4} Biological Features
	5.4.1 § Terrestrial Ecosystems - describes flora and fauna on land areas of the activity, and types, occurrence, age, condition, and health of various species, with special emphasis on unusual conditions that may indicate contamination.
P r e t f	40 WPC today I updates 5.4.2 § Wetlands Ecosystems - describes flora and fauna of wetlands areas, including similar information as described above in "terrestrial ecosystems."
	5.4.3 § Aquatic ecosystems - describes flora and fauna of aquatic areas, including similar information described above in "terrestrial ecosystems."
	5.4.4 § Rare, Threatened, or Endangered Species - identifies and describes any, rare, threatened, or endangered species and their habitats at the activity.
	6.0 <u>Activity Findings</u>
	6.1 § Operations, Ordnance Includes a section describing each ordnance operation at the activity, emphasizing years of operation; location; chemicals/materials used in the operation, including amount, supplies, storage site; spills and accidents involving chemicals; waste products, emissions and discharges (airborne, waterborne, and scrap), including disposal locations and amounts; and deposition of bad lots of materials. Demilitarization and ordnance testing operations are included in this section.
	6.2 § Operations, Non-ordnance Includes information as previously described in "operations, ordnance" applicable to non-ordnance operations including metal-plating, degreasing, painting, machining, vehicle and locomotive maintenance, pest control, battery service, printing, electrical maintenance, steam production, vehicle and other washing operations, and water treatment.
	6.3 § Operations, Radiological Includes information as previously described in "operations, ordnance" applicable to radiological operations including radiological instrument calibration, magnesium-thorium alloy and uranium counterweight fabrication and refabrication, and medical tracer research. This section also includes information on equipment containing radiological materials, such as smoke detectors, lensatic compasses, divers' watches, gas chromatographs, and radiography sources.
	6.4 § Material Storage Contains information on chemicals, oil, ordnance materials, and radiological materials storage including locations, amounts, how stored, incidents in handling or storing, and years of operation.

Over edited &
need your
comments

Table 1. Format and Description of Initial Assessment Study Report (Continued)

~~6.5~~ ~~Waste Disposal Operations~~ ~~Sites~~ WASTE DISPOSAL OPERATIONS
Contains information on sewage collection and treatment, landfill, incineration, sludge disposal, radiological materials disposal, and ordnance disposal operations. Included are dates of operation, amounts and types of materials disposed of, residues that remain, and any incidents or monitoring information.

edited, need
Comments
at WPC

at WPC (Keyboarding) 6.6. Sites

update at WPC 7.0 References

Tables:

Table 1. Constituents in Waste Oil, CLQ, 1981 - OK.

Table 2. Total THM Values -OK

Table 3. State & Fed Status of Sensitive Species - needs minor update

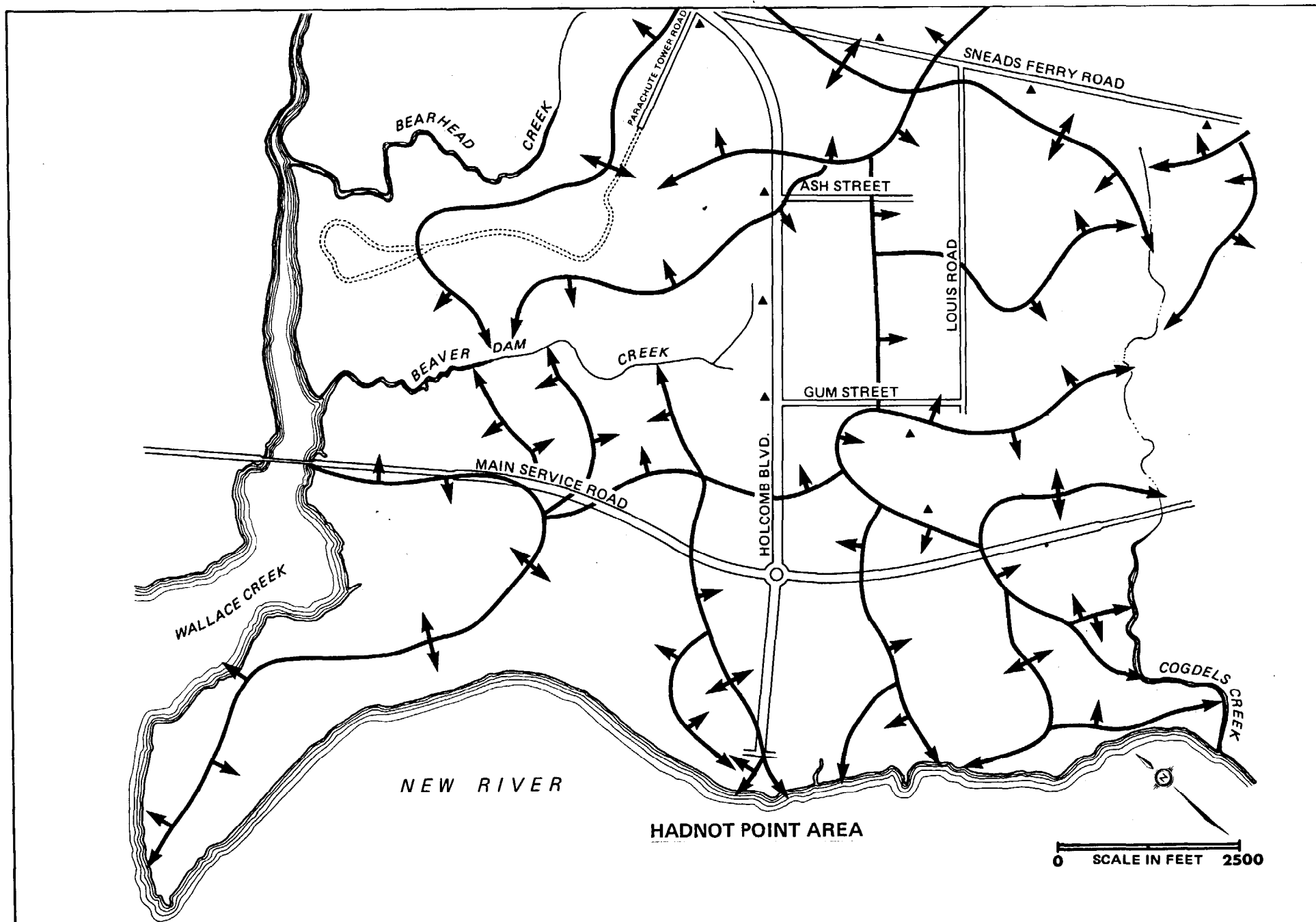
Table 4. Proposed Plant List ... needs minor update

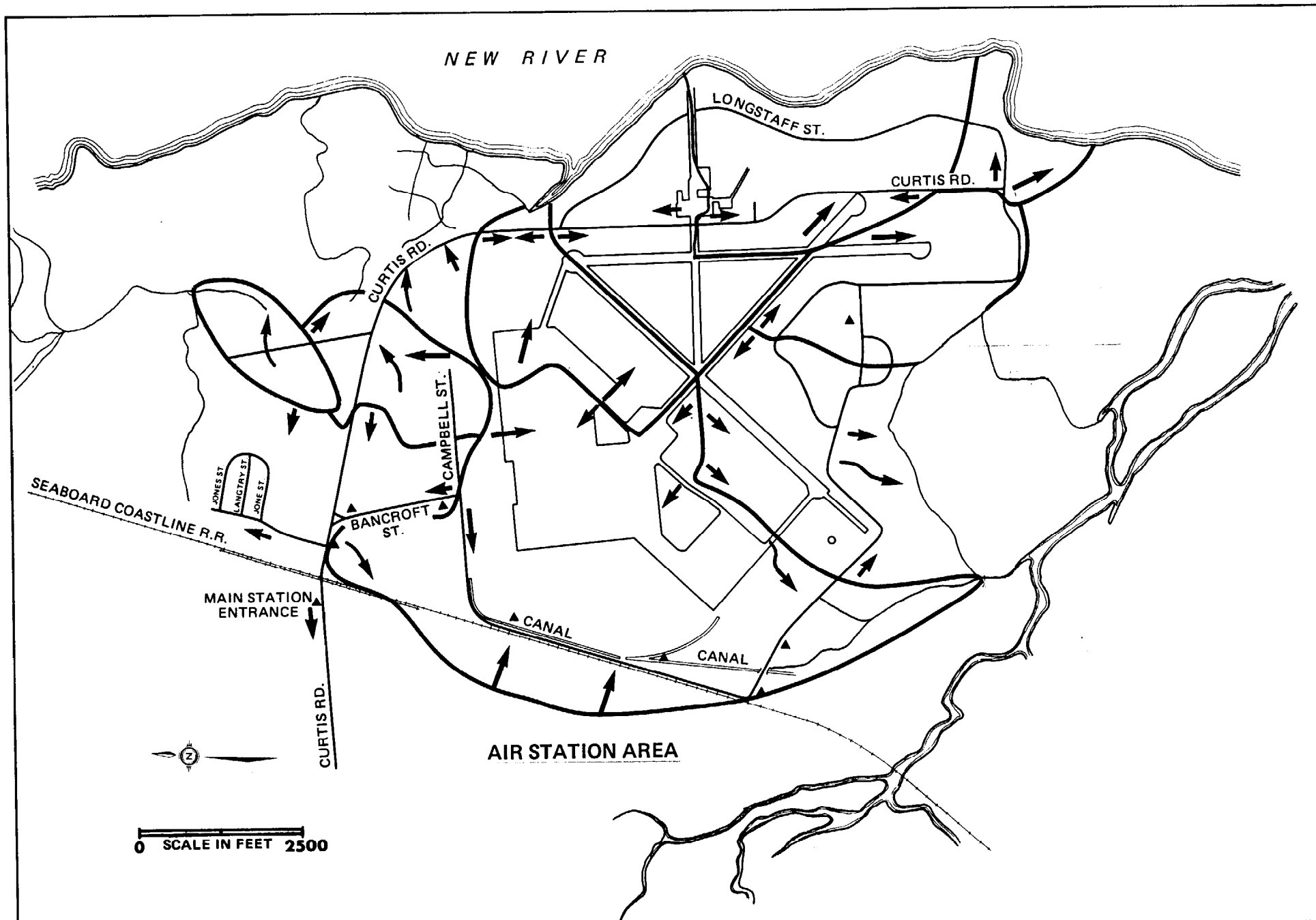
Table 5. Comments regarding occurrence ... minor update

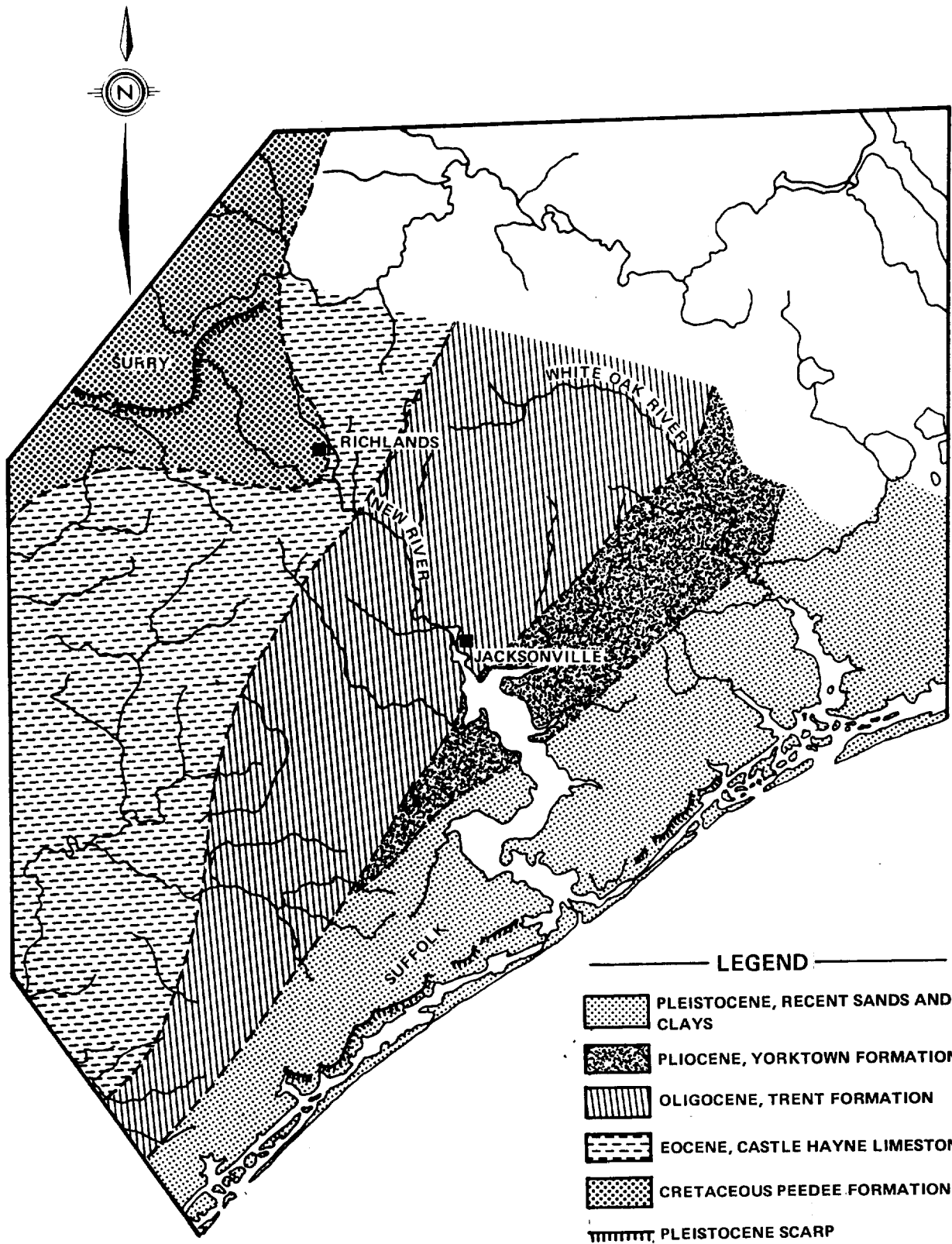
Figures:

Figure 1. Managed Wildlife Habitats ... - at graphics







Figure 2. Red cockaded woodpecker ... at graphics

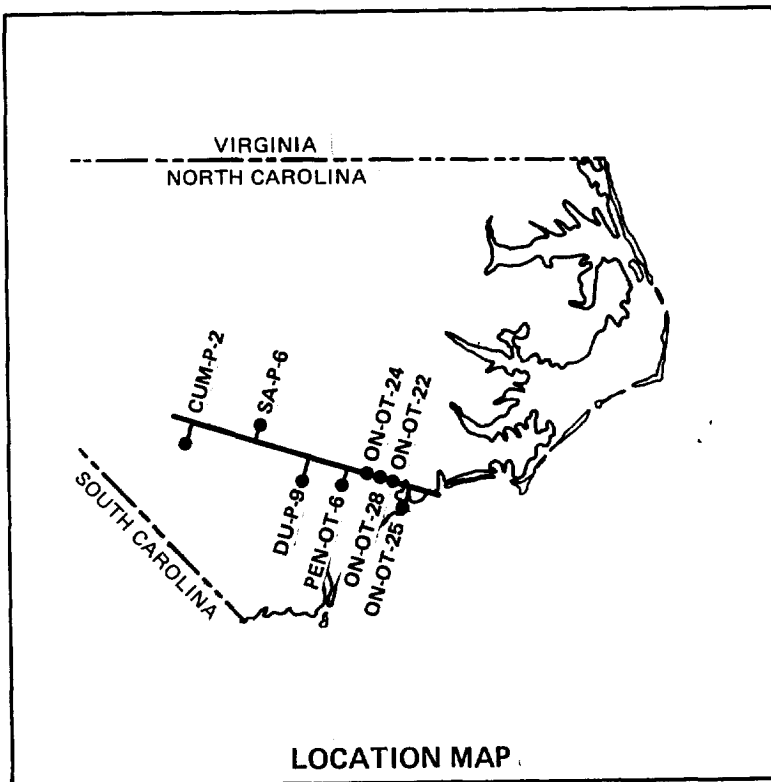
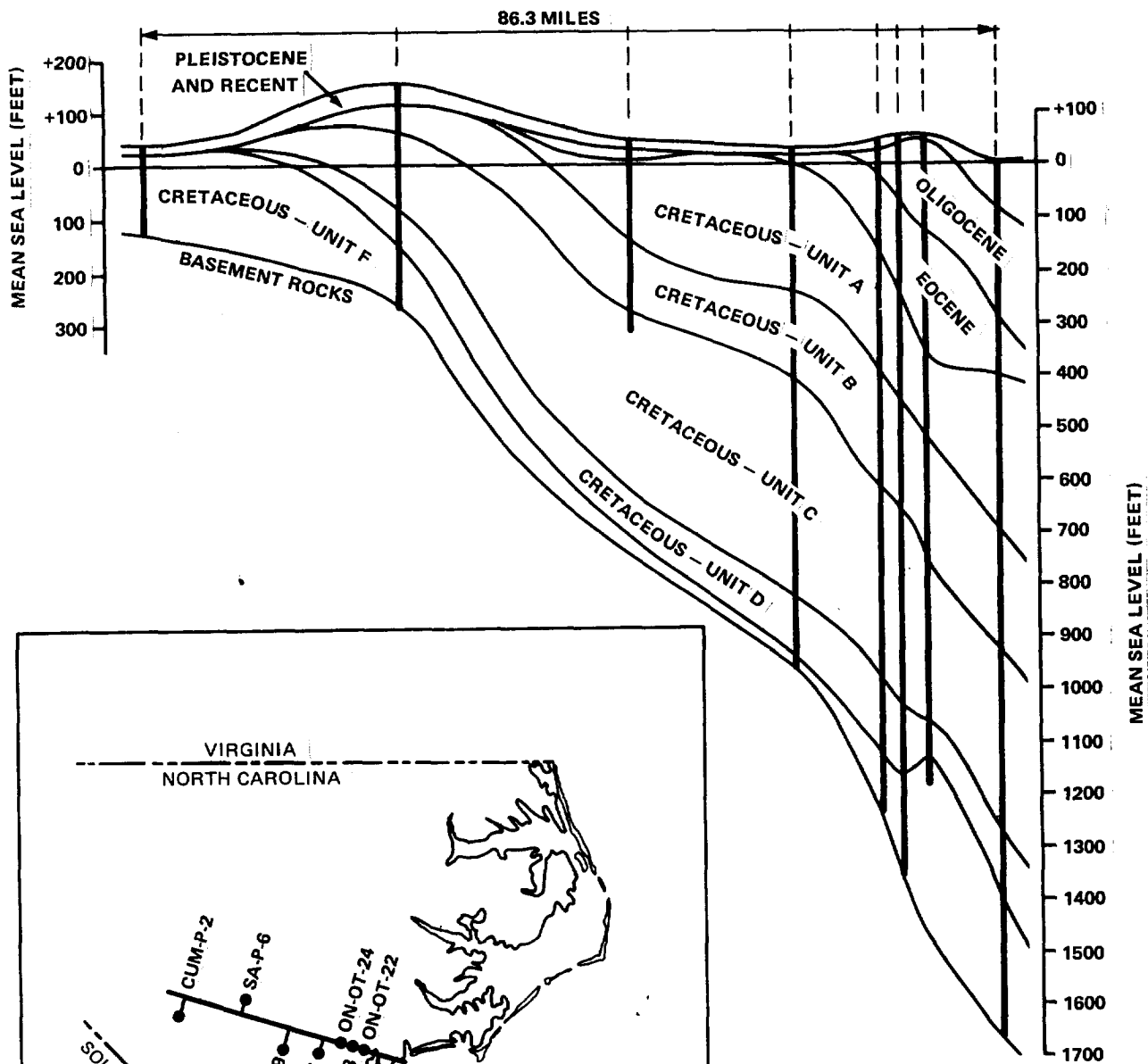


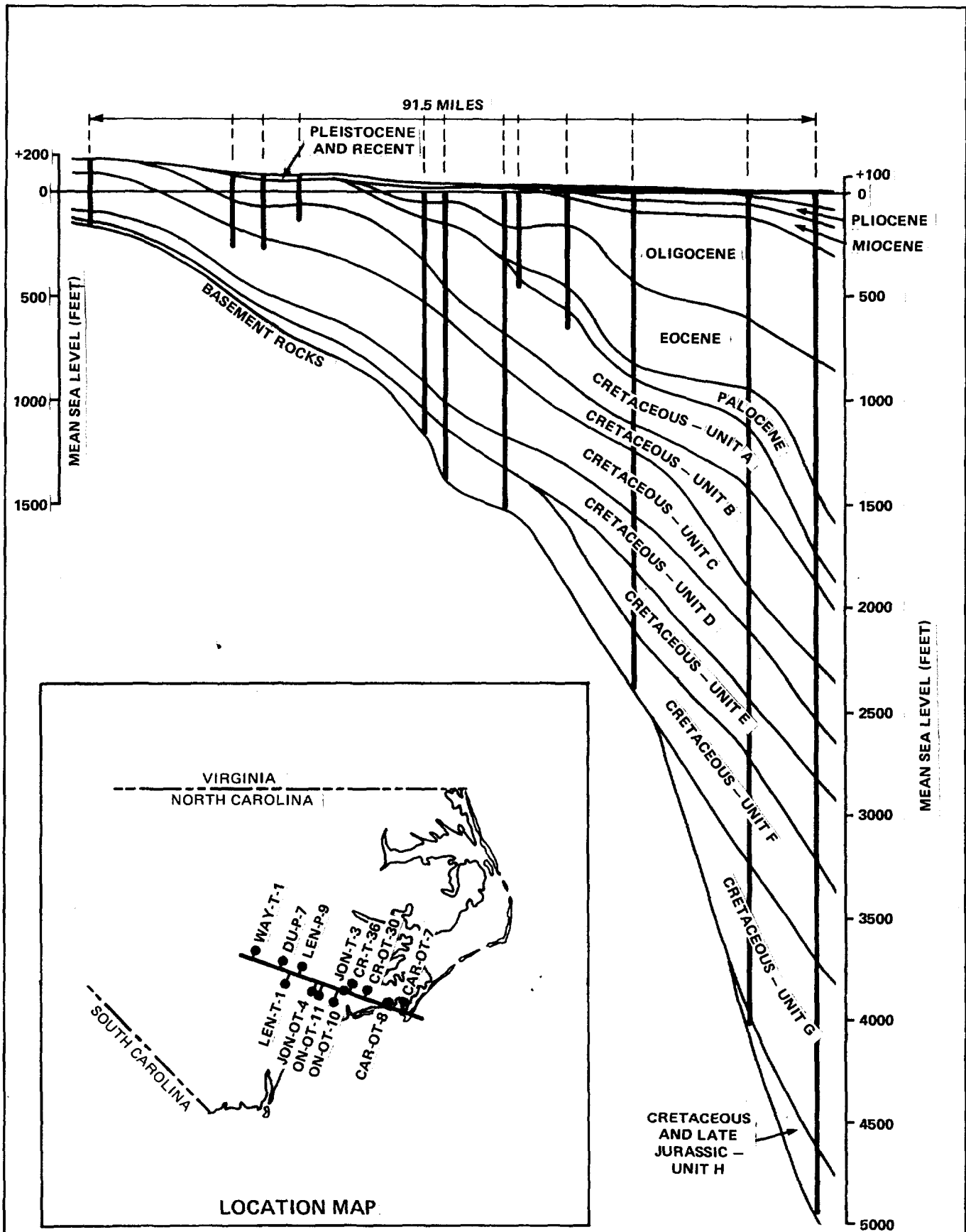




LEGEND

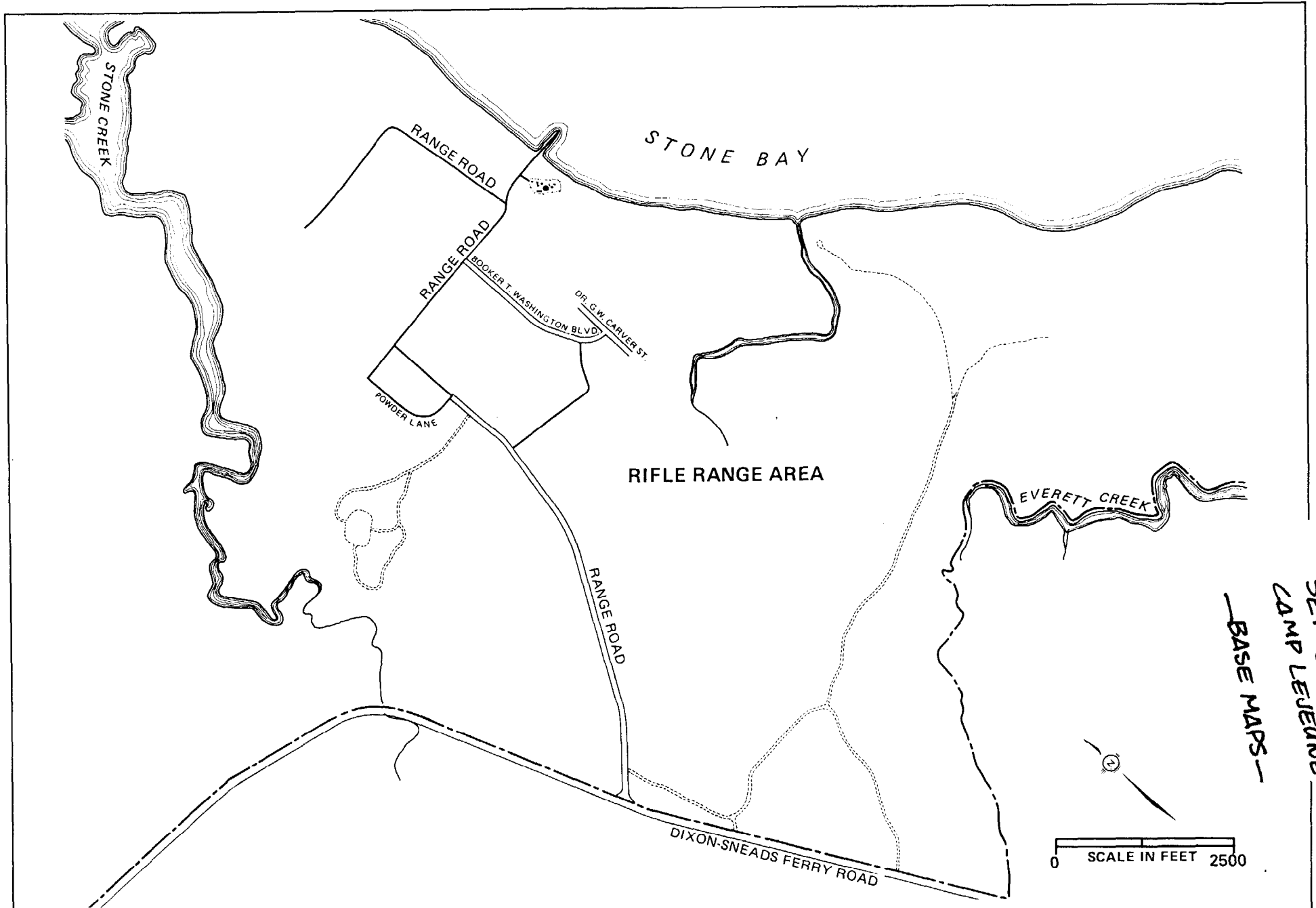
-  PLEISTOCENE, RECENT SANDS AND CLAYS
-  PLEISTOCENE, YORKTOWN FORMATION
-  OLIGOCENE, TRENT FORMATION
-  EOCENE, CASTLE HAYNE LIMESTONE
-  CRETACEOUS PEEDEE FORMATION
-  PLEISTOCENE SCARP



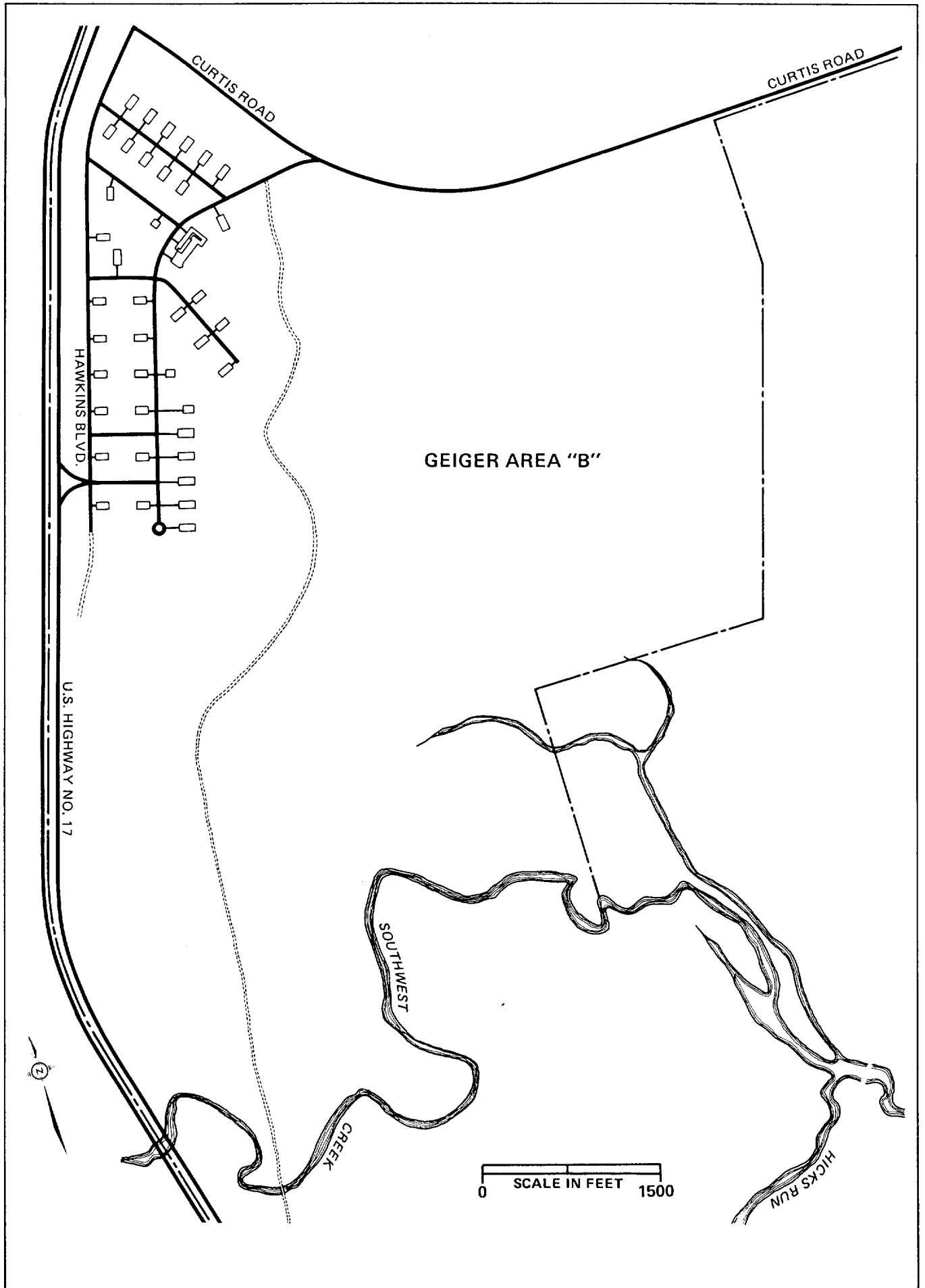


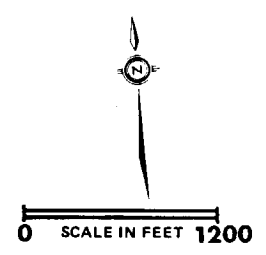
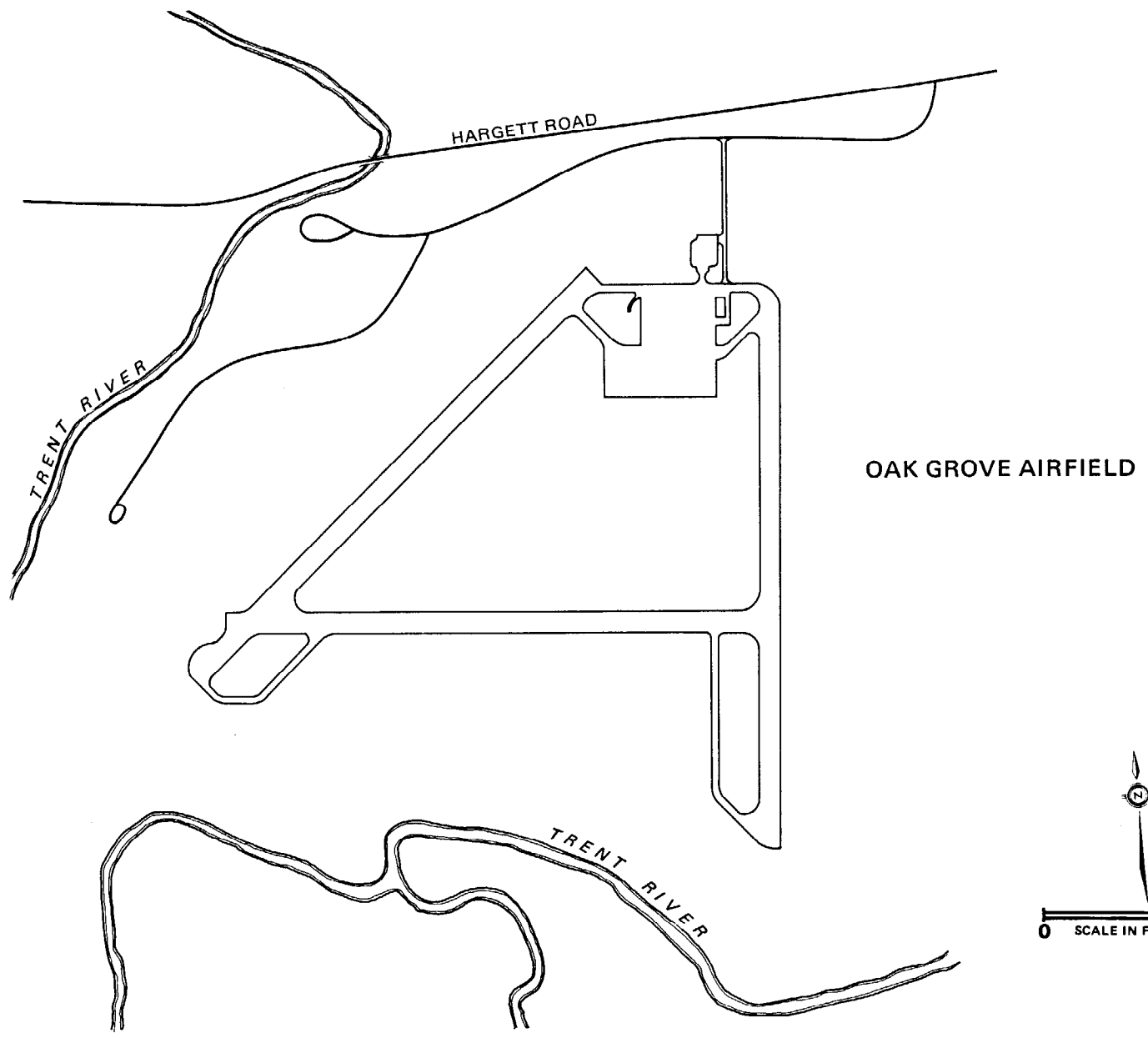
Camp Lijerme
May be Sites

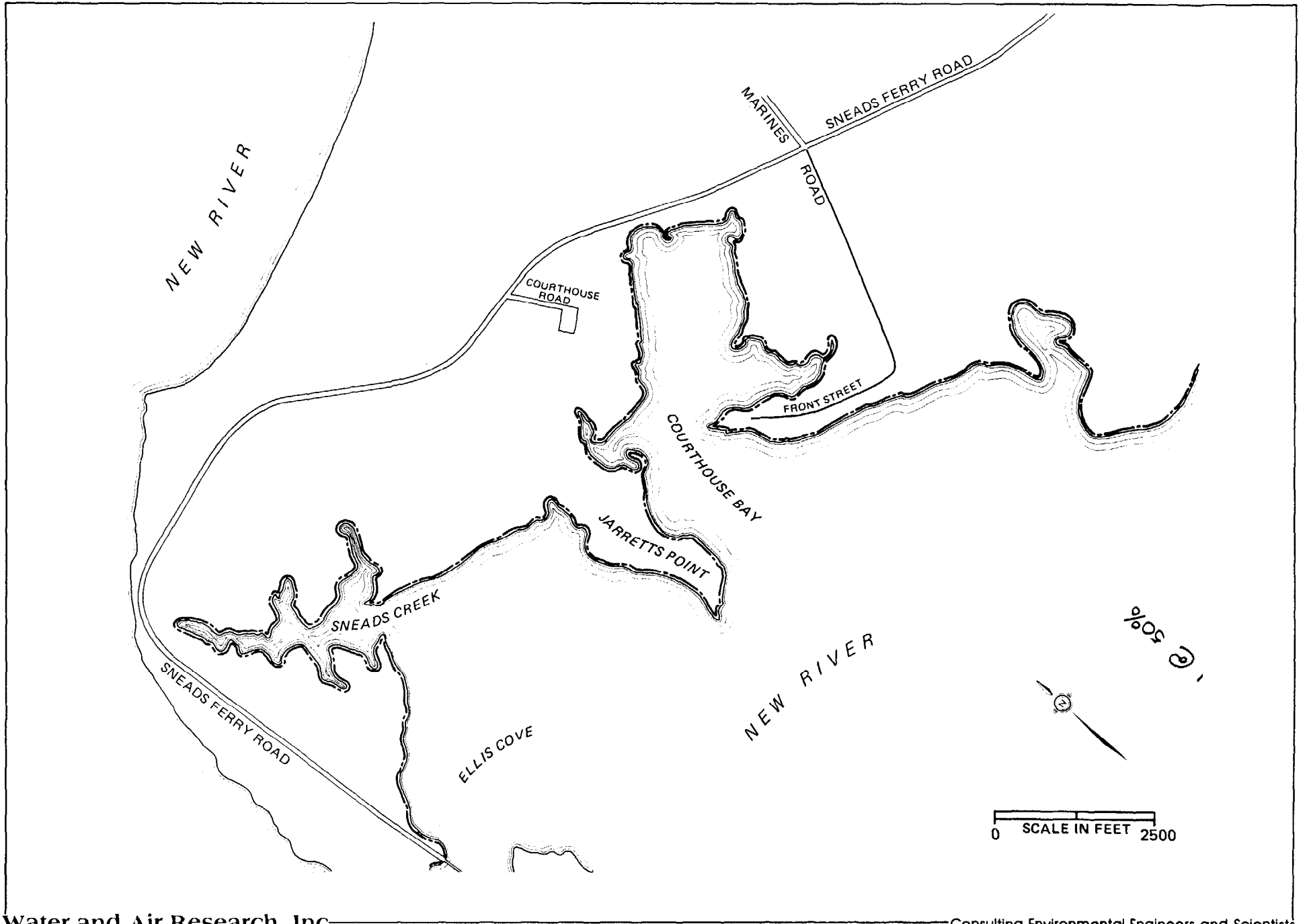
Site	Nearest Well	Coordinating Site
2	5009 Non-potable	22R - Air Sta.
30	no well in vicinity.	
33	104 - deep well A 100 - deep well B.	9B - Lijerme A 9B - " " "
34	no well in vicinity	
35		
42	BB220 BB221	15K 16K Court House Bay
50	no well in vicinity	
54	106 - Non Potable 203 " " "	10-07 10-N 5 Air Sta.
55	131 - Non potable 4140 - Non Potable Also see well 203, 106 non potable.	13-N 15-R Air Sta. Air Sta.
60	no well in vicinity -	
61	3506	25J - Air Sta.
76	601 602	13-Y 14-J - Hadant 14.
77	640	17M Franko Creek Area

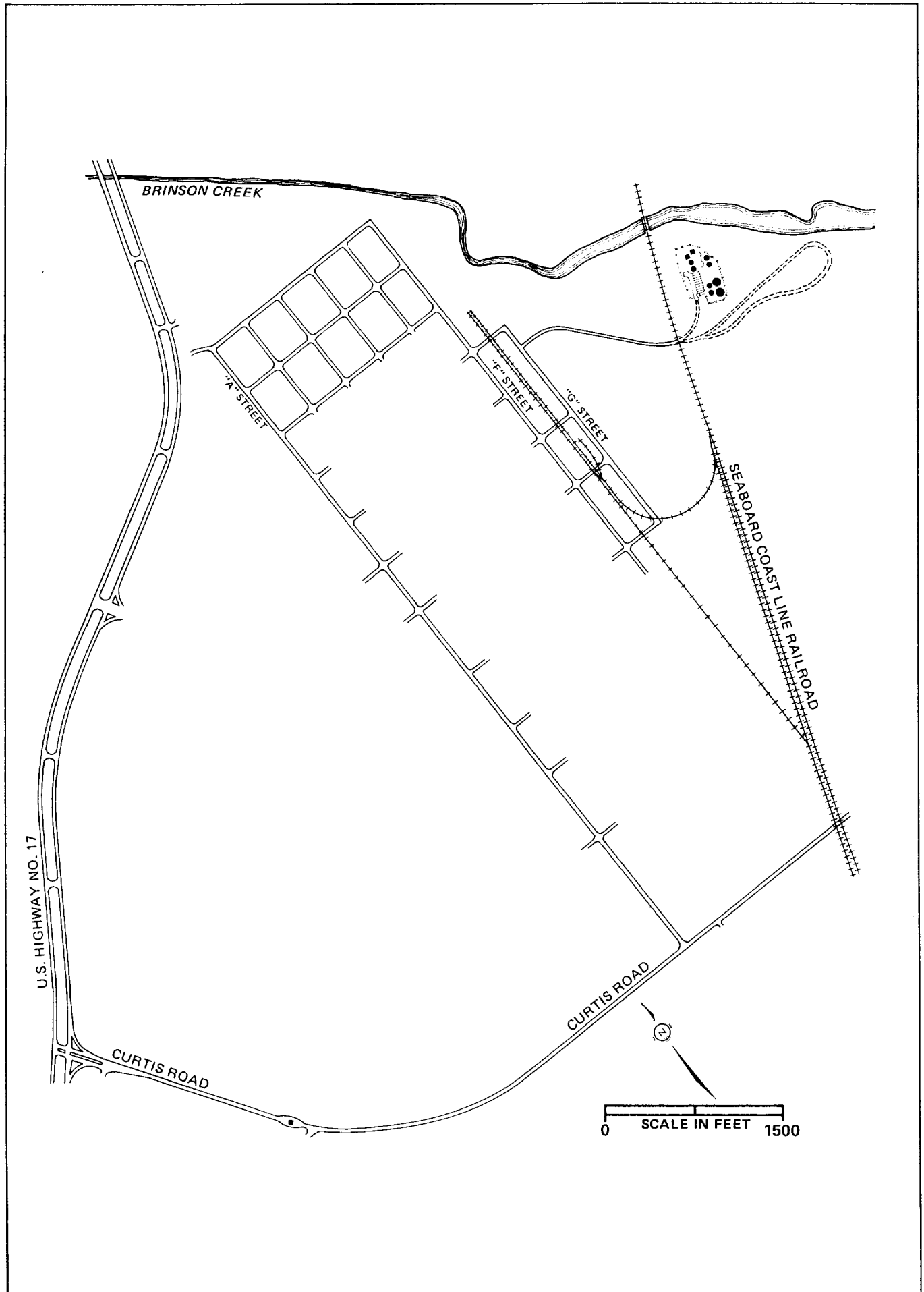


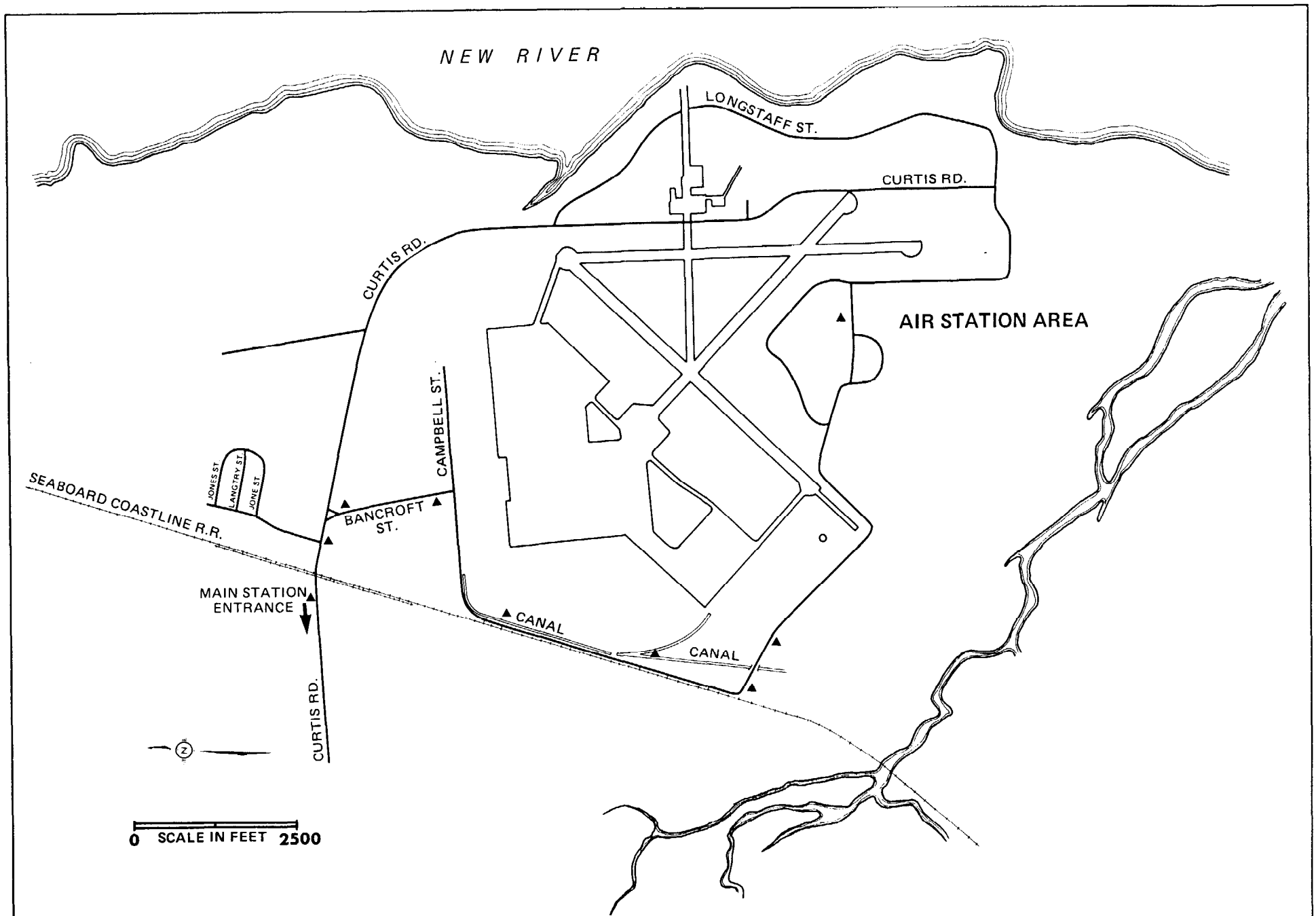
COMPLETE
SET OF
CAMP LEJEUNE
BASE MAPS

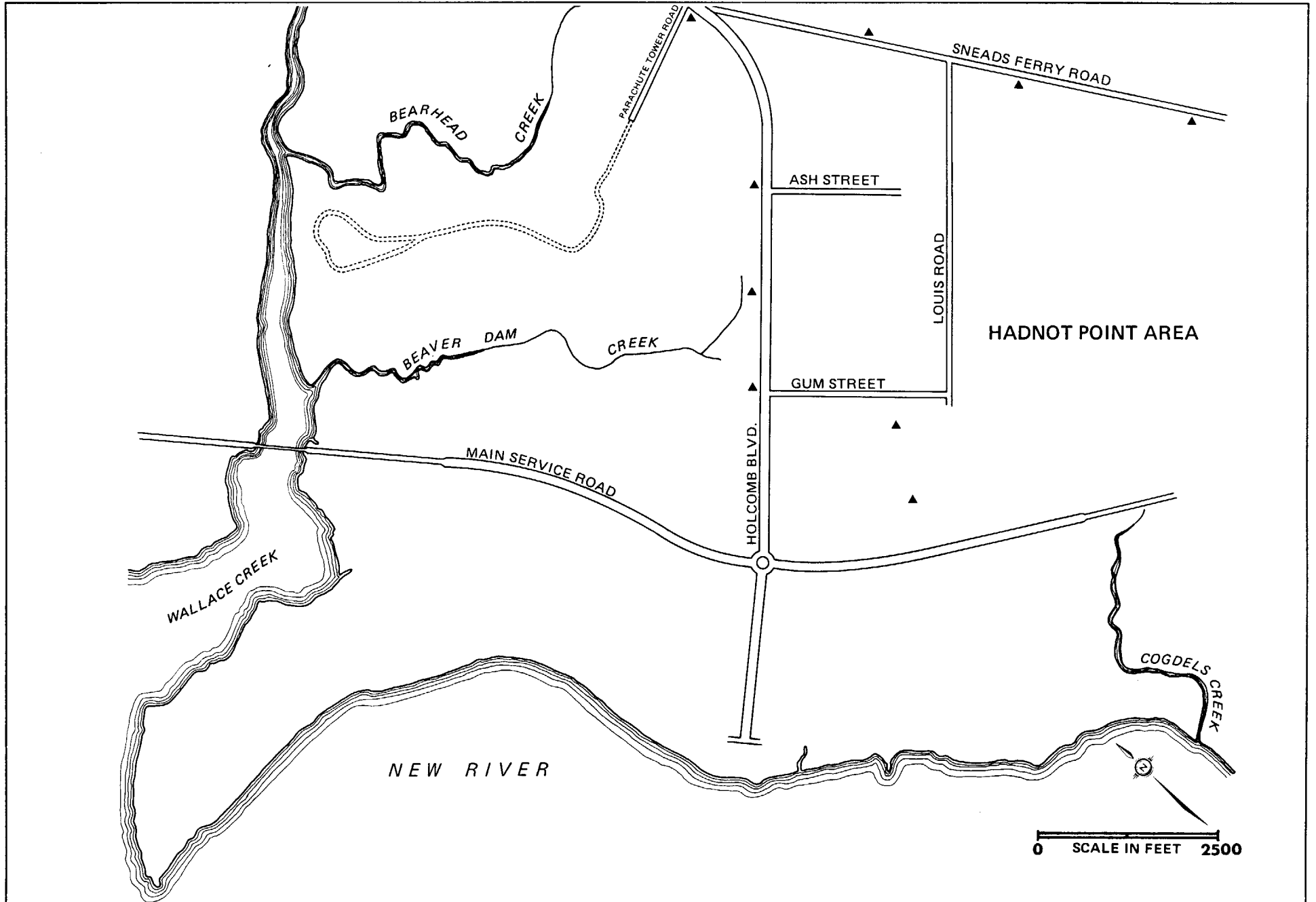


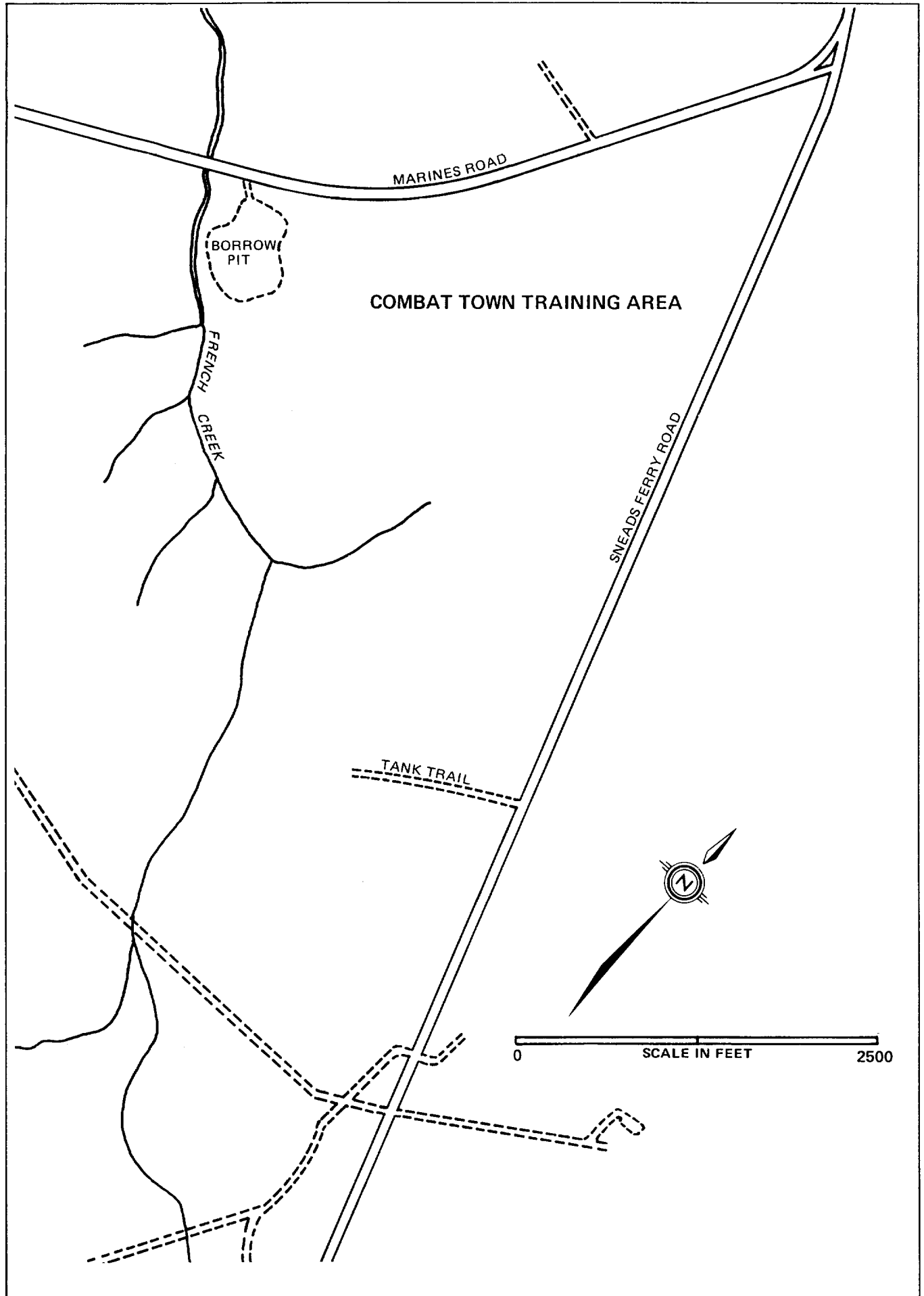


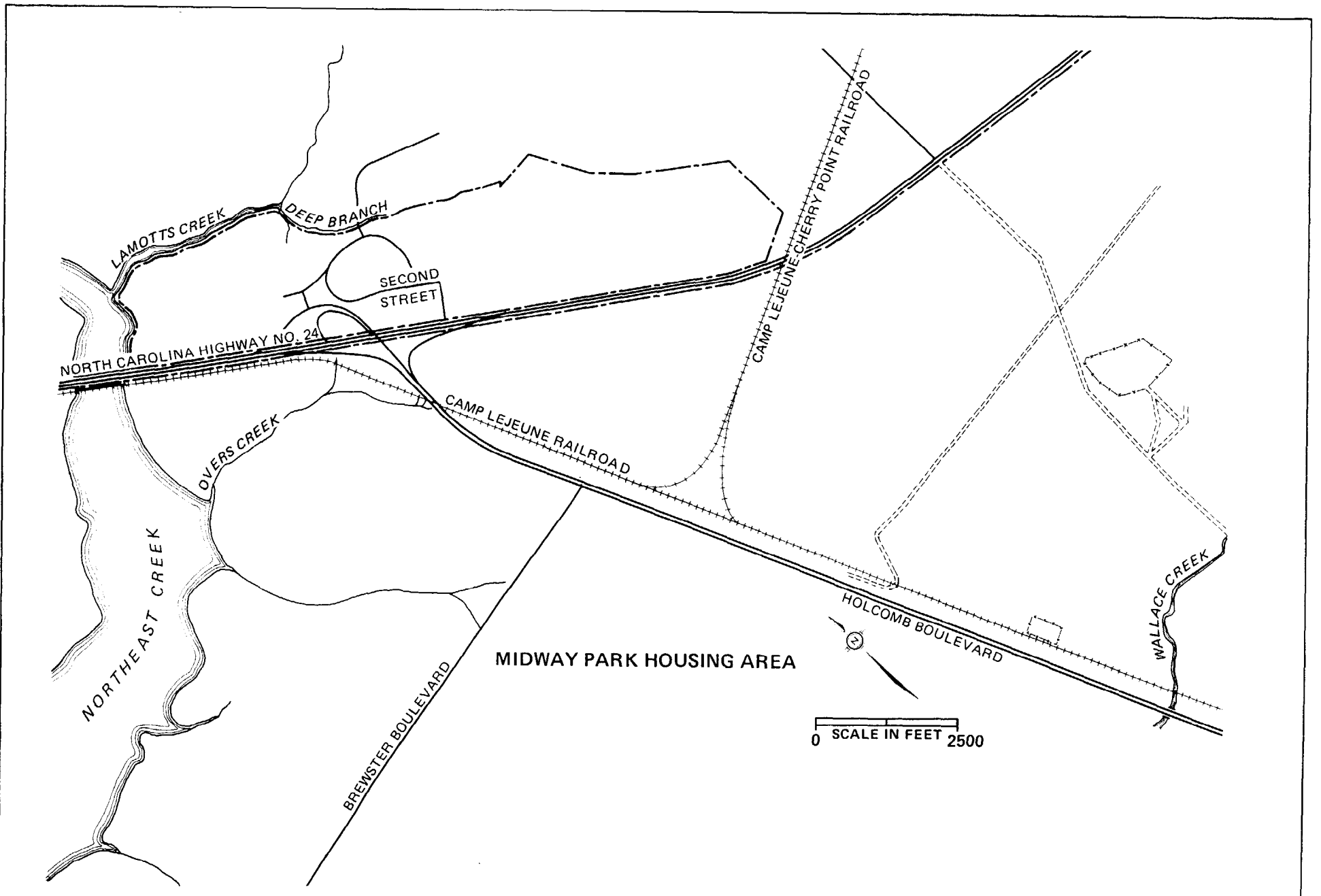


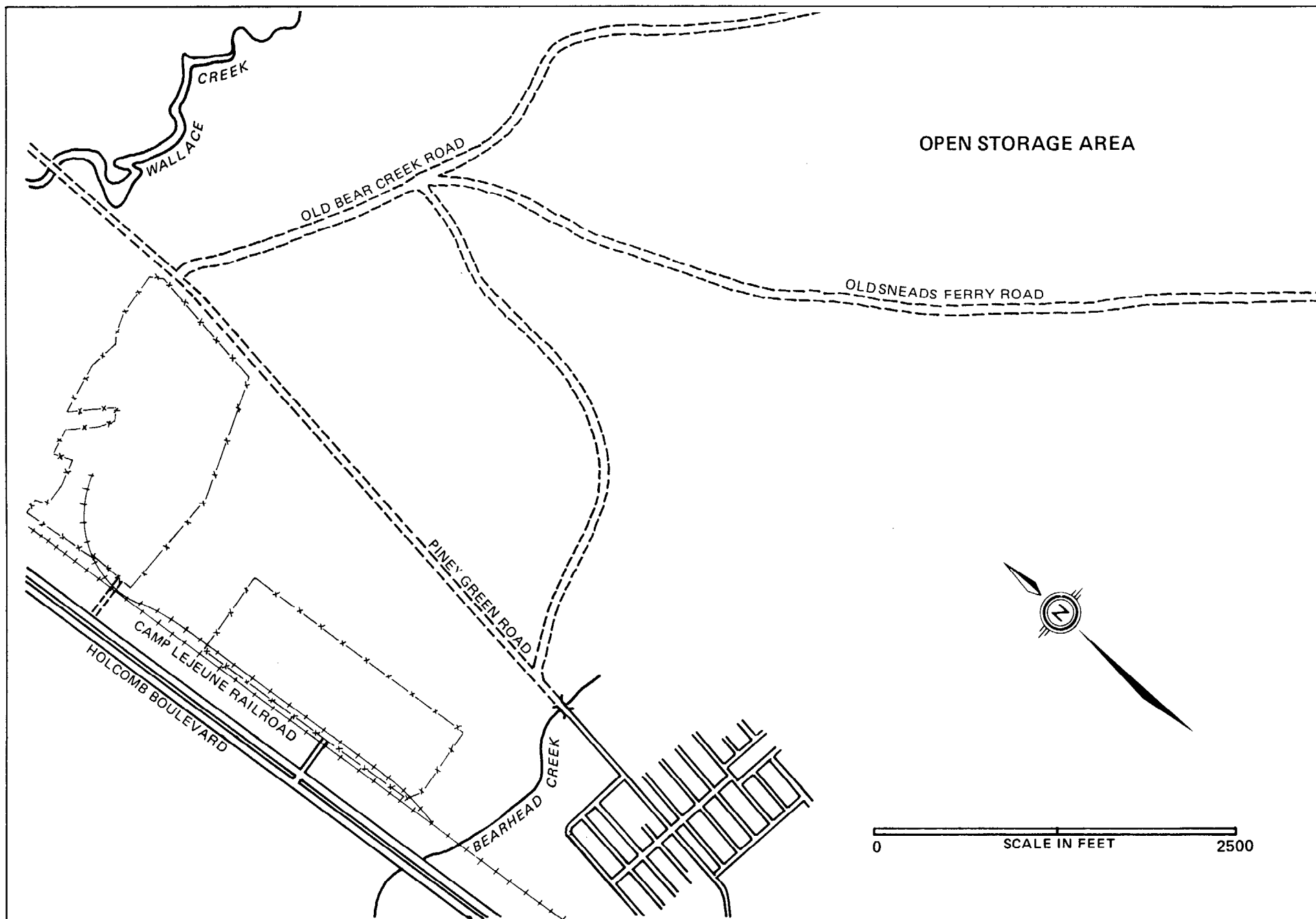


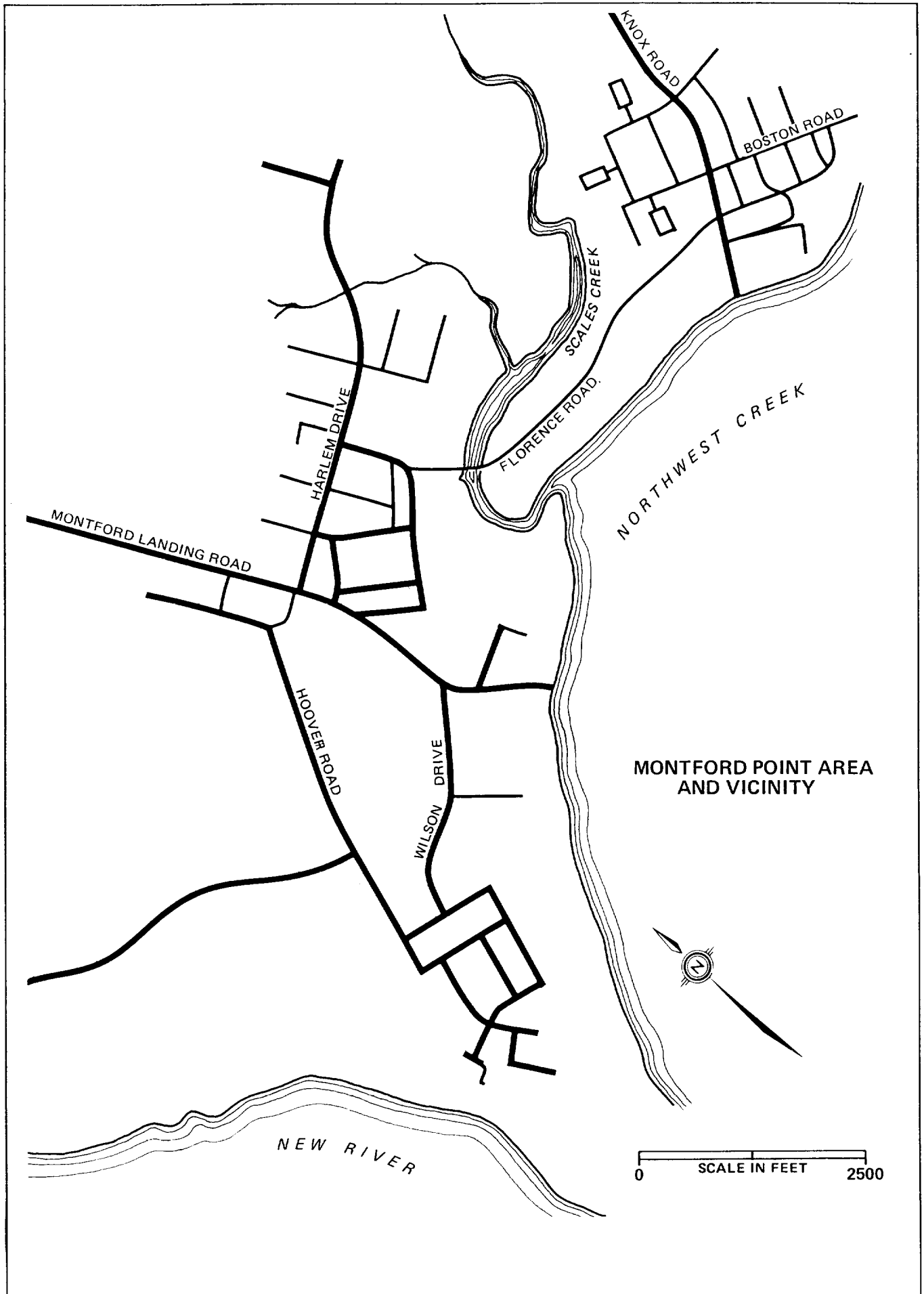












Camp Lejeune
1st Cal
Confirmed Sites

Site	- Nearest - Well #	Coordinates/Site
1	RR 227 (well T-1)	11-D - Rifle Range
4	TC-201 (well - H)	3B - Geigee - B.
3	638 (well -)	7D - Friend. Creek
11	635 (deep well # 35)	4K - Open storage
12	610, 636 (well 10+36)	2J 4J Open Storage
	651 (well	4G " "
14.	M-142 (well # - not ID)	12L - Montford Pt.
	M-629 (well # " ")	3L - Montford Point.
18	4006 (deep well)	D-11 - Midway Park
25	602 (deep well # 2)	14-D Walnut Pt
	634 (deep well # 34)	17-D. "
	642 (deep well)	18K. "
26	638 (deep well)	7D Walnut Pt.
27	601 (well # 1)	13G Walnut Pt
40	RR-45 (well - S)	1-D - Rifle Range
45	A-5 (well 9)	10-H " "
75	645 246 -	9K = Midway Park 99

Camp Lejeune

Wells = good confining beds.

~~HP-610(?)~~; HP-611 (20ft); HP-612 (32ft); HP-614 (23ft+); HP-615 (22ft); HP-616 (27ft); HP-617 (20ft+); HP-618 (52ft); HP-619 (~20ft); HP-620 (~20ft)**; HP-621 (23ft); HP-633 (31ft); HP-642 (35ft); MP-X (~20ft); MP-X₂ (18ft); MP-142 (26ft)**; PP-3 (33ft); MCAS-1256 (26ft); BB-220 (22ft); TC-104 (46ft); TC-325 (17ft); TC-502 (35ft); RR-45 (69ft); RR-227 (~20ft); RR-47 (~20ft); ~~RR-227 (~20ft)~~
→

Wells = little or no confinement

HP-610; HP-601 (9ft); HP-602 (∅); HP-603 (~5ft); HP-604 (4ft); HP-605 (?); HP-606* (?); HP-607 (8ft); HP-608; HP-609; HP-613 (6ft); HP-634 (< 10ft); HP-635 (~2ft); HP-636 (< 20ft); HP-655 (0ft); M-267 (6ft); M-627 (2ft); PP-# (6ft); MCAS-1255 (16ft); Bldg A-5 (10ft); BB-43 (10ft); BB-44 (0ft); TT-25 (9.5ft); Camp Geiger Well O (~12ft)**; TC-100 (0)**; TC-201 (0ft)**; TC-202 (0ft)**; TC-300 (~10ft)**; TC-504 (0ft)**; TC-600 (0ft)**; TC-604 (9ft); TC-700 (1ft); TC-901 (8ft)**; TC-1,000 (26)*; TC-1,001 (13ft); RR-46 ft (10ft) Not in use; Beach: BA-109 (0ft)**; BA-110 (0ft)**; BA-112 (0ft) (Beach wells not used); M-243 (0ft)**; M-244 (~12ft)**; Midway PR-4006 (12ft)*; Paradise Point -2322 (12ft)**;

** Very shallow. May tap Yorktown or Quaternary.

* Screened above confining bed.

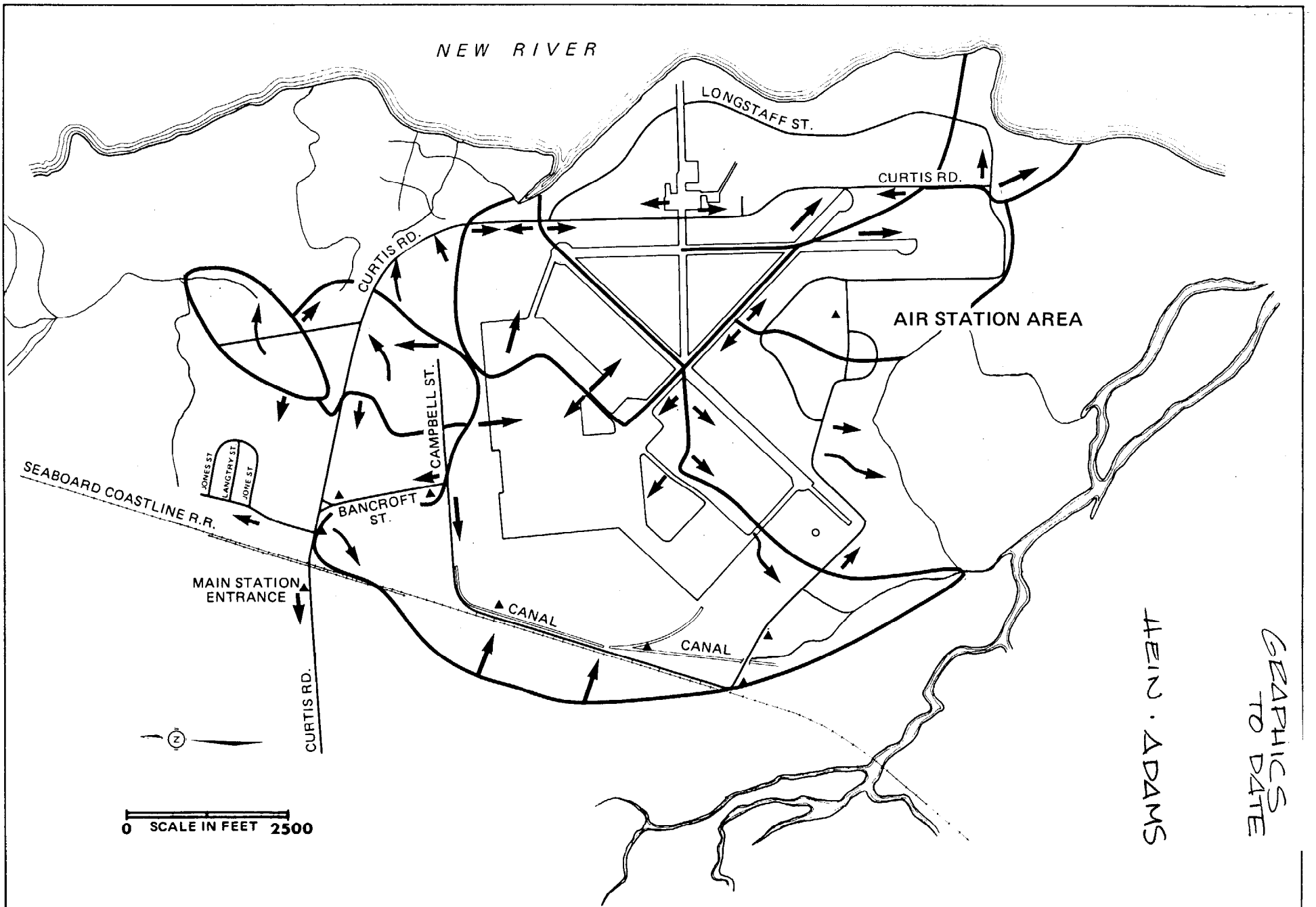
Wells \approx good confining beds, cont.

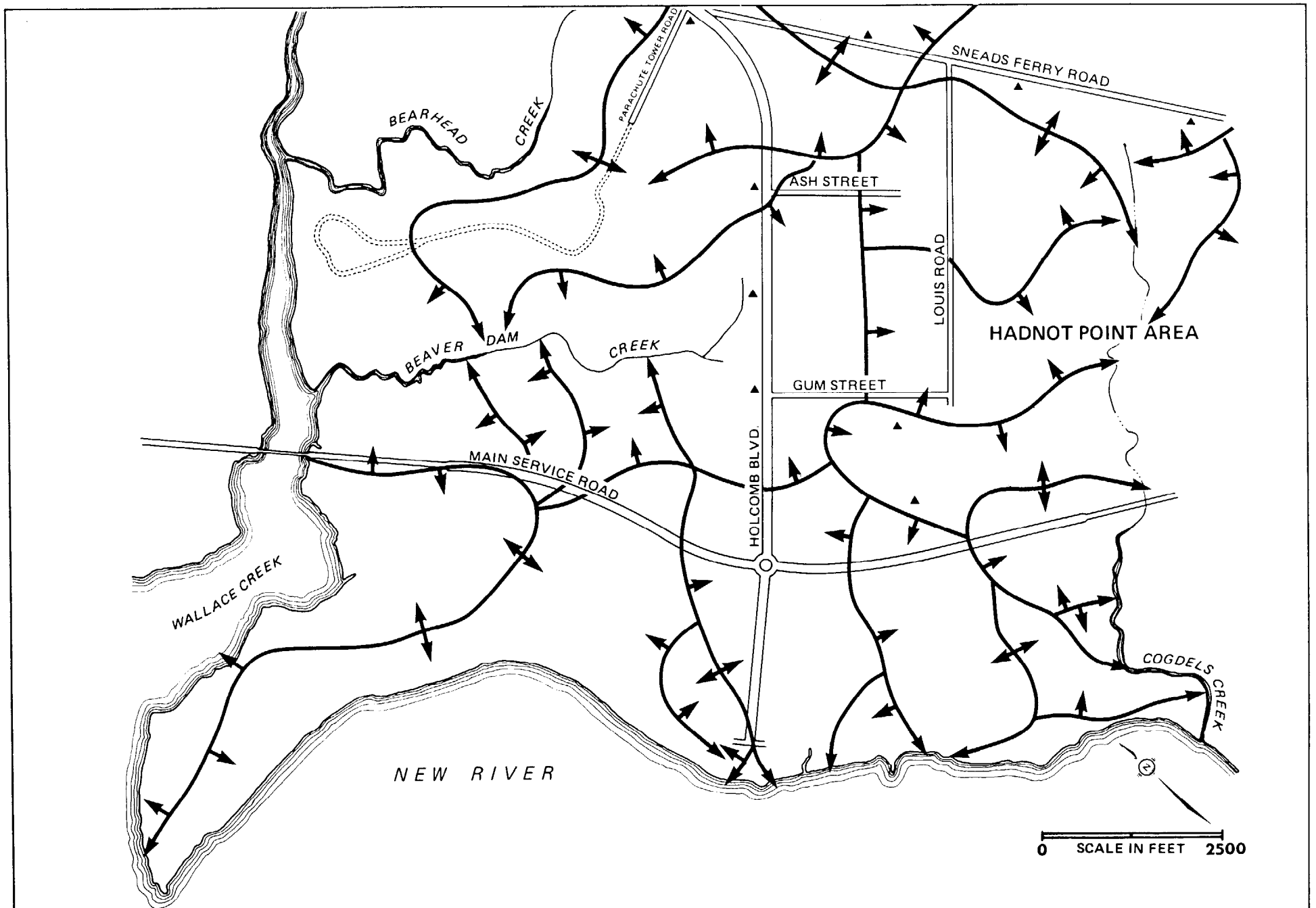
M-141 (17 ft)** ; M-143 (23 ft)** ; M-628 (~18 ft)** ;

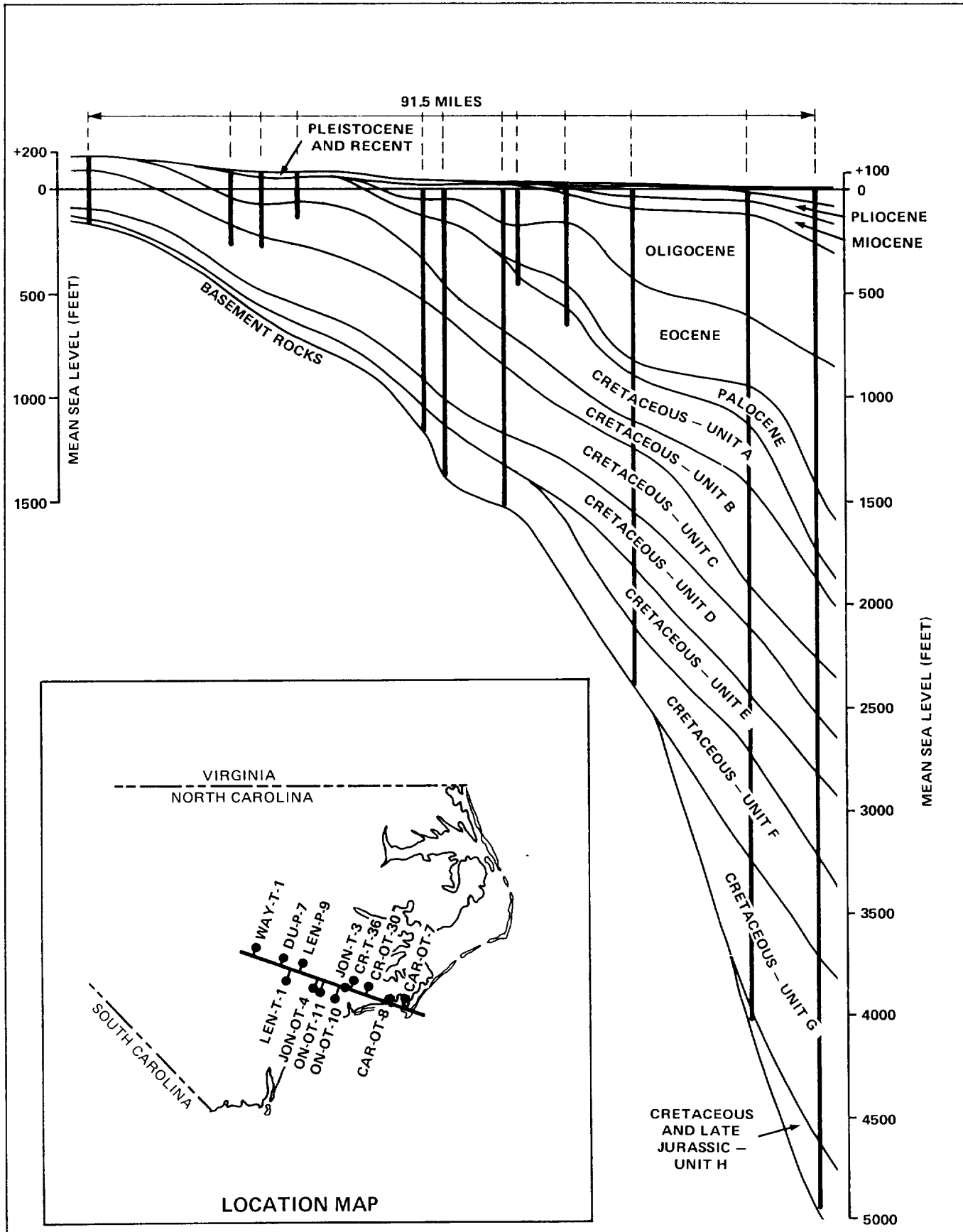
Midway PR-4006 (~19 ft)** ; CAMP KNOX CEC#2 (20 ft+)** ;

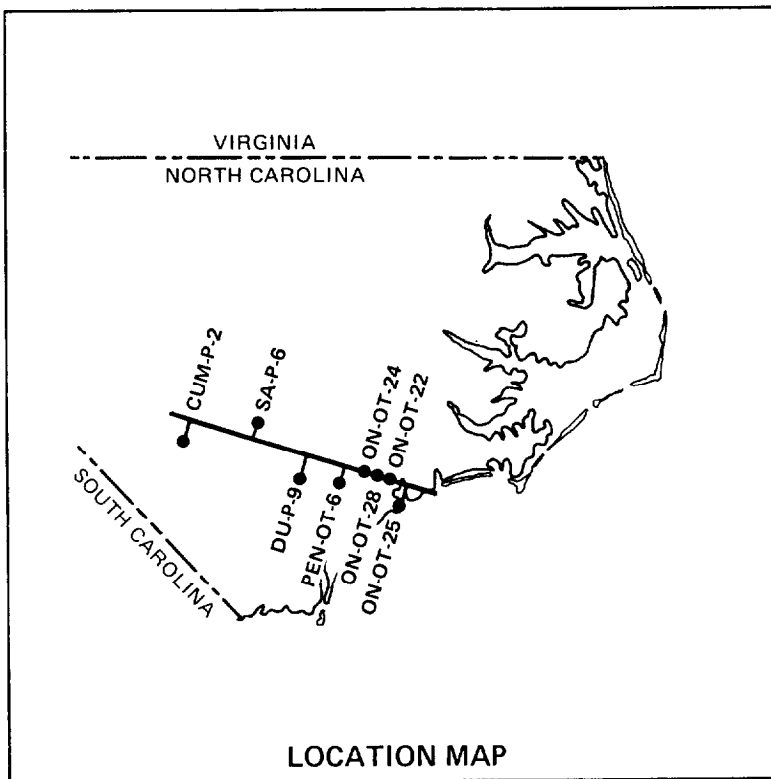
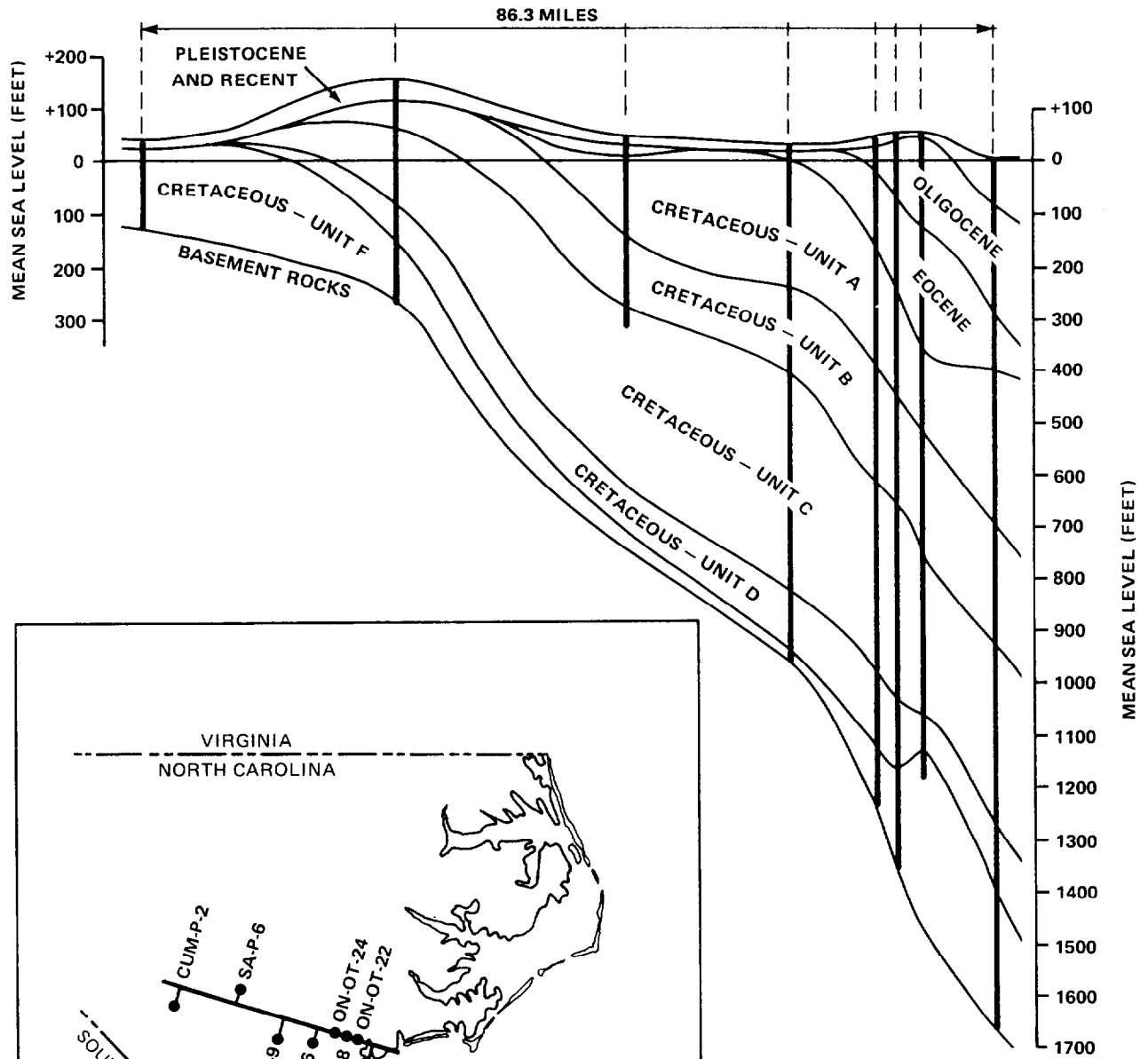
* Screened above confining bed

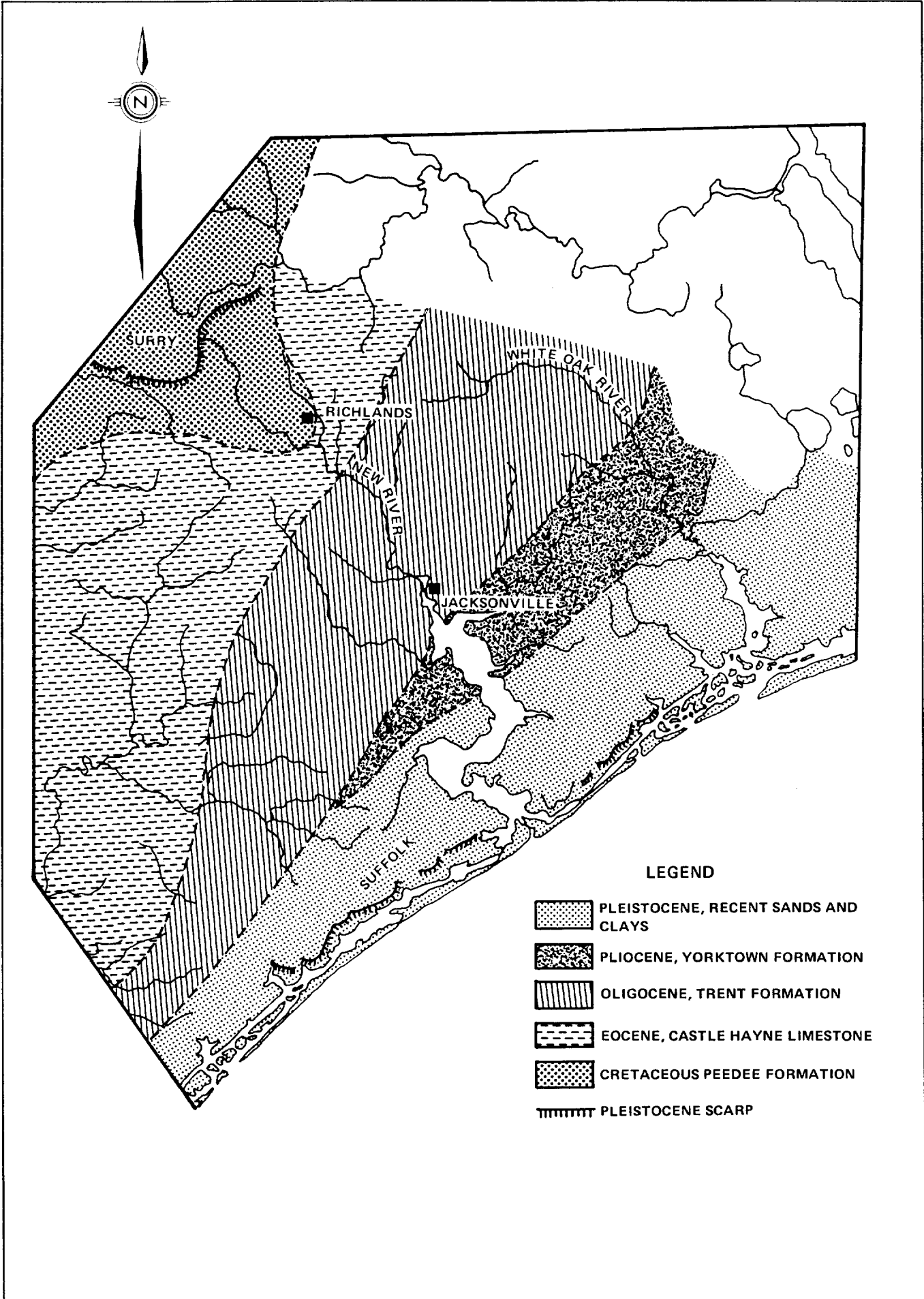
** Shallow, may tap Yorktown or Quaternary.

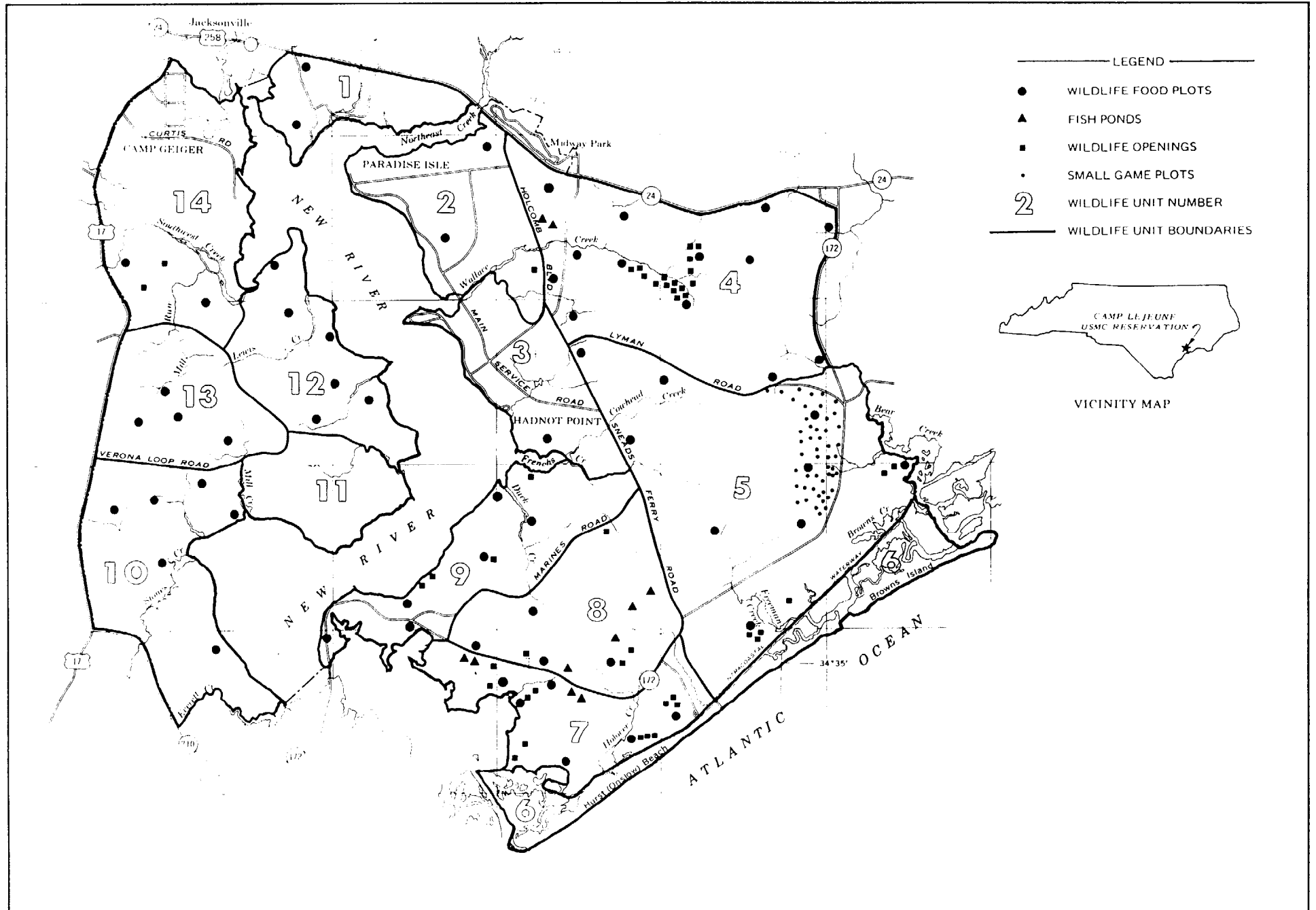






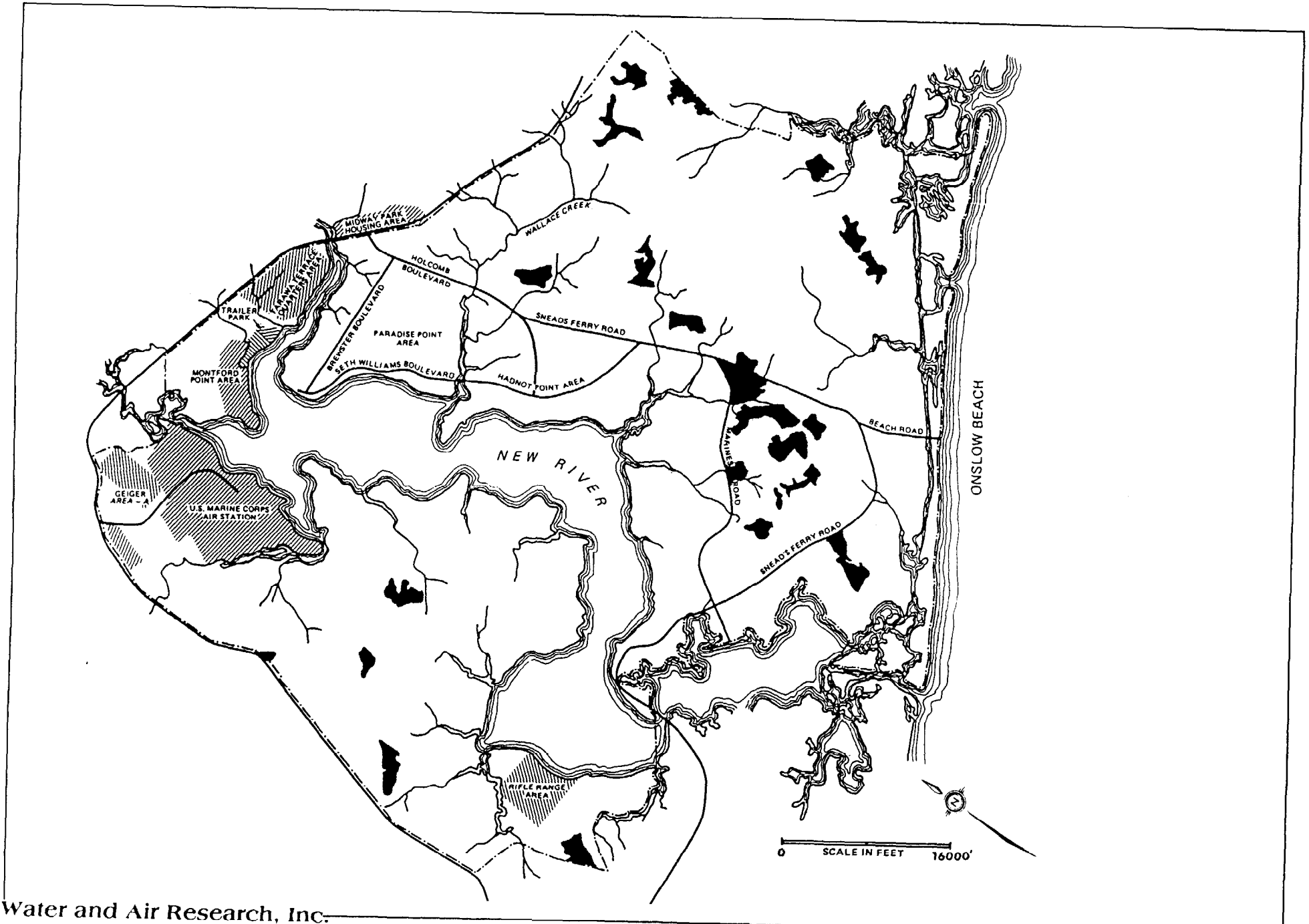


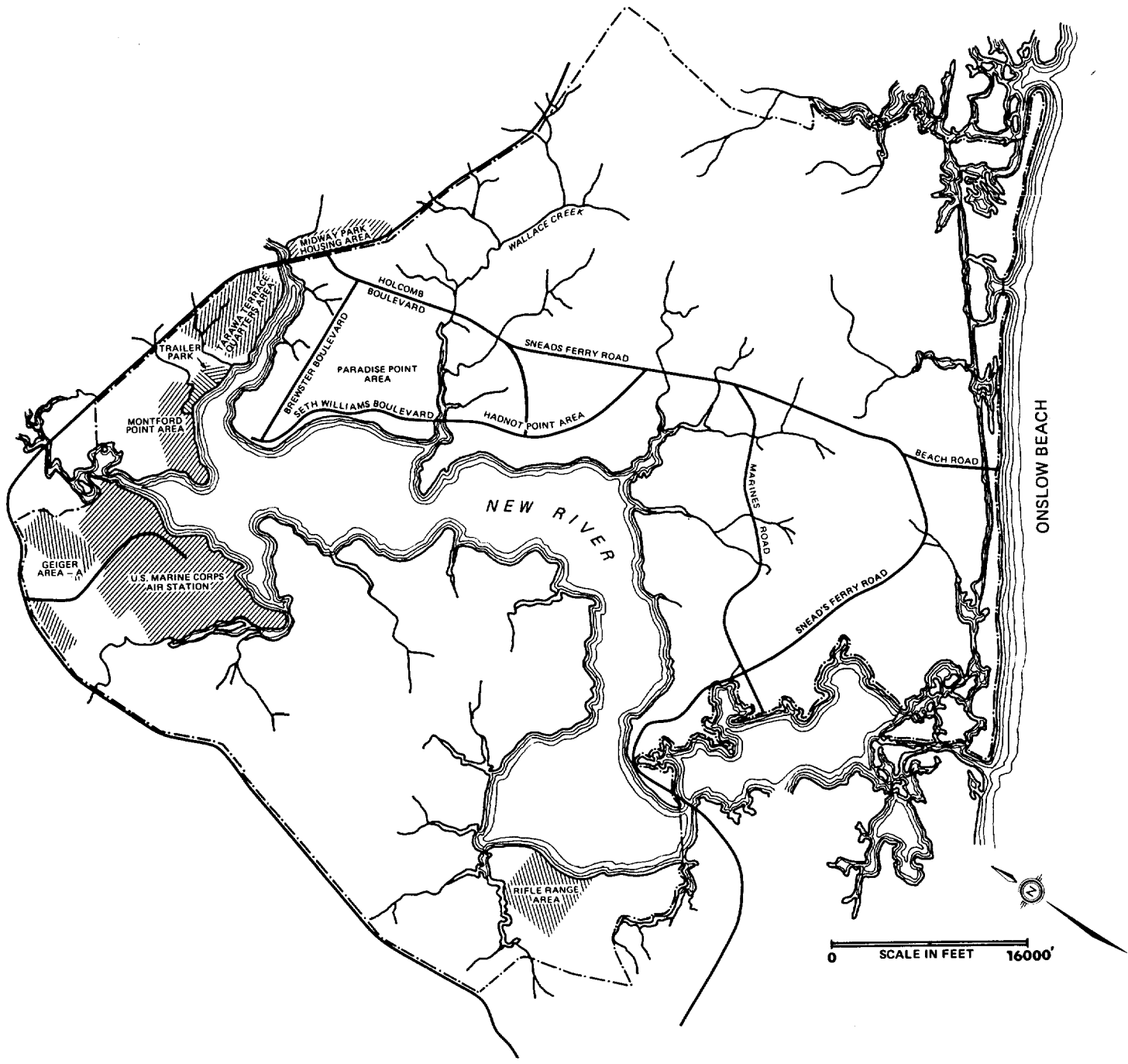




- LEGEND —————
- WILDLIFE FOOD PLOTS
 - ▲ FISH PONDS
 - WILDLIFE OPENINGS
 - SMALL GAME PLOTS
 - 2 WILDLIFE UNIT NUMBER
 - WILDLIFE UNIT BOUNDARIES







0 SCALE IN FEET 16000'



CONFIRMATION STUDY RANKING SYSTEM

Background

With the passage of "Superfund," or CERCLA, in December 1980, a need for a systematic approach towards the clean-up of old hazardous waste disposal sites became apparent. The Department of Defense (DOD), anticipating "Superfund," established the Installation Restoration (IR) program. The Navy's section of this program is the Navy Assessment and Control of Installation Pollutants (NACIP) program.

This program consists of four phases: (1) Initial Assessment Study (IAS); (2) Confirmation; (3) Control Technology Development (if needed); and (4) Corrective Measures. One of the most important steps in the program is the decision to go from the IAS, based on record searches, interviews, and minimal sampling, to the Confirmation Study, which involves extensive sampling. Another aspect of proceeding to Confirmation from the IAS is the IR program requirement to "develop and maintain a priority listing of contaminated installations and facilities for remedial action" (DEQPPM 81-5, 11 December 1981). As a result, a two-step decision process has been designed specifically for the NACIP program.

Description

The first step is a "yes-no" flowchart (figure 1) based on easily determined facts found during the IAS. These facts include type of waste, type of containment (spills, ponds, dumps, barrels, etc.), and hydrogeology. The flowchart tells whether to go to the Confirmation phase; to consider immediate mitigating action, such as restricting access to the site; or to do nothing if the site is basically innocuous. If the flowchart indicates that the Confirmation phase should be implemented, the user proceeds to step two.

In step two, the site is given a numerical ranking by going through the Confirmation Study Rating (CSR) Model (figure 2 and table 1). This ranking is also based on information obtained during the IAS and is the "priority listing" of sites. The model is based on the system used by the Air Force which in turn is based on a model developed for EPA by JRB Associates.

As with these previous models, the CSR Model assesses the different characteristics of each hazardous waste site including: areas of potential impact or possible receptors of contamination, pathways that the contamination may take to reach the receptors, and waste characteristics and containment. Each of these categories contains several weighted rating factors. These are then used to calculate the overall hazard rating.

The receptors rating is based on the JRB Model and is calculated by scoring each factor, multiplying by a weighting constant, and adding the weighted scores to obtain a total score for the receptors category.

The pathways rating is taken from the Air Force Hazard Assessment Rating Methodology (HARM) model. This rating is based on direct evidence of contamination migration or on the one of three pathways with the highest contamination migration potential. If direct evidence of contamination exists, the pathways category is given a subscore of 1. If no evidence is found, the highest score from three possible pathways is used. These pathways are surface water migration, flooding, and ground water migration.

The waste characteristics category is similar in format to the receptors category. The waste characteristics rating is obtained by scoring each factor, multiplying by a weighting constant, then adding or multiplying these weighted factors as indicated to obtain a total score for the category.

The CSR Model differs from the other two models mentioned due to differences in the Waste Characteristics section, and minor changes in the other sections. The major difference, however, lies in the final scoring of the sites. These previous models have based their rankings on the idea that factors, such as pathways of possible migration, location of receptors, and waste characteristics are additive as indicated by the formula:

$$U_{\text{site}} = \sum_{i=1}^n [k_i U_i(x_i)]$$

$$= U_p + U_r + U_w$$

U_i = the Rating factor (1.0 is the worst, 0.0 is the best condition)

U_p = the total Pathways factor

U_r = the total Receptors factor

U_w = the total Waste Characteristics factor

k = weighing constant = 1 in this instance

U_{site} = the final score or rating of the site

This additive model is only theoretically correct if the factors considered (Pathways, Receptors, and Waste Characteristics) are completely independent of one another. However, these factors are not independent of each other. For example, an innocuous waste such as paper (low U_w) may be found in an area that has a hydrogeology conducive to migration (high U_p) and be close to a large population (high U_r). If this site somehow slips into the above rating model, it will have a high priority due to the U_p and U_r .

The CSR Model uses instead a multiplicative approach as indicated by the formula:

$$U_{\text{site}} = \frac{1}{K} \left[\prod_{i=1}^n (K k_i (1 - U_i) + 1) - 1 \right]$$

$$= (U_r)(U_p)(U_w)$$

This formula reflects the dependent nature of the factors involved. These formulas have been included to show the mathematical approach to the rating problem. The multiplicative approach is rescaled from 0 to 100 and used in the CSR Model as:

$$U_{\text{site}} = 100 (U_r)(U_p)(U_w)$$

By using the multiplicative model, sites with a low Ur, Up, or Uw, such as the site previously mentioned, will have a lower rating than would be expected using an additive model, such as the JRB Model.

Use of the System

All sites found will be put through the Confirmation Study Ranking Flowchart (figure 1). This flowchart will tell the user to go to the CSR Model if further study is required.

The CSR Model is found in figure 2 and table 1. Figure 2 contains the worksheets for the model and is divided into subsections on the rating categories: I is Receptors, II is Pathways, III is Waste Characteristics, and IV is Waste Management and Final Score. Table 1 contains the data needed or information required to fill out the worksheets in figure 2 and is divided into the same subsections.

Appendix A illustrates the use of the CSR Model by showing the results of two sites.

The Confirmation Study Ranking System was designed to be used after no or limited sampling. The existing EPA models, including the Mitre and the JRB Models, were designed to rank sites after a NACIP confirmation type investigation. Because the purpose of the System is to rank sites before a full field investigation of sampling is done, this model differs from the models EPA has used. Ranking sites before the expensive Phase II is done will enable the Navy to investigate as soon as possible those sites that pose the greatest potential hazard.

References

References used in the development of the Confirmation Study Rating Model include:

Lindenberg, B., et al., Air Force Hazardous Risk Assessment Methodology (HARM) Model.

JRB Associates, Rating Methodology Model.

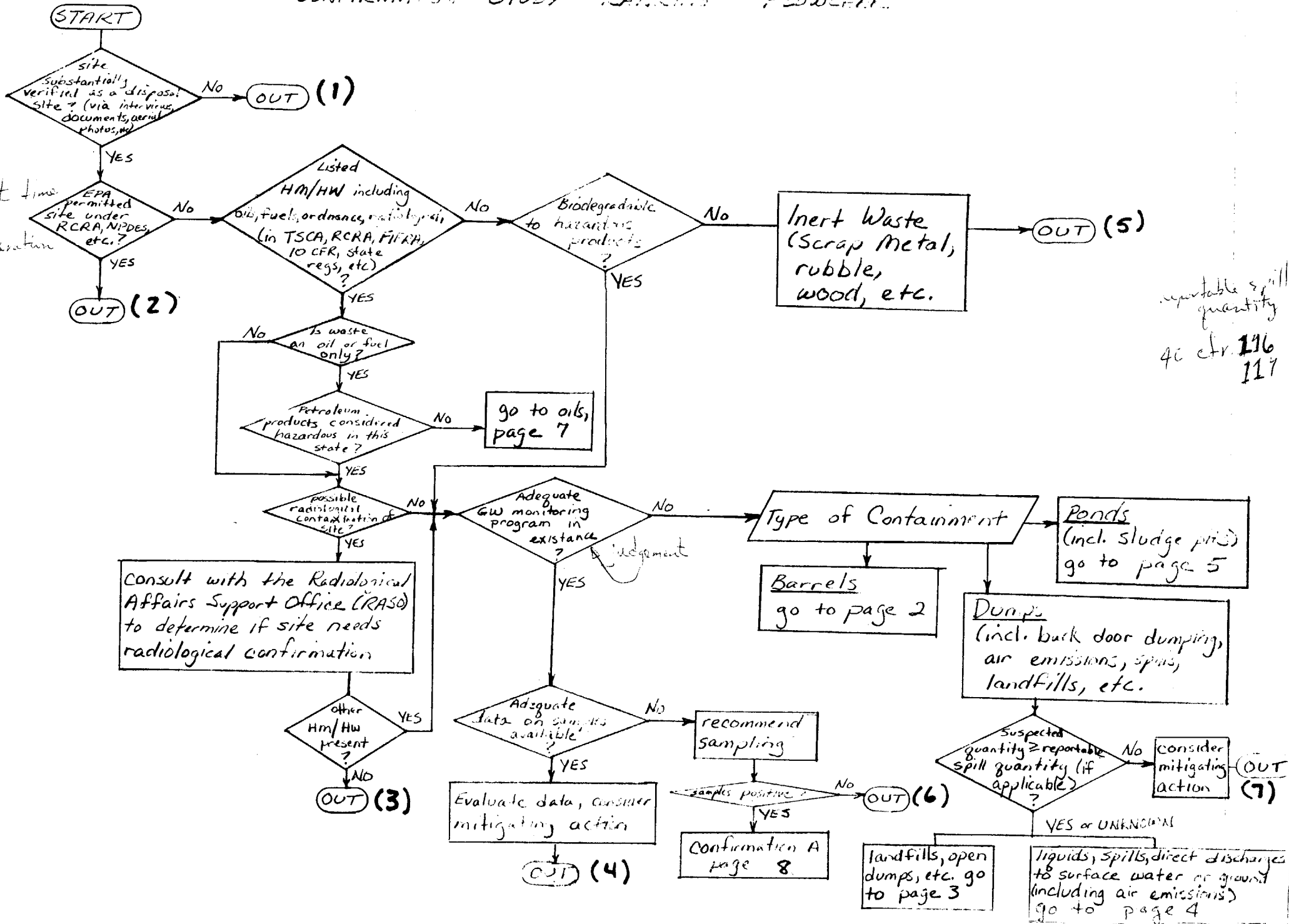
Chang, S., Barrett, K., Hans, S., Platt, A., The Mitre Corporation Site Ranking Model for Determining Remedial Action Priorities Among Uncontrolled Hazardous Substances Facilities.

Collins, J. P., and Glysson,, E. A., "Multiattribute Utility Theory and Environmental Decisions," Journal of the Environmental Engineering Division, A.S.C.E., vol. 106, No. EE 4, Proc. Paper 15648, Aug. 1980, pp. 815-830.

FIGURE 1

CONFIRMATION STUDY RANKING FLOWCHART

b/v



reportable spill quantity
40 cfr. 196
117

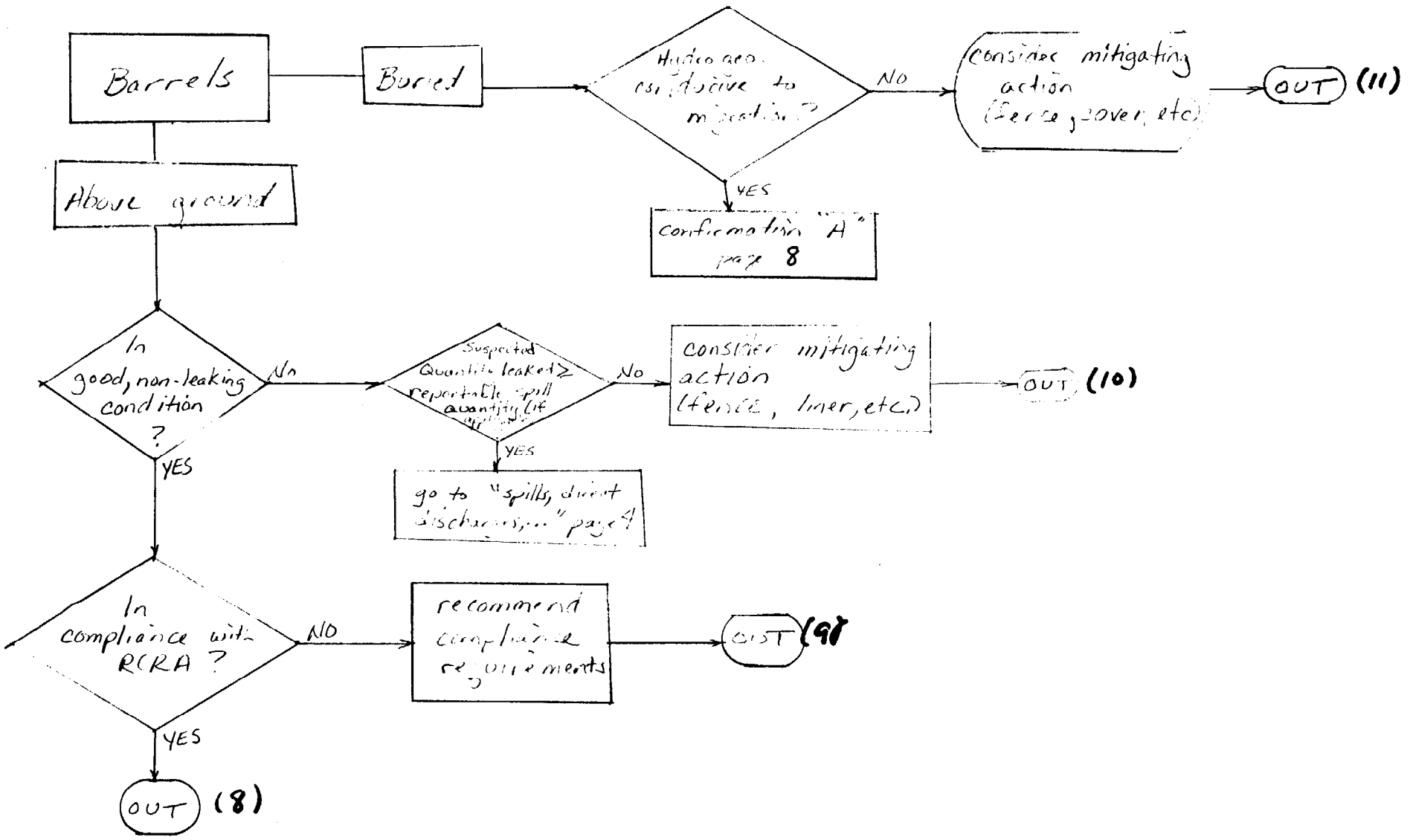


FIGURE 2 (continued)

CSR FLOWCHART

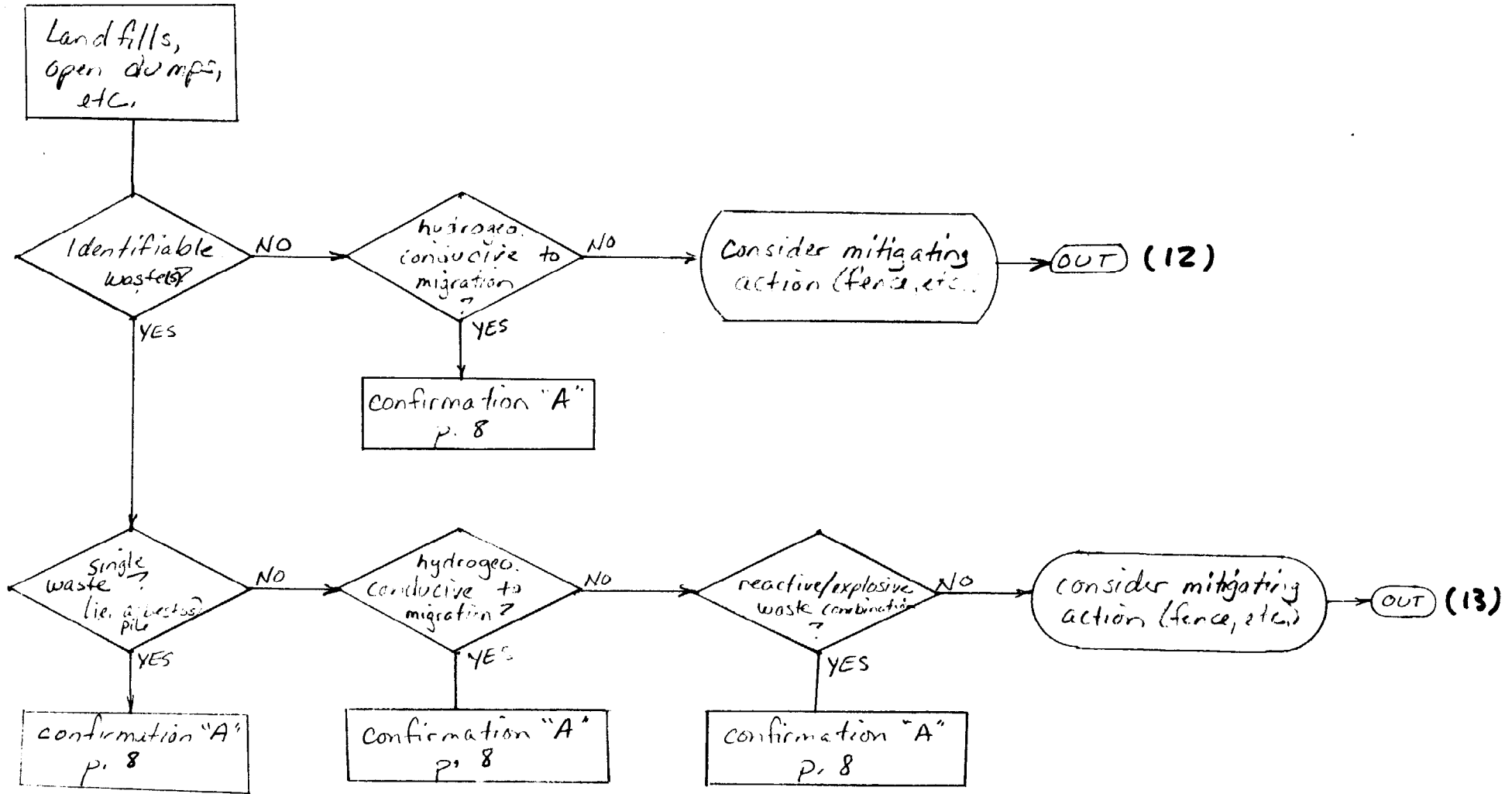


FIGURE 1 (continued)

CSR FLOWCHART

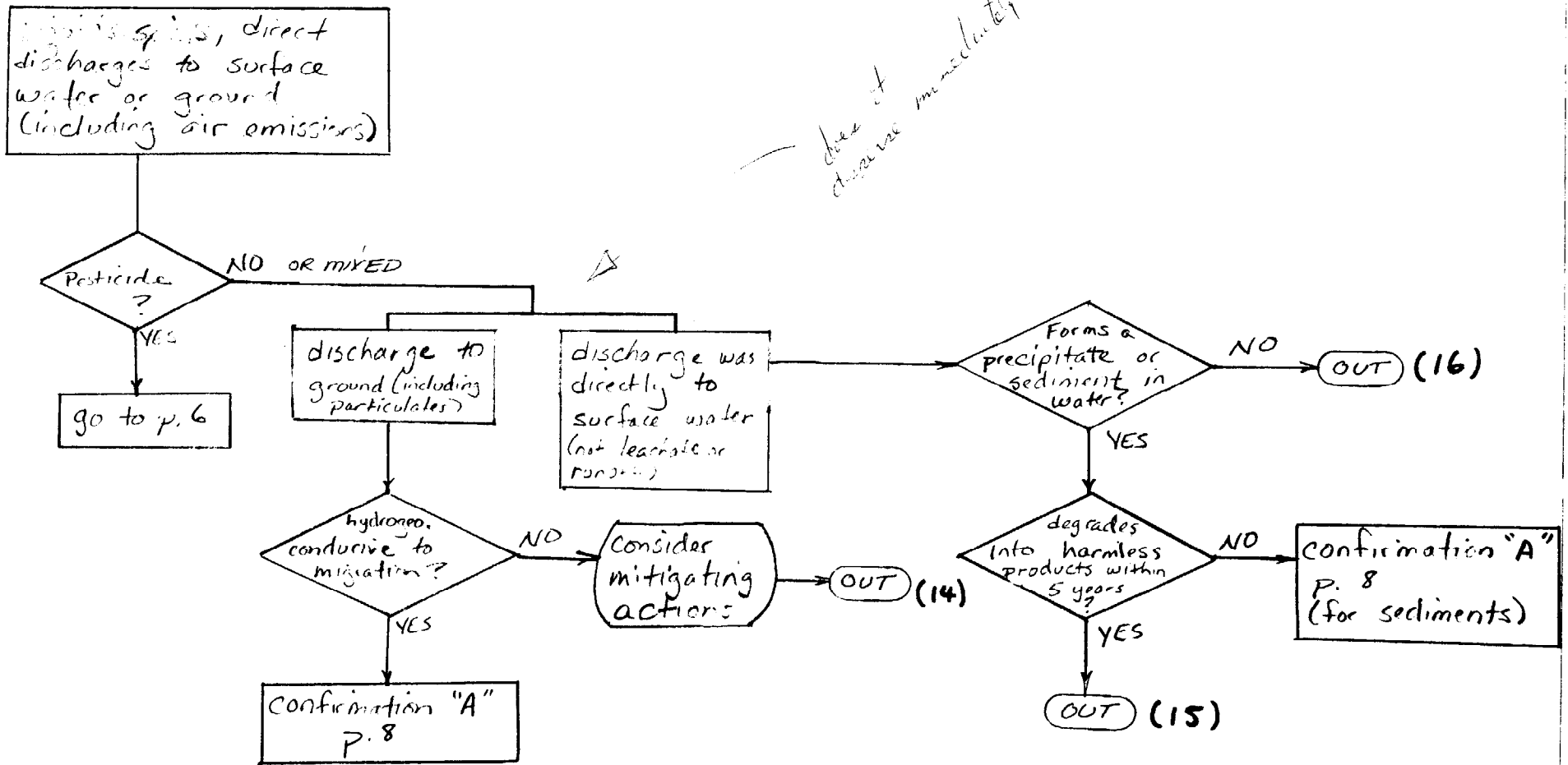


FIGURE 1 (continued)
CSR FLOWCHART

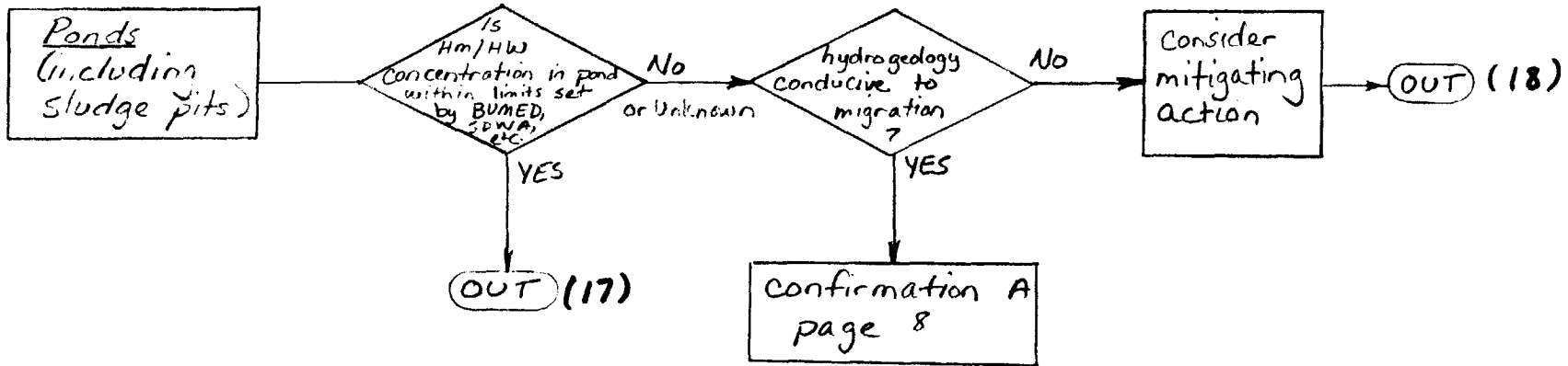


FIGURE 1 (continued)

CSR FLOWCHART

b/9

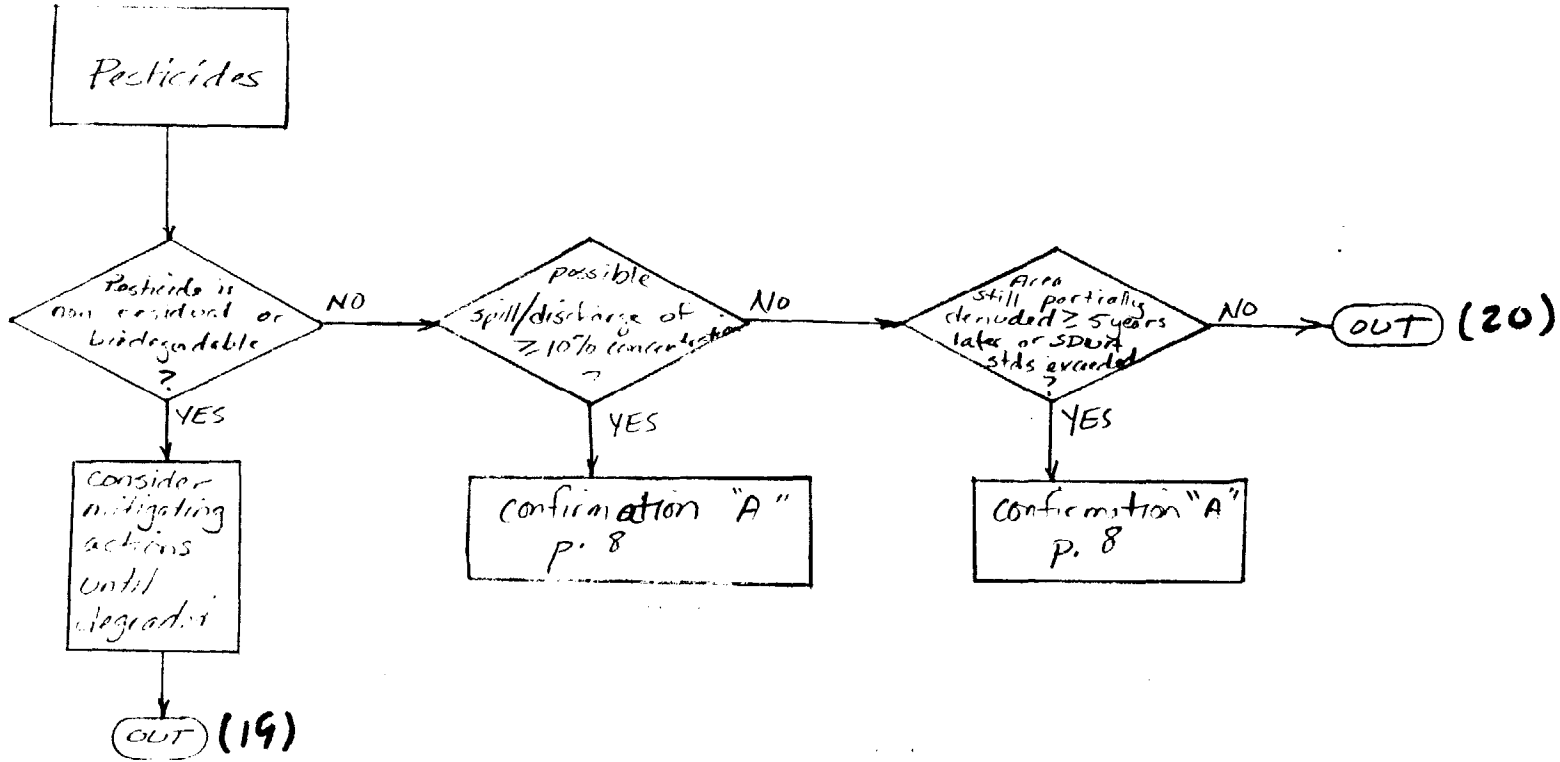


FIGURE 1 (continued)
CSR FLOWCHART

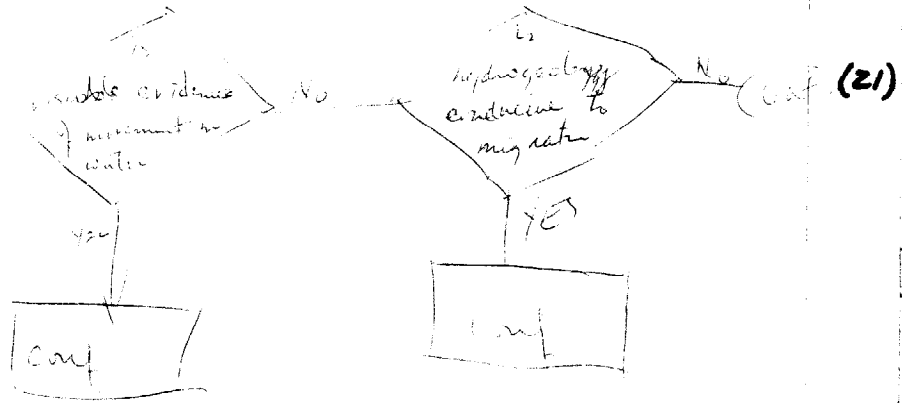
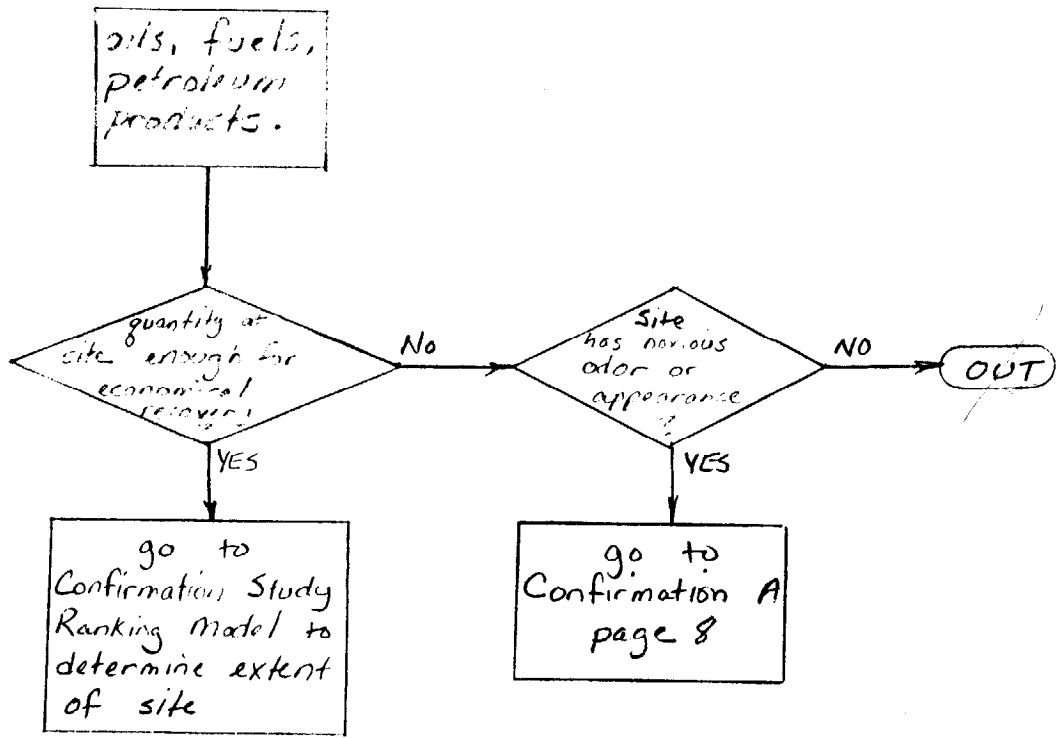


FIGURE 1 (continued)
CSR FLOWCHART

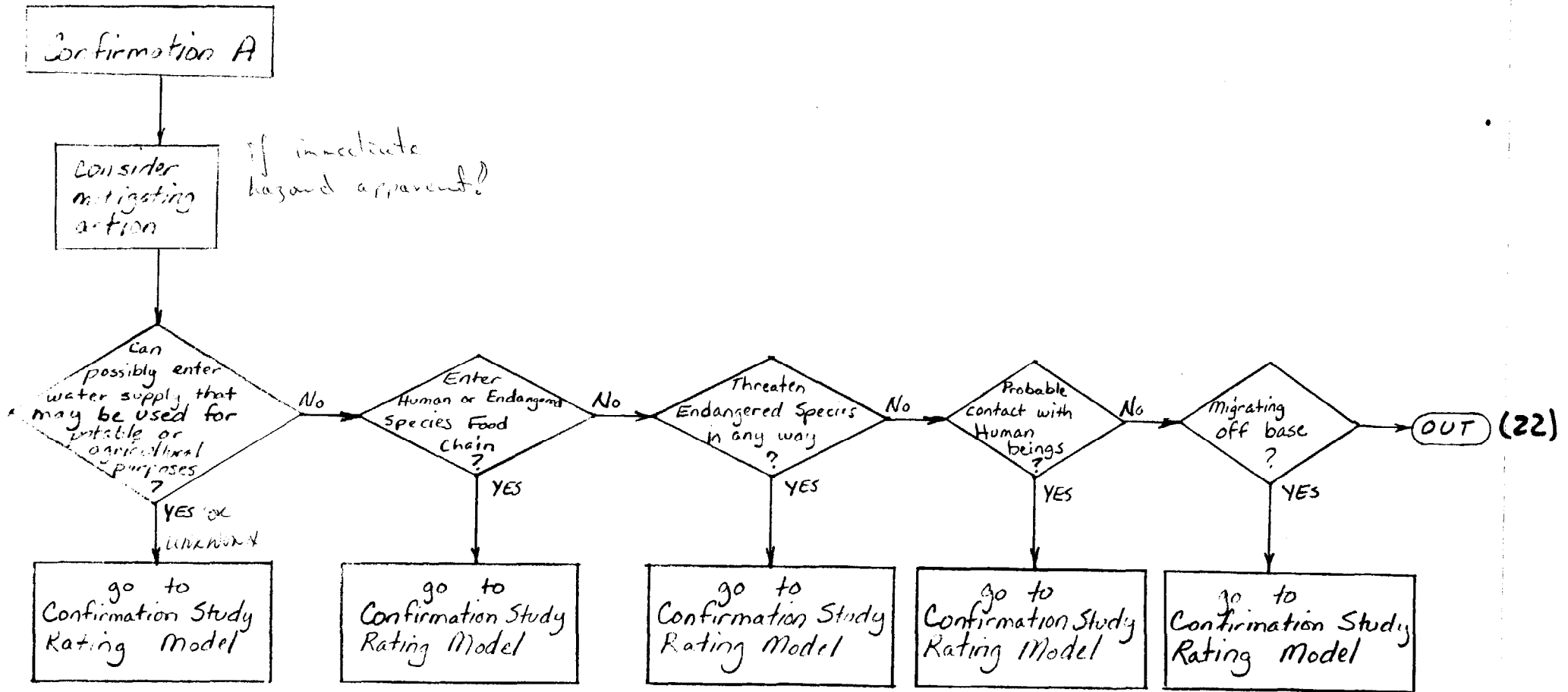


FIGURE 1 (continued)
CSR FLOWCHART

Definitions

HM/HW = hazardous material/hazardous waste

GW = ground water

EPA = Environmental Protection Agency

RCRA = Resource Conservation and Recovery Act

NPDES = National Pollutant Discharge Elimination System

TSCA = Toxic Substances Control Act

FIFRA = Federal Insecticide, Fungicide and Rodenticide Act

10 CFR = Federal Regulations covering Radiological Materials

BUMED = Bureau of Medicine

SDWA = Safe Drinking Water Act

Mitigating Action = may include temporary/permanent actions such as fences, barriers, clay caps, changing method of storage (for barrels), etc.

FIGURE 2

NAME OF SITE _____

LOCATION _____

DATE OF OPERATION OR OCCURRENCE _____

OWNER/OPERATOR _____

COMMENTS/DESCRIPTION _____

SITE RATED BY _____

I. RECEPTORS (see also table 1-1)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
A. Working population within 1,000 feet of site		4		12
B. Distance to nearest well		10		30
C. Land use/zoning within 1 mile radius		3		9
D. Distance to reservation boundary		6		18
E. Critical environments within 1 mile radius of site		10		30
F. Water quality of nearest surface water body		6		18
G. Ground water use of the aquifer of concern		9		27
H. Population served by surface water supply within 3 miles downstream of site		6		18
I. Population served by ground-water supply within 3 miles of site		6		18

Subtotals _____ 180

Receptors subscore = (factor score subtotal/maximum score subtotal) _____

FIGURE 2 (Continued)

II. PATHWAYS (see also table 1-II)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
A. If there is documented laboratory evidence of migration of hazardous contaminants away from the site in question, assign maximum factor subscore of 1 point for direct evidence. If direct evidence exists then proceed to C. If no evidence exists, proceed to B.				

Subscore _____

B. Rate the migration potential for 3 potential pathways: surface water migration, flooding, and ground water migration. Select the highest rating, and proceed to C.

1. Surface water migration

Distance to nearest surface water		8		24
Net precipitation		6		18
Surface erosion		8		24
Soil permeability		6		18
Rainfall intensity		8		24

Subtotals _____ 108

Subscore = (factor score subtotal/maximum score subtotal) _____

2. Flooding		1		
-------------	--	---	--	--

Subscore = (factor score/3) _____

3. Ground water migration

Depth to ground water		8		24
Net precipitation		6		18
Soil permeability		8		24
Subsurface flows		8		24
Direct access to ground water		8		24

Subtotals _____ 114

Subscore = (factor score subtotal/maximum score subtotal) _____

C. Highest pathway subscore.

Enter the highest subscore value from A, B-1, B-2 or B-3 above.

Pathways Subscore _____

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (see also table 1-III)

A.

Rating Factor	Factor Rating (0-3)	Multiplier	Weighted Factor
Waste Quantity		1	= Q
Acute Toxicity		8	= AT
Chronic Toxicity		8	= CT
Persistancy		6	= P
Flammability		4	= F
Reactivity		4	= R
Incompatability		5	= I
Corrosiveness		3	= C
Solubility		5	= S
Bioaccumulation		6	= B
Physical State		3	= PS
Years site was in use		1	= t
Years since site closed		1	= Δt

Weighted Factor = Factor Rating x Multiplier

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (continued)

B. Take the weighted factors and multiply together as indicated below, then add the results together.

<u>Score</u>	<u>Maximum Score</u>
AT x Q =	72
CT x Q =	72
C x Q =	27
F x Q =	36
R x Q =	36
S x Q =	45
PxQxΔt =	162
Bx(Δt+t)=	108
I x Q =	45
Subtotal=	<u>603</u>

Add Physical State Weighted Factor (figure 2-111A) and subtotal

$$\text{Subtotal} + \text{P. S.} = \text{Subscore A}$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$603 + 9 = 612 = \text{maximum subscore A}$$

Waste Characteristics Subscore = subscore A/maximum subscore A

$$= \underline{\hspace{2cm}}$$

General Note:

If data are not available or are known to be incomplete under items I-A through I, II-B-1 or II-B-3, or III-A, then leave blank for calculation of factor score and maximum subscore (i.e. for calculation of the subscore divide the factor score by the maximum subscore minus the unknown item's maximum score).

FIGURE 2 (Continued)

IV. WASTE MANAGEMENT AND FINAL SCORE (see also table 1-IV)

- | | | | |
|--------------------------------|---|---|-------|
| A. Receptors Subscore | = | = | U_R |
| Pathways Subscore | = | = | U_p |
| Waste Characteristics Subscore | = | = | U_W |

Enter the above subscores in the equation:

$$\text{Site Subscore} = U_{\text{site}} = 100 (U_R)(U_p)(U_W)$$

$$= \underline{\hspace{2cm}}$$

- B. Apply factor for waste containment from waste management (table 1-IV)

$$\text{Site Subscore} \times \text{Waste Management} = \text{Final Score}$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Note: If Final Scores are tied for sites on one base, rate the sites according to the confidence level of the information.

Confirmed Criteria

- At least 2 verbal reports from interviews or written information from records.
- Knowledge of types and quantities of wastes generated by shops and other areas on base.
- Based on the above, a determination of the types and quantities of waste disposed of at the site.

Suspected Criteria

- One or no verbal reports or conflicting verbal reports, and no written information from records.
- Logic based on a knowledge of types and quantities of wastes generated at the base, and a history of past waste disposal practices indicate that these wastes were disposed of at the site.

Confirmed sites would be above suspected sites in the ranking.

TABLE 1

1. RECEPTORS CATEGORY

Rating Factors	Rating Scale Levels				Multiplier
	0	1	2	3	
A. Working Population with 1,000 feet (includes on-base facilities)	0	1 - 25	26 - 100	Greater than 100	4
B. Distance to nearest water well ^{potentially} active in aquifer of concern	Greater than 3 miles	1 to 3 miles	3,001 feet to 1 mile	0 to 3,000 feet	10
C. Land Use/Zoning (within 1 mile radius)	Completely remote (zoning not applicable)	Government owned, and idle	Commercial, agricultural, industrial, National Register Historic/Landmark sites	Residential	3
D. Distance to ^{nearest} installation boundary	Greater than 2 miles	1 to 2 miles	1,001 feet to 1 mile	0 to 1,000 feet	6
E. Critical environments (within 1 mile radius)	Not a critical environment	Natural areas	Pristine natural areas; minor wetlands (<5 acres); preserved areas; presence of economically important natural resources susceptible to contamination; estuarine shores.	Major habitat of an endangered or threatened species; presence of recharge area; major wetlands (>5 acres).	10
F. Water quality/use designation of nearest surface water body	Not used or boating only	Agricultural or industrial use	Recreation, swimming, propagation and management of fish and wildlife	Potable water supplies, shellfish propagation and harvesting	6
G. Ground-water use of the aquifer of concern	Not used, other sources readily available.	Commercial, industrial, or irrigation, very limited other water sources.	Drinking water, municipal water available.	Drinking water, no municipal water available; commercial, industrial, or irrigation, no other water source available.	9
H. Population served by surface water supplies within 3 miles downstream of site	0	1 - 50	51 - 1,000	Greater than 1,000	6
I. Population served by the aquifer of concern supplies within 3 miles of site	0	1 - 50	51 - 1,000	Greater than 1,000	6

A. Residential Population times 3 plus working population

B. potable, or industrial, or agricultural

TABLE 1 (Continued)

II. PATHWAYS CATEGORY

A. Evidence of Contamination

Direct evidence is obtained from laboratory analyses of hazardous contaminants present above natural background levels in surface water, ground water, or air. Evidence should confirm that the source of contamination is the site being evaluated. The samples should have been off site but near the site.

B-1 POTENTIAL FOR SURFACE WATER CONTAMINATION

Rating Factor	Rating Scale Levels				Multiplier
	0	1	2	3	
Distance to nearest surface water (includes drainage ditches and storm sewers)	Greater than 1 mile	2,001 feet to 1 mile	501 feet to 2,000 feet	0 to 500 feet	8
Net precipitation (total precipitation minus evapotranspiration)	Less than -10 in.	-10 to + 5 in.	+5 to +20 in.	Greater than +20 inches	6
Surface erosion	None	Slight	Moderate	Severe	8
Soil permeability	0% to 15% clay (>10 ⁻² cm/sec)	15% to 30% clay (10 ⁻² to 10 ⁻⁴ cm/sec)	30% to 50% clay (10 ⁻⁴ to 10 ⁻⁶ cm/sec)	Greater than 50% clay (<10 ⁻⁶ cm/sec)	6
Rainfall intensity based on 1 year 24-hr rainfall (or mean annual number of thunderstorms)	Less than 1.0 inch (0-5)	1.0-2.0 inches (6-35)	2.1-3.0 inches (36-48)	Greater than 3.0 inches (>50)	8

B-2 POTENTIAL FOR FLOODING

Floodplain	Beyond 100-year floodplain	In 100-year floodplain	In 10-year floodplain	Floods annually	1
------------	----------------------------	------------------------	-----------------------	-----------------	---

B-3 POTENTIAL FOR GROUND-WATER CONTAMINATION OF THE AQUIFER OF CONCERN

Depth to ground water	Greater than 500 ft	50 to 500 feet	11 to 50 feet	0 to 10 feet	8
Net precipitation	Less than -10 in.	-10 to +5 in.	+5 to +20 in.	Greater than +20 inc.	6
Soil permeability	Greater than 50% clay (>10 ⁻⁶ cm/sec)	30% to 50% clay (10 ⁻⁴ to 10 ⁻⁶ cm/sec)	15% to 30% clay (10 ⁻² to 10 ⁻⁴ cm/sec)	0% to 15% clay (<10 ⁻² cm/sec)	8
Subsurface flows	Bottom of site greater than 5 feet above high ground-water level	Bottom of site < 5 feet above high ground-water level Bottom of site occasionally submerged (1-3 times/year)	Bottom of site frequently submerged (>3 times/year)	Bottom of site submerged.	8
Direct access to ground water (through faults, fractures, faulty well casings, subsidence fissures, etc.)	No evidence of risk	Low risk	Moderate risk	High risk	8

TABLE 1 (Continued)

III. WASTE CHARACTERISTICS

Rating Factors	Rating Scale Level				Multiplier
	0	1	2	3	
Waste Quantity (40 CFR 117)	If applicable: < reportable spill quantity or < 1 lb.	1-5 times report- able spill quantity	5-20 times reportable spill quantity	>20 times reportable spill quantity	1
Toxicity Acute & Chronic	Sax's Level 0	Sax's Level 1	Sax's Level 2	Sax's Level 3	8
Persistancy	Easily degraded compounds or harmless materials	Straight chain hydrocarbons	Substitute and other ring compounds	Heavy metal compounds, polycyclic compounds, halogenated hydrocarbons, or degradation products are hazardous	6
Flammability	NFPA Level 0 or Flash point > 200°F	NFPA Level 1 Flash point 140°F-200°F	NFPA Level 2 Flash point 80°F-140°F	NFPA Level 3 & 4 Flash point < 80°F	4
Reactivity	NFPA Level 0	NFPA Level 1	NFPA Level 2	NFPA Level 3 & 4	4
Incompatible wastes present (40 CFR 265 Appendix V)	No	Unknown	Yes, but adequately separated	Yes, poses a hazard	5
Corrosiveness	pH 6-8	pH 5-6 or 8-10	pH 3-5 or 10-12	pH 1-3 to 12-14	3
Solubility at 20°C	Insoluble or 0-10g/100ml water	Insoluble in water, soluble in acids or bases ---	Sparsingly or slightly soluble in water 10-24g/100ml water	Soluble in water >24g/100ml water	5
Bioaccumulation	No	---	---	Yes	6
Physical State	Solid - consolidated or stabilized	Solid - noncon- solidated or non- stabilized	Sludge, slurry, powder, or fine material	Liquid or air emissions	3
Years site was in use	---	<5	5-10	>10	1
Years since site was closed or use was discontinued	>50	15-50	5-15	0-5	1

Note: For sites with more than one hazardous waste the worst case should be used in scoring this section.

TABLE 1 (Continued)

IV. WASTE MANAGEMENT AND FINAL SCORE

A. This category adjusts the total risk as determined from the receptors, pathways, and waste characteristics categories for waste management practices and engineering controls designed to reduce this risk.

B. WASTE MANAGEMENT PRACTICES FACTOR

The following multipliers are then applied to the total risk points (from A):

<u>Waste Management Practice</u>	<u>Multiplier</u>
No containment	1.0
Limited containment	0.80
Fully contained and in full compliance	0.10

Guidelines for fully contained:

Landfills:

- Clay cap or other impermeable cover
- Leachate collection system
- Liners in good condition
- Adequate monitoring wells

Spills:

- Quick spill cleanup action taken
- Contaminated soil removed
- Soil and/or water samples confirm total cleanup of the spill

Surface Impoundments:

- Liners in good condition
- Sound dikes and adequate freeboard
- Adequate monitoring wells

Fire Protection Training Areas:

- Concrete surface and berms
- Oil/water separator for pretreatment of runoff
- Effluent from oil/water separator to treatment plant

Limited containment of a site would include only some of the above guidelines for fully contained.

APPENDIX A

Example 1
PCB Storage Yard

FIGURE 2

NAME OF SITE Old PCB transformer storage area
 LOCATION NAS Coast City, North of building 1554, 20'x100'
 DATE OF OPERATION OR OCCURRENCE prior to 1967 - 1977
 OWNER/OPERATOR PWC
 COMMENTS/DESCRIPTION yard is outside, asphalted (black sludge on asphalt), fenced & locked
 SITE RATED BY E. Luecker

1. RECEPTORS (see also table 1-1)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
A. Working population within 1,000 feet of site	2	4	8	12
B. Distance to nearest well	3	10	30	30
C. Land use/zoning within 1 mile radius	2	3	6	9
D. Distance to reservation boundary	2	6	12	18
E. Critical environments within 1 mile radius of site	2	10	20	30
F. Water quality of nearest surface water body	1	6	6	18
G. Ground water use of the aquifer of concern	1	9	9	27
H. Population served by surface water supply within 3 miles downstream of site	0	6	0	18
I. Population served by ground-water supply within 3 miles of site	3	6	18	18

Subtotals 109 180

Receptors subscore = (factor score subtotal/maximum score subtotal) 0.606

FIGURE 2 (Continued)

II. PATHWAYS (see also table 1-II)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
---------------	---------------------	------------	--------------	------------------------

A. If there is documented laboratory evidence of migration of hazardous contaminants away from the site in question, assign maximum factor subscore of 1 point for direct evidence. If direct evidence exists then proceed to C. If no evidence exists, proceed to B.

Subscore 0

B. Rate the migration potential for 3 potential pathways: surface water migration, flooding, and ground water migration. Select the highest rating, and proceed to C.

1. Surface water migration

Distance to nearest surface water	1	8	8	24
Net precipitation	3	6	18	18
Surface erosion	0	8	0	24
Soil permeability	3	6	18	18
Rainfall intensity	3	8	24	24

Subtotals 68 108

Subscore = (factor score subtotal/maximum score subtotal) 0.630

2. Flooding	1	1	1	1
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Subscore = (factor score/3) 0.333

3. Ground water migration

Depth to ground water	3	8	24	24
Net precipitation	3	6	18	18
Soil permeability	0	8	0	24
Subsurface flows	1	8	8	24
Direct access to ground water	0	8	0	24

Subtotals 50 114

Subscore = (factor score subtotal/maximum score subtotal) 0.439

C. Highest pathway subscore.

Enter the highest subscore value from A, B-1, B-2 or B-3 above.

Pathways Subscore 0.630

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (see also table 1-III)

A.

Rating Factor	Factor Rating (0-3)	Multiplier	Weighted Factor
Waste Quantity	3	1	3 = Q
Acute Toxicity	3	8	24 = AT
Chronic Toxicity	3	8	24 = CT
Persistancy	3	6	18 = P
Flammability	0	4	0 = F
Reactivity	0	4	0 = R
Incompatability	0	5	0 = I
Corrosiveness	0	3	0 = C
Solubility	0	5	0 = S
Bioaccumulation	3	6	18 = B
Physical State	2	3	6 = PS
Years site was in use	3	1	3 = t
Years since site closed	3	1	3 = At

Weighted Factor = Factor Rating x Multiplier

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (continued)

B. Take the weighted factors and multiply together as indicated below, then add the results together.

	<u>Score</u>	<u>Maximum Score</u>
AT x Q =	24 x 3 = 72	72
CT x Q =	24 x 3 = 72	72
C x Q =	0 x 3 = 0	27
F x Q =	0 x 3 = 0	36
R x Q =	0 x 3 = 0	36
S x Q =	0 x 3 = 0	45
PxQxΔt =	18 x 3 x 3 = 162	162
Bx(Δt+t) =	18 x (3+3) = 108	108
I x Q =	0 x 3 = 0	45
Subtotal =	<u>414</u>	<u>603</u>

Add Physical State Weighted Factor (figure 2-IIIA) and subtotal

Subtotal + P. S. = Subscore A

$$\underline{414} + \underline{6} = \underline{420}$$

$$603 + 9 = 612 = \text{maximum subscore A}$$

Waste Characteristics Subscore = subscore A / maximum subscore A

$$= \underline{0.686}$$

General Note:

If data are not available or are known to be incomplete under items I-A through I, II-B-1 or II-B-3, or III-A, then leave blank for calculation of factor score and maximum subscore (i.e. for calculation of the subscore divide the factor score by the maximum subscore minus the unknown item's maximum score).

FIGURE 2 (Continued)

IV. WASTE MANAGEMENT AND FINAL SCORE (see also table 1-IV)

- A. Receptors Subscore = 0.606 = U_R
Pathways Subscore = 0.630 = U_P
Waste Characteristics Subscore = 0.686 = U_W

Enter the above subscores in the equation:

$$\begin{aligned} \text{Site Subscore} = U_{\text{site}} &= 100 (U_R)(U_P)(U_W) \\ &= \underline{26.19} \end{aligned}$$

- B. Apply factor for waste containment from waste management (table 1-IV)

$$\begin{aligned} \text{Site Subscore} \times \text{Waste Management} &= \text{Final Score} \\ \underline{26.19} \times \underline{0.8} &= \underline{20.95} \end{aligned}$$

Note: If Final Scores are tied for sites on one base, rate the sites according to the confidence level of the information.

Confirmed Criteria

- At least 2 verbal reports from interviews or written information from records.
- Knowledge of types and quantities of wastes generated by shops and other areas on base.
- Based on the above, a determination of the types and quantities of waste disposed of at the site.

Suspected Criteria

- One or no verbal reports or conflicting verbal reports, and no written information from records.
- Logic based on a knowledge of types and quantities of wastes generated at the base, and a history of past waste disposal practices indicate that these wastes were disposed of at the site.

Confirmed sites would be above suspected sites in the ranking.

1/2

Example 2
Shoreline Rubble Dump

FIGURE 2

NAME OF SITE Rubble Dump along east shoreline
 LOCATION NAS Coast City - east side of base from airfield north
 DATE OF OPERATION OR OCCURRENCE early 1900's - present
 OWNER/OPERATOR PWC
 COMMENTS/DESCRIPTION rubble dump appears clean, is in water, 1 1/2 miles long
 SITE RATED BY E. Luecker

I. RECEPTORS (see also table 1-1)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
A. Working population within 1,000 feet of site	1	4	4	12
B. Distance to nearest well	1	10	10	30
C. Land use/zoning within 1 mile radius	2	3	6	9
D. Distance to reservation boundary	3	6	18	18
E. Critical environments within 1 mile radius of site	3	10	30	30
F. Water quality of nearest surface water body	3	6	18	18
G. Ground water use of the aquifer of concern	1	9	9	27
H. Population served by surface water supply within 3 miles downstream of site	0	6	0	18
I. Population served by ground-water supply within 3 miles of site	3	6	18	18

Subtotals 113 180

Receptors subscore = (factor score subtotal / maximum score subtotal) 0.628

Note: This rubble dump would have dropped out in the flowchart (figure 1) and would not be ranked under normal circumstances. It is included here to show that this model drops out clean sites completely, unlike some previous models.

FIGURE 2 (Continued)

II. PATHWAYS (see also table 1-II)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
---------------	---------------------	------------	--------------	------------------------

- A. If there is documented laboratory evidence of migration of hazardous contaminants away from the site in question, assign maximum factor subscore of 1 point for direct evidence. If direct evidence exists then proceed to C. If no evidence exists, proceed to B.

Subscore 0

- B. Rate the migration potential for 3 potential pathways: surface water migration, flooding, and ground water migration. Select the highest rating, and proceed to C.

1. Surface water migration

Distance to nearest surface water	3	8	24	24
Net precipitation	3	6	18	18
Surface erosion	0	8	0	24
Soil permeability	0	6	0	18
Rainfall intensity	3	8	24	24

Subtotals 66 108

Subscore = (factor score subtotal/maximum score subtotal) 0.611

2. Flooding
- | | | | |
|--|---|---|--|
| | 3 | 1 | |
|--|---|---|--|

Subscore = (factor score/3) 1.00

3. Ground water migration

Depth to ground water	3	8	24	24
Net precipitation	3	6	18	18
Soil permeability	3	8	24	24
Subsurface flows	2	8	16	24
Direct access to ground water	0	8	0	24

Subtotals 82 114

Subscore = (factor score subtotal/maximum score subtotal) 0.719

- C. Highest pathway subscore.

Enter the highest subscore value from A, B-1, B-2 or B-3 above.

Pathways Subscore 1.00

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (see also table 1-III)

A.

Rating Factor	Factor Rating (0-3)	Multiplier	Weighted Factor
Waste Quantity	3	1	3 = Q
Acute Toxicity	0	8	0 = AT
Chronic Toxicity	0	8	0 = CT
Persistancy	0	6	0 = P
Flammability	0	4	0 = F
Reactivity	0	4	0 = R
Incompatability	0	5	0 = I
Corrosiveness	0	3	0 = C
Solubility	0	5	0 = S
Bioaccumulation	0	6	0 = B
Physical State	0	3	0 = PS
Years site was in use	3	1	3 = t
Years since site closed	3	1	3 = Δt

Weighted Factor = Factor Rating x Multiplier

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (continued)

B. Take the weighted factors and multiply together as indicated below, then add the results together.

Score	Maximum Score
AT x Q = 0 x 3 = 0	72
CT x Q = 0 x 3 = 0	72
C x Q = 0 x 3 = 0	27
F x Q = 0 x 3 = 0	36
R x Q = 0 x 3 = 0	36
S x Q = 0 x 3 = 0	45
PxQxΔt = 0 x 3 x 3 = 0	162
Bx(Δt+t) = 0 x (3+3) = 0	108
I x Q = 0 x 3 = 0	45
Subtotal = 0	603

Add Physical State Weighted Factor (figure 2-III A) and subtotal

Subtotal + P. S. = Subscore A

$$\underline{0} + \underline{0} = \underline{0}$$

$$603 + 9 = 612 = \text{maximum subscore A}$$

Waste Characteristics Subscore = subscore A / maximum subscore A

$$= \underline{0}$$

General Note:

If data are not available or are known to be incomplete under items I-A through I, II-B-1 or II-B-3, or III-A, then leave blank for calculation of factor score and maximum subscore (i.e. for calculation of the subscore divide the factor score by the maximum subscore minus the unknown item's maximum score).

FIGURE 2 (Continued)

IV. WASTE MANAGEMENT AND FINAL SCORE (see also table 1-IV)

- A. Receptors Subscore = 0.628 = U_R
Pathways Subscore = 1.00 = U_P
Waste Characteristics Subscore = 0 = U_W

Enter the above subscores in the equation:

$$\begin{aligned} \text{Site Subscore} = U_{\text{site}} &= 100 (U_R)(U_P)(U_W) \\ &= \underline{0} \end{aligned}$$

- B. Apply factor for waste containment from waste management (table 1-IV)

$$\begin{aligned} \text{Site Subscore} \times \text{Waste Management} &= \text{Final Score} \\ \underline{0} \times \underline{1.0} &= \underline{0} \end{aligned}$$

Note: If Final Scores are tied for sites on one base, rate the sites according to the confidence level of the information.

Confirmed Criteria

- At least 2 verbal reports from interviews or written information from records.
- Knowledge of types and quantities of wastes generated by shops and other areas on base.
- Based on the above, a determination of the types and quantities of waste disposed of at the site.

Suspected Criteria

- One or no verbal reports or conflicting verbal reports, and no written information from records.
- Logic based on a knowledge of types and quantities of wastes generated at the base, and a history of past waste disposal practices indicate that these wastes were disposed of at the site.

Confirmed sites would be above suspected sites in the ranking.

FIGURE 2 (Continued)

IV. WASTE MANAGEMENT AND FINAL SCORE (see also table 1-IV)

A. Receptors Subscore	=	0.628	=	U_R
Pathways Subscore	=	1.00	=	U_P
Waste Characteristics Subscore	=	0	=	U_W

Enter the above subscores in the equation:

$$\begin{aligned} \text{Site Subscore} = U_{\text{site}} &= 100 (U_R)(U_P)(U_W) \\ &= \underline{\quad 0 \quad} \end{aligned}$$

B. Apply factor for waste containment from waste management (table 1-IV)

$$\begin{aligned} \text{Site Subscore} \times \text{Waste Management} &= \text{Final Score} \\ \underline{\quad 0 \quad} \times \underline{\quad 1.0 \quad} &= \underline{\quad 0 \quad} \end{aligned}$$

Note: If Final Scores are tied for sites on one base, rate the sites according to the confidence level of the information.

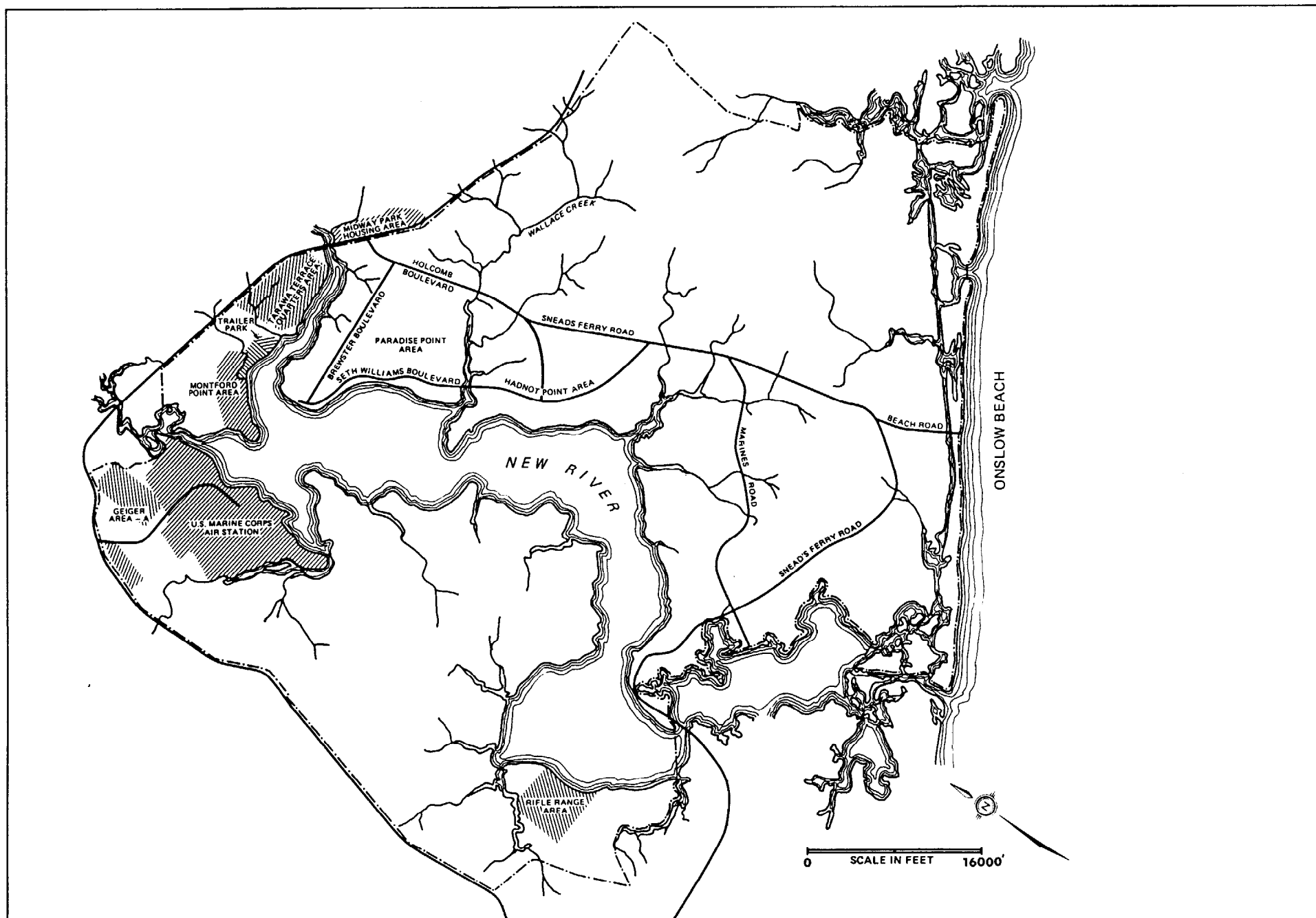
Confirmed Criteria

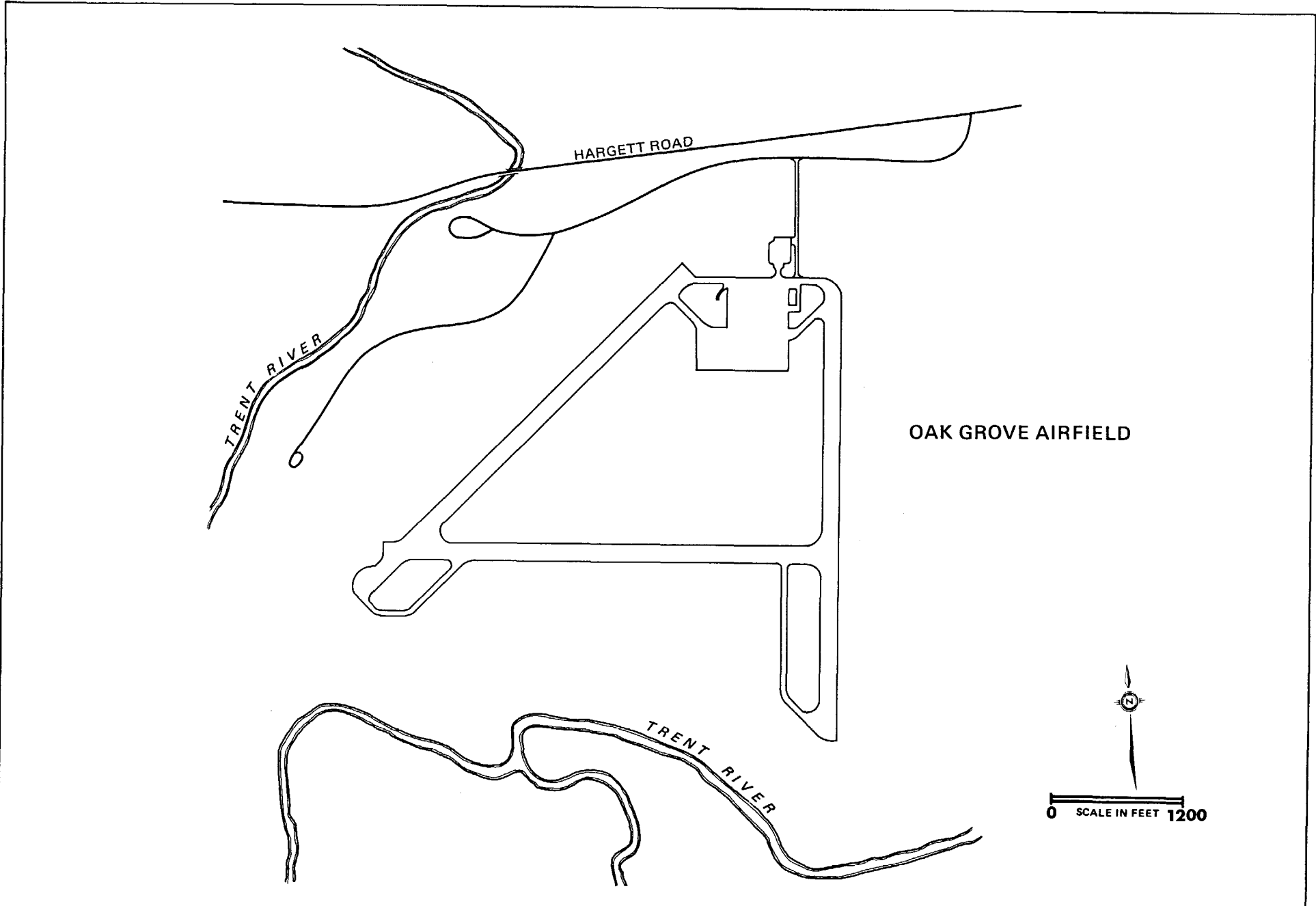
- At least 2 verbal reports from interviews or written information from records.
- Knowledge of types and quantities of wastes generated by shops and other areas on base.
- Based on the above, a determination of the types and quantities of waste disposed of at the site.

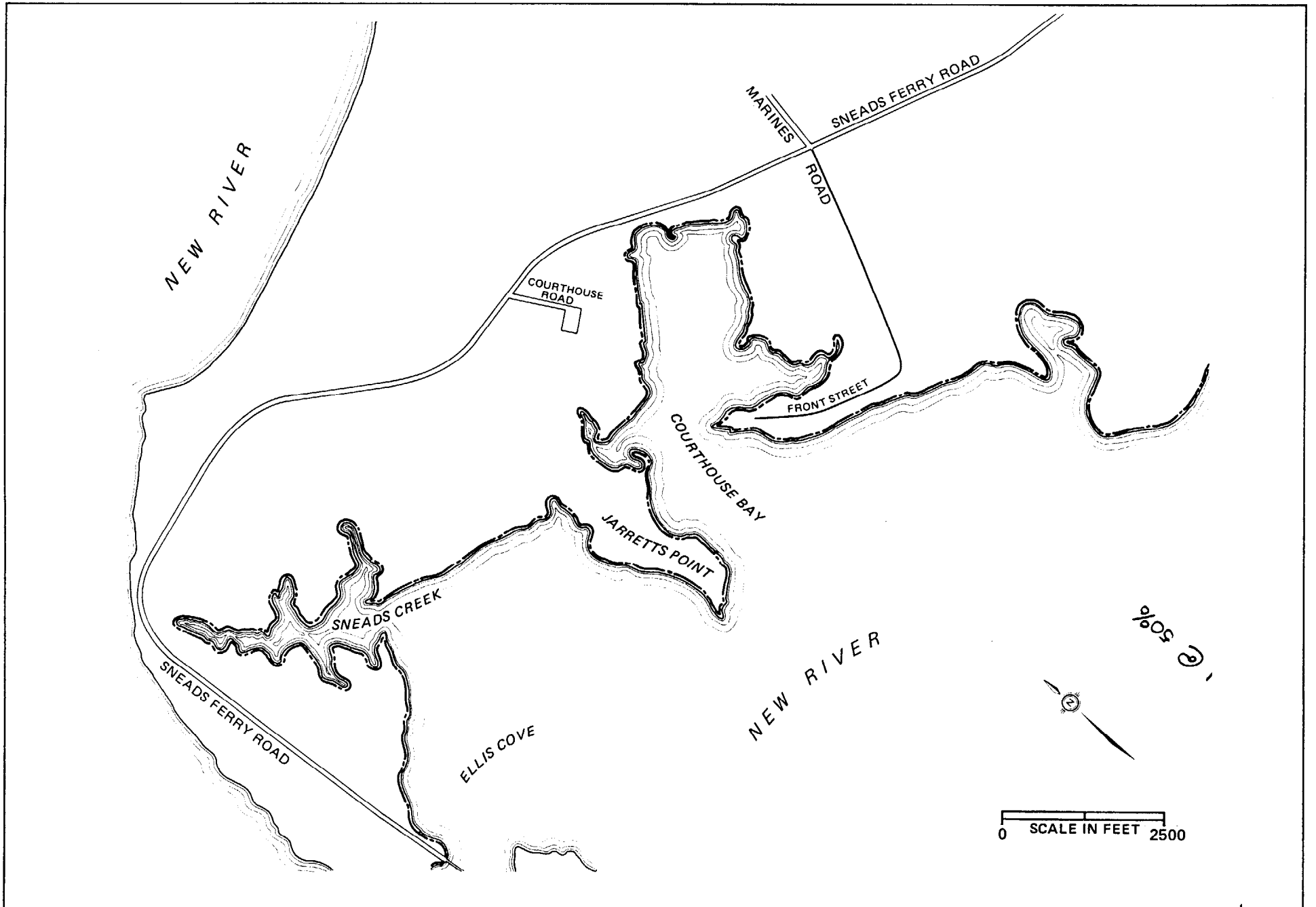
Suspected Criteria

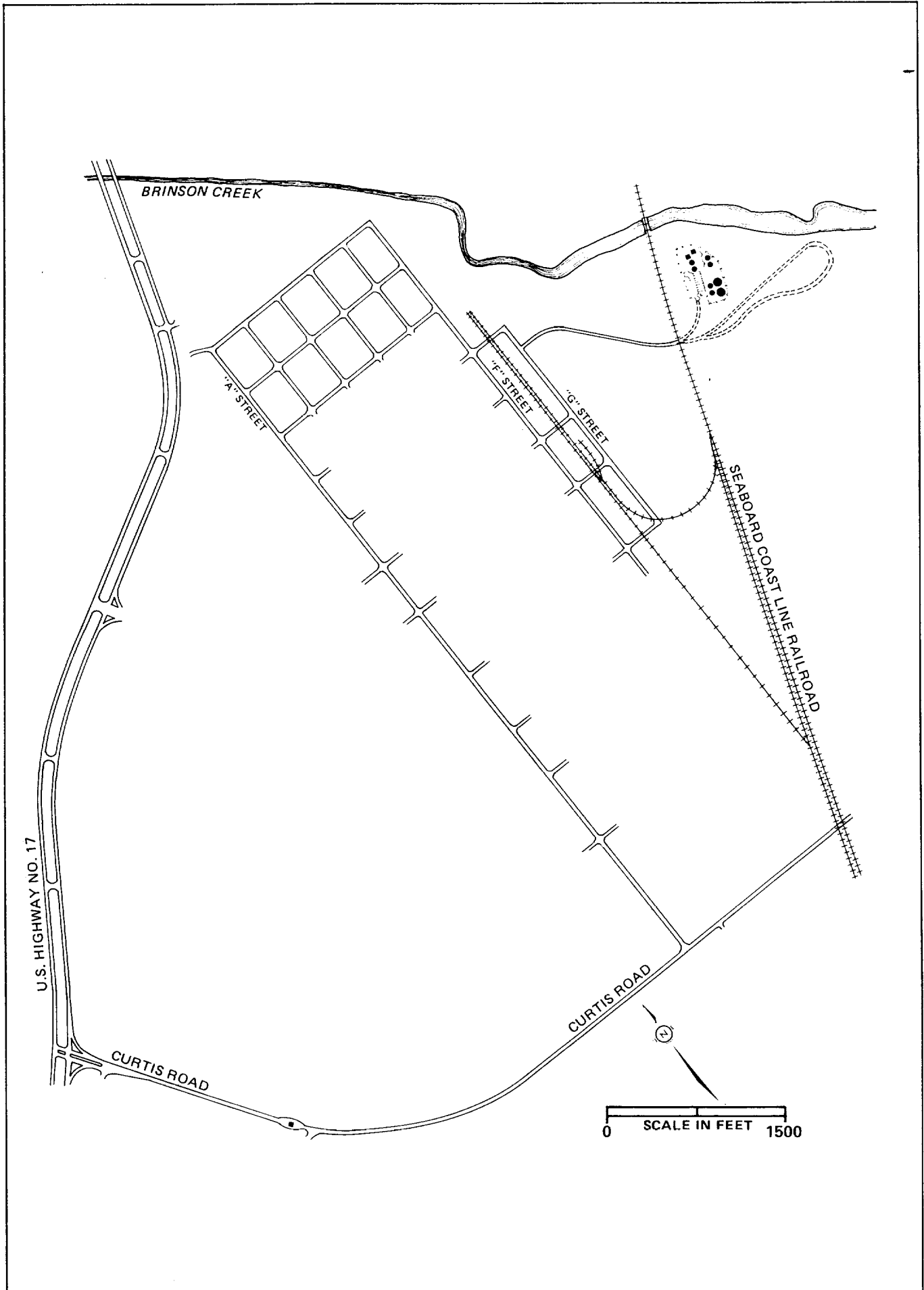
- One or no verbal reports or conflicting verbal reports, and no written information from records.
- Logic based on a knowledge of types and quantities of wastes generated at the base, and a history of past waste disposal practices indicate that these wastes were disposed of at the site.

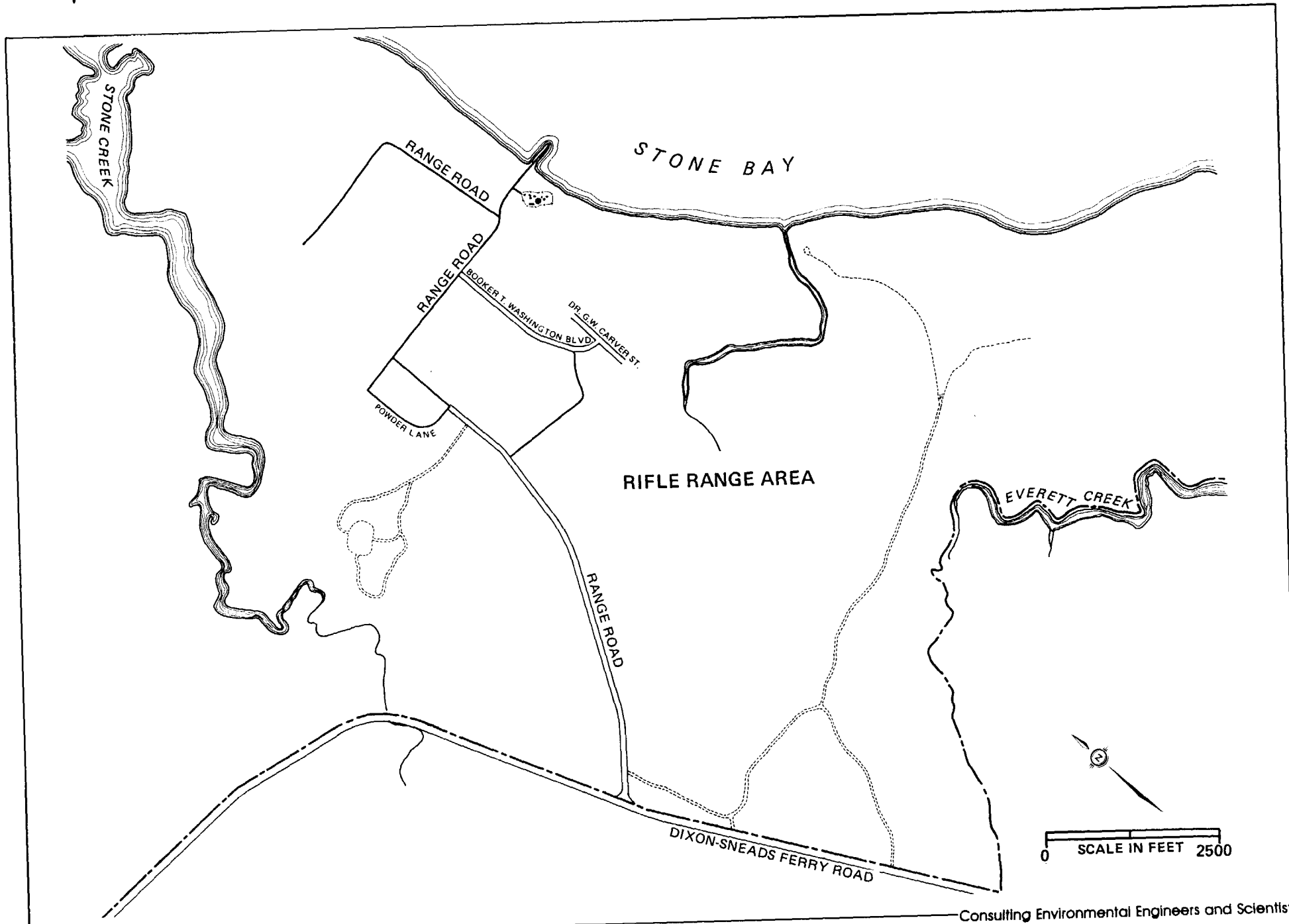
Confirmed sites would be above suspected sites in the ranking.

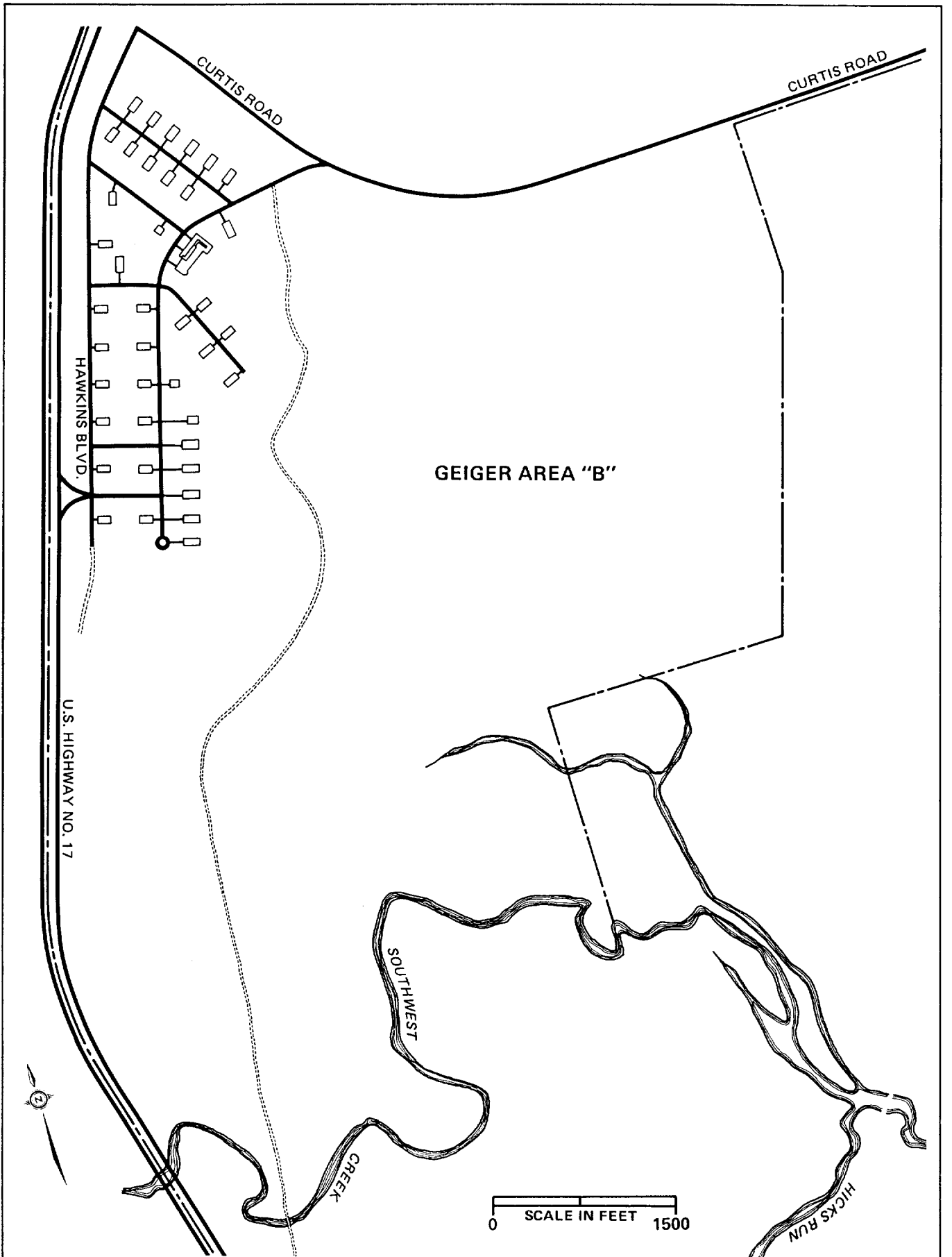


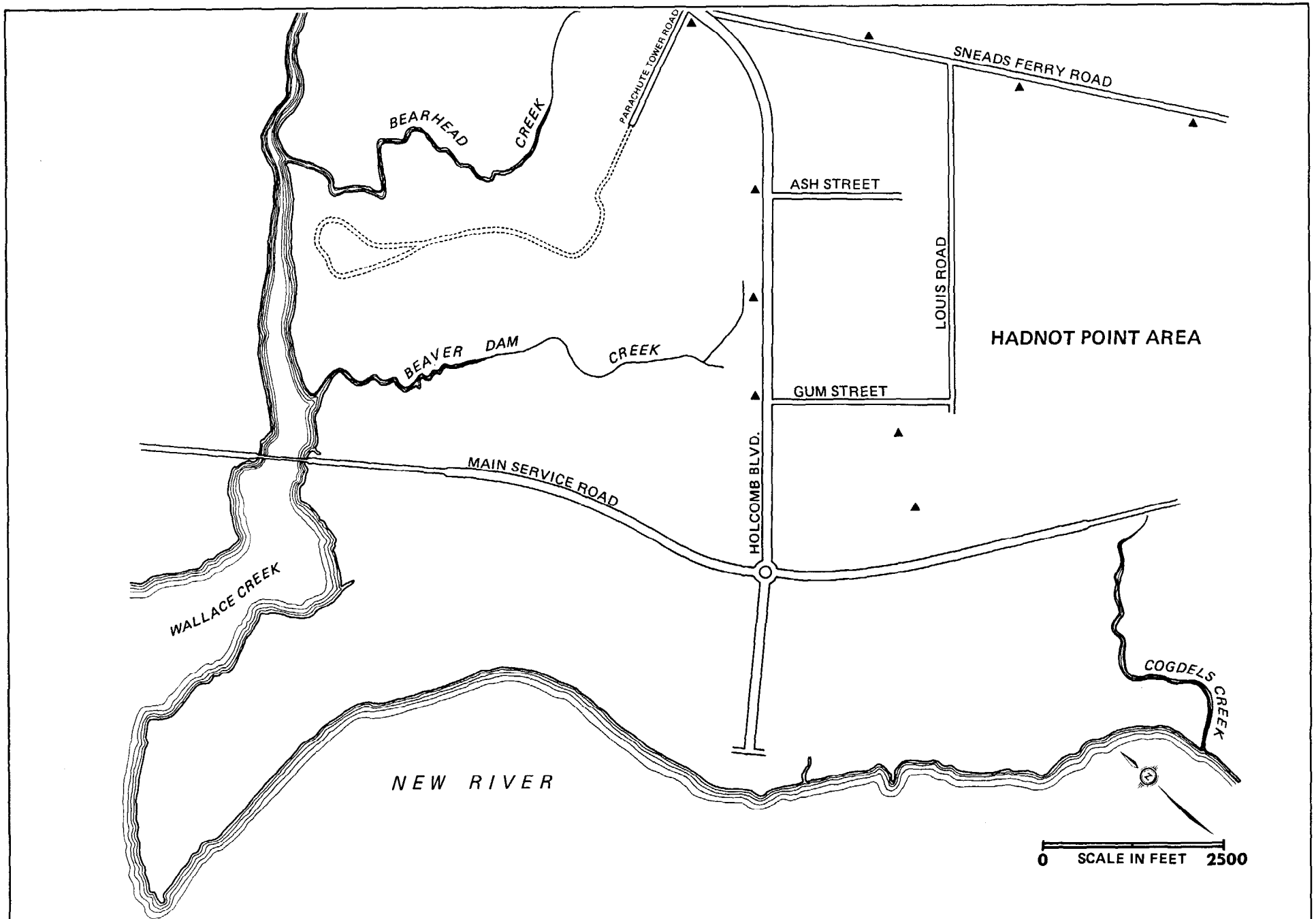












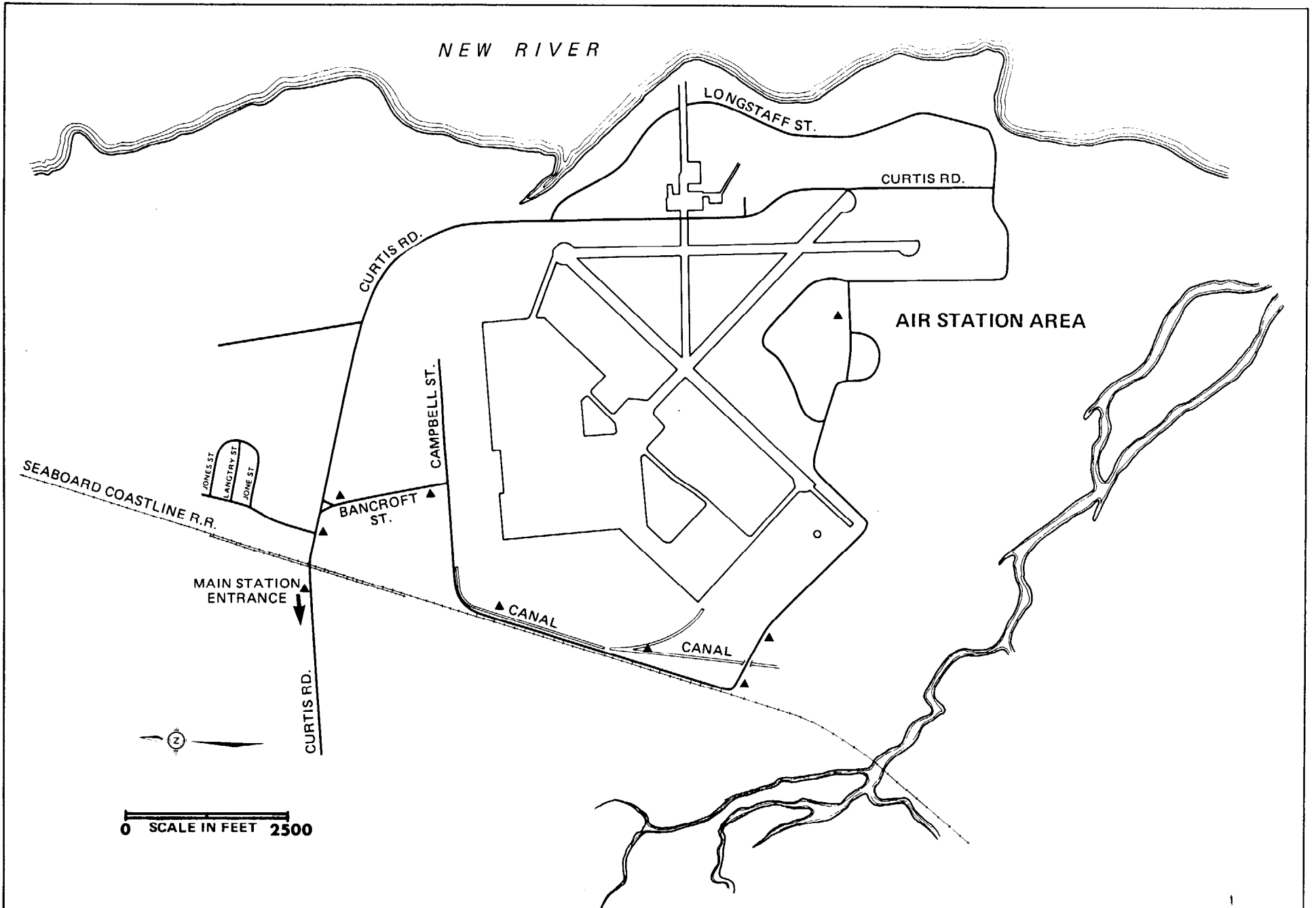


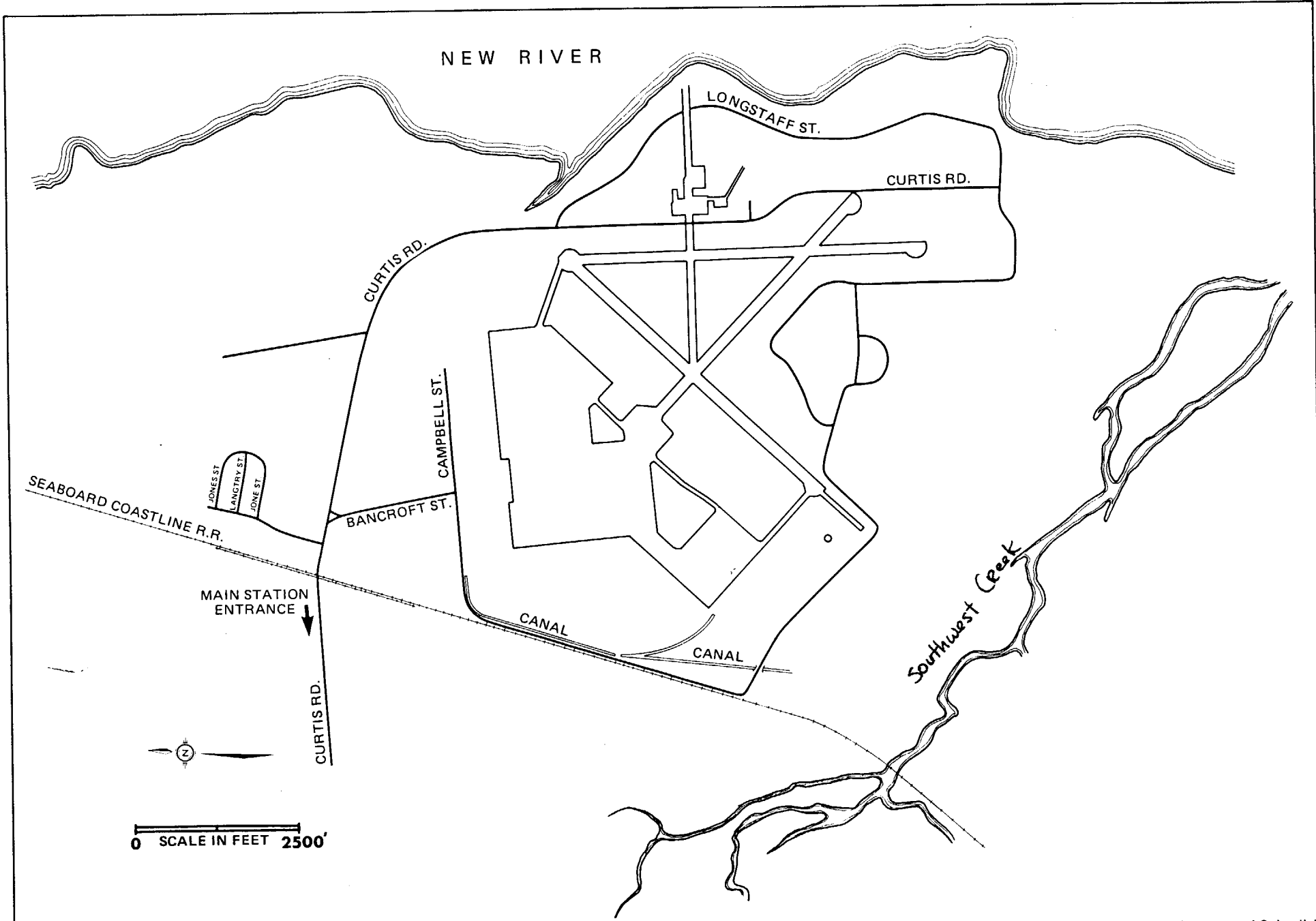
Table 1. Comments on Sensitive Species Regarding Occurrence Within Study Area (Camp Lejeune*)

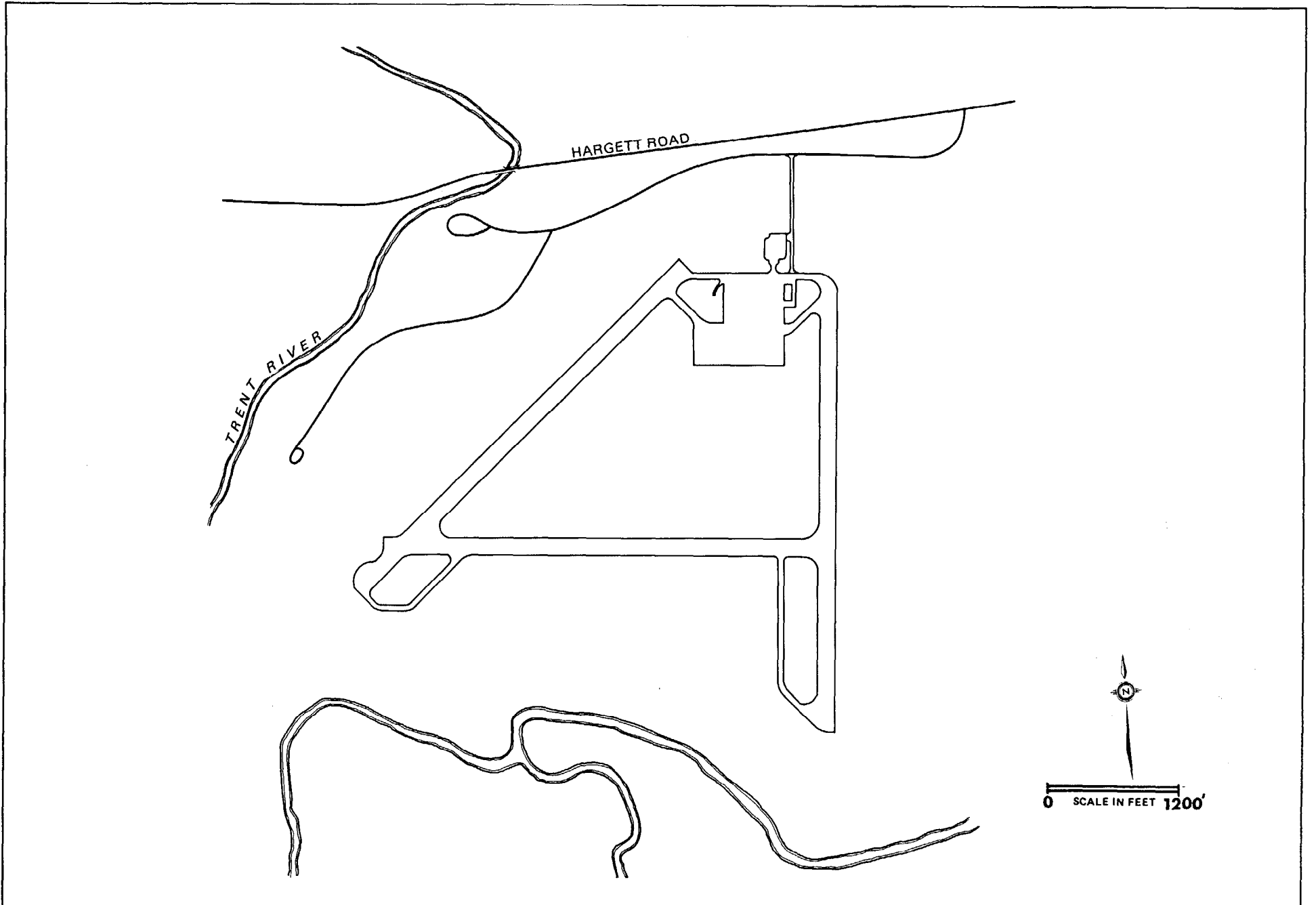
Species	Comment
MAMMALS	
Eastern cougar	Possible transient but not seen since 1974.
Florida manatee	Northern extreme of summer range.
Gray bat	Not in area.
Indiana bat	Not in area.
Atlantic right whale	Possible migrant offshore.
Finback whale	Possible migrant offshore.
Humpback whale	Possible migrant offshore.
Sei whale	Possible migrant offshore.
BIRDS	
American peregrine falcon	Possible but not common.
Arctic peregrine falcon	Possible.
Bald eagle	Not reported or seen.
Bachman's warbler	Possible migrant but not observed.
Kirtland's warbler	Possible migrant but not reported.
Eastern brown pelican	Reported in area.
Red-cockaded woodpecker	Frequent in area with known nesting areas.
FISH	
Shortnose sturgeon	Not observed recently.
Spotfin chub	Not in area.
REPTILES	
American alligator	Not probable.
Green turtle	Known nesting sites along coast.
Hawksbill turtle	Possible migrant offshore.
Kemp's Ridley turtle	Possible migrant offshore.
Leatherback turtle	Possible migrant offshore.
Loggerhead turtle	Known nesting sites along coast.
MOLLUSKS	
Noonday land snail	Not in area.
PLANTS	
Sagittaria fasciculata	Not in area.
Hudsonia montana	Not in area.

* Peterson, C., 1982.
Cooper, J.E., ed., 1977.
Parker, W. and L. Dixon, 1980.

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- Parker, W. and L. Dixon. 1980. Endangered and Threatened Wildlife of Kentucky, North Carolina, South Carolina, and Tennessee. North Carolina Agricultural Extension Service, Raleigh, N.C. 122 pp.
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HARGETT ROAD

TRENT RIVER



0 SCALE IN FEET 1200'

Construction of the base started in 1942

Outline

Camp Lejeune

(1)

Background Section

A. General - Camp Lejeune is located on the Coastal plain of North Carolina and occupies ~180 miles² acres in Onslow County. The base ^{was} originally authorized in the 1930's and land acquisition began in 1940. ^{(National Resource Impact Plan, 1975) H.G.} According to Col. Bisguth, who was part of the procurement team, the land was in private ownership and was purchased in about a year's time (personal comm. 1982)

Camp Lejeune complex composed of Marine Corps Base, MCAS - New River ^{and} Naval Regional Medical Center. Tenant commands - 2nd Marine Div; the Force Troops, Fleet Marine Force + Marine Air Groups 26 + 29. The base is bisected into north-south segments by the New River. This riverine system forms a large estuary (Onslow Bay) prior to emptying into the Atlantic. The Base has over 11 miles of beach along the Atlantic Ocean. U.S. 17 + NC State 24 form the western + northeastern boundaries. The city of Jacksonville is the northern boundary (Lejeune Station - 1978)

Marine Air Station on NW side of Camp Lejeune. Size is approx 2672 acres. Set up as a separate command in 1951. During Korean war used as a helicopter training base + launch + go training for jet fighters. Presently used for helicopter training. Formerly called Peterfield Point. Name changed in 1968 to MCAS - New River.

Oak Grove which is northwest of Camp Lejeune is under administrative control of MCAS - New River. The outlying field is no longer active and is under caretaker status. The property has some camping facilities. Recreational use must be arranged

Background

through Base Command. Limited use is also made for ground troop exercises + occasional helicopter landings.

Oak Grove is bounded by the Trent River on two sides. It is in the eastern part of Jones County, Has 976 acres. During World War II under jurisdiction of Cherry Point. At end of WWII all structures were destroyed except runway complex. In 1968 - Air Station at New River took over.

Graphics Camp Lejeune Report

1. Base Map entire Camp
2. Base map - Hardnut Point
3. Base Map - Red Station
4. Base Map - Oak Grove
5. Map showing drainage - adapted from master plan
6. Map showing topography -
7. Map of stratigraphy
8. Soils Map - for sites sets to be for confirmation
9. Map showing habitats on base - adaptation from master plan - ie locations of Red Catodod W.P., Turtle sightings
10. Maps of other areas - Tentative:
 - A. Geiger
 - B. Rifle Range
 - C. Construction
 - D.
11. Maps of individual sites.
12. Pictures of every site for confirmation
13. Map of snow of 1964.

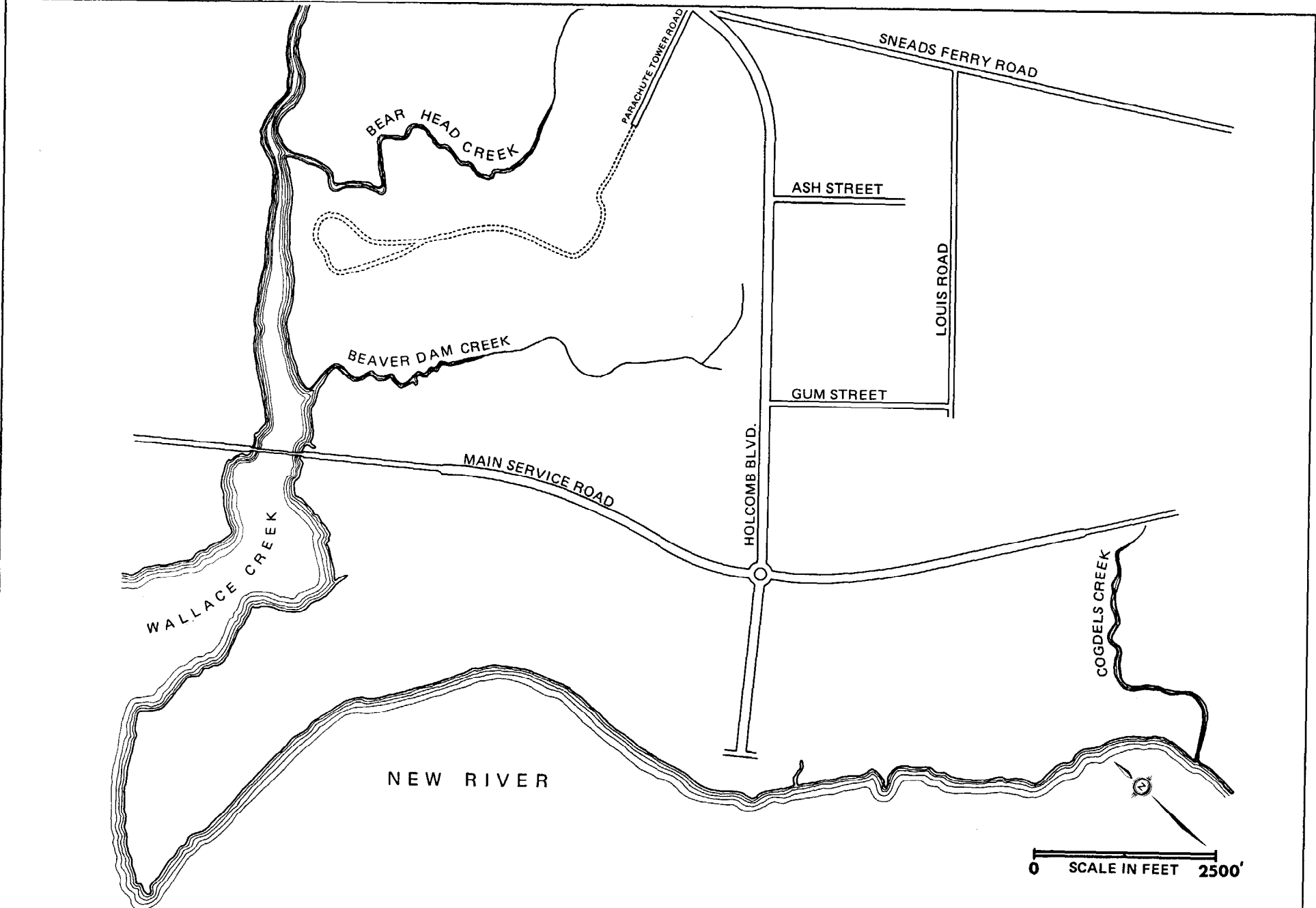


FIGURE 2

NAME OF SITE _____

LOCATION _____

DATE OF OPERATION OR OCCURRENCE _____

OWNER/OPERATOR _____

COMMENTS/DESCRIPTION _____

SITE RATED BY _____

-- I. RECEPTORS (see also table 1-1)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
A. Working population within 1,000 feet of site		4		12
B. Distance to nearest well		10		30
C. Land use/zoning within 1 mile radius		3		9
D. Distance to reservation boundary		6		18
E. Critical environments within 1 mile radius of site		10		30
F. Water quality of nearest surface water body		6		18
G. Ground water use of the aquifer of concern		9		27
H. Population served by surface water supply within 3 miles downstream of site		6		18
I. Population served by ground-water supply within 3 miles of site		6		18
Subtotals _____				180

Receptors subscore = (factor score subtotal/maximum score subtotal) _____

FIGURE 2 (Continued)

II. PATHWAYS (see also table 1-11)

Rating Factor	Factor Rating (0-3)	Multiplier	Factor Score	Maximum Possible Score
---------------	---------------------	------------	--------------	------------------------

A. If there is documented laboratory evidence of migration of hazardous contaminants away from the site in question, assign maximum factor subscore of 1 point for direct evidence. If direct evidence exists then proceed to C. If no evidence exists, proceed to B.

Subscore _____

B. Rate the migration potential for 3 potential pathways: surface water migration, flooding, and ground water migration. Select the highest rating, and proceed to C.

1. Surface water migration

Distance to nearest surface water		8		24
Net precipitation		6		18
Surface erosion		8		24
Soil permeability		6		18
Rainfall intensity		8		24

Subtotals _____ 108

Subscore = (factor score subtotal/maximum score subtotal) _____

2. Flooding _____

Subscore = (factor score/3) _____

3. Ground water migration

Depth to ground water		8		24
Net precipitation		6		18
Soil permeability		8		24
Subsurface flows		8		24
Direct access to ground water		8		24

Subtotals _____ 114

Subscore = (factor score subtotal/maximum score subtotal) _____

C. Highest pathway subscore.

Enter the highest subscore value from A, B-1, B-2 or B-3 above.

Pathways Subscore _____

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (see also table 1-III)

A.

Rating Factor	Factor Rating (0-3)	Multiplier	Weighted Factor
Waste Quantity		1	= Q
Acute Toxicity		8	= AT
Chronic Toxicity		8	= CT
Persistancy		6	= P
Flammability		4	= F
Reactivity		4	= R
Incompatability		5	= I
Corrosiveness		3	= C
Solubility		5	= S
Bioaccumulation		6	= B
Physical State		3	= PS
Years site was in use		1	= t
Years since site closed		1	= Δt

Weighted Factor = Factor Rating x Multiplier

FIGURE 2 (Continued)

III. WASTE CHARACTERISTICS (continued)

B. Take the weighted factors and multiply together as indicated below, then add the results together.

	<u>Score</u>	<u>Maximum Score</u>
AT x Q =		72
CT x Q =		72
C x Q =		27
F x Q =		36
R x Q =		36
S x Q =		45
PxQxΔt =		162
Bx(Δt+t)=		108
I x Q =		45
Subtotal=		<u>603</u>

Add Physical State Weighted Factor (figure 2-III A) and subtotal

$$\text{Subtotal} + \text{P. S.} = \text{Subscore A}$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$603 + 9 = 612 = \text{maximum subscore A}$$

Waste Characteristics Subscore = subscore A/maximum subscore A

$$= \underline{\hspace{2cm}}$$

General Note:

If data are not available or are known to be incomplete under Items I-A through I, II-B-1 or II-B-3, or III-A, then leave blank for calculation of factor score and maximum subscore (i.e. for calculation of the subscore divide the factor score by the maximum subscore minus the unknown item's maximum score).

FIGURE 2 (Continued)

IV. WASTE MANAGEMENT AND FINAL SCORE (see also table 1-IV)

- | | | | |
|--------------------------------|---|---|-------|
| A. Receptors Subscore | = | = | U_R |
| Pathways Subscore | = | = | U_P |
| Waste Characteristics Subscore | = | = | U_W |

Enter the above subscores in the equation:

$$\text{Site Subscore} = U_{\text{site}} = 100 (U_R)(U_P)(U_W)$$

$$= \underline{\hspace{2cm}}$$

- B. Apply factor for waste containment from waste management (table 1-IV)

$$\text{Site Subscore} \times \text{Waste Management} = \text{Final Score}$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Note: If Final Scores are tied for sites on one base, rate the sites according to the confidence level of the information.

- | <u>Confirmed Criteria</u> | <u>Suspected Criteria</u> |
|--|---|
| <ul style="list-style-type: none"> ● At least 2 verbal reports from interviews or written information from records. ● Knowledge of types and quantities of wastes generated by shops and other areas on base. ● Based on the above, a determination of the types and quantities of waste disposed of at the site. | <ul style="list-style-type: none"> ● One or no verbal reports or conflicting verbal reports, and no written information from records. ● Logic based on a knowledge of types and quantities of wastes generated at the base, and a history of past waste disposal practices indicate that these wastes were disposed of at the site. |

Confirmed sites would be above suspected sites in the ranking.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Secondary Lead:		
K069	Emission control dust/sludge from secondary lead smelting	(1)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	(7)
Veterinary Pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(7)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(7)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(7)
Ink Formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(7)
Coking:		
K060	Ammonia still lime sludge from coking operations	(7)
K067	Decanter tank tar sludge from coking operations	(7)

[261.32 amended by 45 FR 47833, July 16, 1980; 45 FR 72039, October 30, 1980; revised by 45 FR 74980, November 12, 1980; 46 FR 4617, January 16, 1981; 46 FR 27476, May 20, 1981]

§261.33 Discarded commercial chemical products, off-specification species, container residues, and residues thereof.

[261.33 revised by 45 FR 78541, November 25, 1980]

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraphs (e) or (f) of this section.

(c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic names listed in paragraph (e) of this section, or any container or inner liner removed

from a container that has been used to hold any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) of this section, unless:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate; or

(2) The container or inner liner has been cleansed by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(3) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

[The second 261.33(c) was revised by 45 FR 78541, November 25, 1980; 46 FR 27476, May 20, 1981]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which

[Sec. 261.33(d)]

the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either §§ 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this Part.]

[261.33(d) amended by 46 FR 27476, May 20, 1981]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in § 261.5(e).

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.] These wastes and their corresponding EPA Hazardous Waste Numbers are:

[261.33(e) amended by 46 FR 27476, May 20, 1981]

Hazardous waste No.	Substance
P023	Acetaldehyde, chloro-
P002	Acetamide, N-(aminothioxomethyl)-
P057	Acetamide, 2-fluoro-
P058	Acetic acid, fluoro-, sodium salt
P066	Acetimidic acid, N-(methylcarbamoyloxy)thio-, methyl ester
P001	3-(alpha-acetylbenzyl)-4-hydroxycoumarin and salts
P002	1-Acetyl-2-thiourea
P003	Acrolein
P070	Aldicarb
P004	Aldrin
P005	Allyl alcohol
P006	Aluminum phosphide
P007	5-(Aminomethyl)-3-isoxazolol
P008	4-aAminopyridine
P009	Ammonium picrate (R)
P119	Ammonium vanadate
P010	Arsenic acid
P012	Arsenic (III) oxide
P011	Arsenic (V) oxide
P011	Arsenic pentoxide
P012	Arsenic trioxide
P038	Arsine, diethyl-
P054	Azidine
P013	Barium cyanide
P024	Benzenamine, 4-chloro-
P077	Benzenamine, 4-nitro-
P028	Benzene, (chloromethyl)-
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-
P014	Benzenethiol
P028	Benzyl chloride
P015	Beryllium dust

Hazardous Waste No.	Substance
P016	Bis(chloromethyl) ether
P017	Bromoacetone
P018	Brucine
P021	Calcium cyanide
P123	Camphene, octachloro-
P103	Carbamimidoseleonic acid
P022	Carbon bisulfide
P022	Carbon disulfide
P095	Carbon chloride
P033	Chlorine cyanide
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P026	1-(o-Chlorophenyl)thiourea
P027	3-Chloropropionitrile
P029	Copper cyanides
P030	Cyanides (soluble cyanide salts), not elsewhere specified
P031	Cyanogen
P033	Cyanogen chloride
P036	Dichlorophenylarsine
P037	Dieldrin
P038	Diethylarsine
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate
P041	Diethyl-p-nitrophenyl phosphate
P040	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	Diisopropyl fluorophosphate
P044	Dimethoate
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate
P082	Dimethylnitrosamine
P046	alpha, alpha-Dimethylphenethylamine
P047	4,6-Dinitro-o-cresol and salts
P034	4,6-Dinitro-o-cyclohexylphenol
P048	2,4-Dinitrophenol
P020	Dimoseb
P085	Diphosphoramide, octamethyl-
P039	Disulfoton
P049	2,4-Dithiobiuret
P109	Orthiopyrophosphoric acid, tetraethyl ester
P050	Endosulfan
P088	Endothall
P051	Endrin
P042	Epinephrine
P046	Ethanamine, 1,1-dimethyl-2-phenyl-
P084	Ethanamine, N-methyl-N-nitroso-
P101	Ethyl cyanide
P054	Ethyleneimine
P097	Famphur
P056	Fluorine
P057	Fluoroacetamide
P058	Fluoroacetic acid, sodium salt
P065	Fulminic acid, mercury(II) salt (R,T)
P059	Heptachlor
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene
P060	Hexachlorohexahydro-exo,exo-dimethanonaphthalene
P062	Hexaethyl tetraphosphate
P116	Hydrazinecarbothioamide
P068	Hydrazine, methyl-
P063	Hydrocyanic acid
P063	Hydrogen cyanide
P096	Hydrogen phosphide
P064	Isocyanic acid, methyl ester
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-
P092	Mercury, (acetato-O)phenyl-
P065	Mercury fulminate (R,T)
P016	Methane, oxybis(chloro-
P112	Methane, tetranitro- (R)
P118	Methanethiol, trichloro-
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-
P066	Methomyl
P067	2-Methylaziridine
P068	Methyl hydrazine
P064	Methyl isocyanate

Hazardous Waste No.	Substance
P069	2-Methylactonitrile
P071	Methyl parathion
P072	alpha-Naphthylthiourea
P073	Nickel carbonyl
P074	Nickel cyanide
P074	Nickel(II) cyanide
P073	Nickel tetracarbonyl
P075	Nicotine and salts
P026	Nitric oxide
P077	p-Nitroaniline
P078	Nitrogen dioxide
P076	Nitrogen(II) oxide
P078	Nitrogen(IV) oxide
P081	Nitroglycerine (R)
P082	N-Nitrosodimethylamine
P084	N-Nitrosomethylvinylamine
P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite
P085	Octamethylpyrophosphoramide
P087	Osmium oxide
P087	Osmium tetroxide
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	Parathion
P034	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	Phenol, 2,4-dinitro-
P047	Phenol, 2,4-dinitro-6-methyl-
P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-
P009	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P036	Phenyl dichloroarsine
P092	Phenylmercuric acetate
P093	N-Phenylthiourea
P094	Phorate
P095	Phosgene
P096	Phosphine
P041	Phosphoric acid, diethyl p-nitrophenyl ester
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043	Phosphorofluoric acid, bis(1-methylethyl)-ester
P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester
P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester
P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	Phosphorothioic acid, O,O-dimethyl O-(p-(dimethylamino)-sultonyl)phenyl]ester
P110	Plumbane, tetraethyl-
P098	Potassium cyanide
P099	Potassium silver cyanide
P070	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	Propanenitrile
P027	Propanenitrile, 3-chloro-
P069	Propanenitrile, 2-hydroxy-2-methyl-
P081	1,2,3-Propanetriol, trinitrate- (R)
P017	2-Propanone, 1-bromo-
P102	Propargyl alcohol
P003	2-Propanal
P005	2-Propen-1-ol
P067	1,2-Propylenimine
P102	2-Propyn-1-ol
P008	4-Pyridinamine
P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts
P111	Pyrophosphoric acid, tetraethyl ester
P103	Selenourea
P104	Silver cyanide
P105	Sodium azide
P106	Sodium cyanide
P107	Strontium sulfide
P108	Strychnidin-10-one, and salts
P018	Strychnidin-10-one, 2,3-dimethoxy-
P108	Strychnine and salts
P115	Sulfuric acid, thallium(I) salt
P109	Tetraethyldithiopyrophosphate
P110	Tetraethyl lead
P111	Tetraethylpyrophosphate
P112	Tetranitromethane (R)
P062	Tetraphosphoric acid, hexaethyl ester
P113	Thalic oxide
P113	Thallium(III) oxide
P114	Thallium(I) selenite
P115	Thallium(I) sulfate
P045	Thiofanox
P049	Thiomidodicarbonic diamide

Hazardous waste No.	Substance
P014	Thiophenol
P116	Thiosemicarbazide
P026	Thiourea, (2-chlorophenyl)-
P072	Thiourea, 1-naphthalenyl-
P083	Thiourea, phenyl-
P123	Toxaphene
P118	Trichloromethanethiol
P119	Vanadic acid, ammonium salt
P120	Vanadium pentoxide
P120	Vanadium(V) oxide
P001	Wartarin
P121	Zinc cyanide
P122	Zinc phosphide (R,T)

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in § 261.5 (a) and (f).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.] These wastes and their corresponding EPA Hazardous Waste Numbers are:

[261.33(f) amended by 46 FR 27476, May 20, 1981]

Hazardous Waste No.	Substance
U001	Acetaldehyde (I)
U034	Acetaldehyde, trichloro-
U187	Acetamide, N-(4-ethoxyphenyl)-
U005	Acetamide, N-9H-fluoren-2-yl-
U112	Acetic acid, ethyl ester (I)
U144	Acetic acid, lead salt
U214	Acetic acid, thallium(I) salt
U002	Acetone (I)
U003	Acetonitrile (I,T)
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride (C,R,T)
U007	Acrylamide
U008	Acrylic acid (I)
U009	Acrylonitrile
U150	Alanine, 3-[p-bis(2-chloroethyl)amino]-phenyl-, L-
U011	Amitrole
U012	Aniline (I,T)
U014	Auramine
U015	Azaserine
U010	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-[(aminocarbonyl)oxymethyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-,
U157	Benz[<i>f</i>]aceanthrylene, 1,2-dihydro-3-methyl-,
U016	Benz[<i>c</i>]acridine
U016	3,4-Benzacridine
U017	Benzal chloride
U018	Benz[<i>a</i>]anthracene
U018	1,2-Benzanthracene
U084	1,2-Benzanthracene, 7,12-dimethyl-
U012	Benzenamine (I,T)
U014	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-

Hazardous waste No.	Substance
U049	Benzenamine, 4-chloro-2-methyl-
U093	Benzenamine, N,N'-dimethyl-4-nhenylazo-
U158	Benzenamine, 4,4'-methylenebis(2-chloro-
U222	Benzenamine, 2-methyl-, hydrochloride
U181	Benzenamine, 2-methyl-5-nitro
U019	Benzene (I,T)
U038	Benzenesulfonic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester
U030	Benzene, 1-bromo-4-phenoxy-
U037	Benzene, chloro-
U190	1,2-Benzenedicarboxylic acid anhydride
U028	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	1,2-Benzenedicarboxylic acid, diethyl ester
U102	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester
U070	Benzene, 1,2-dichloro-
U071	Benzene, 1,3-dichloro-
U072	Benzene, 1,4-dichloro-
U017	Benzene, (dichloromethyl)-
U223	Benzene, 1,3-dicyanatomethyl- (R,T)
U239	Benzene, dimethyl-(I,T)
U201	1,3-Benzene-diol
U127	Benzene, hexachloro-
U056	Benzene, hexahydro- (I)
U188	Benzene, hydroxy-
U220	Benzene, methyl-
U105	Benzene, 1-methyl-1,2,4-dinitro-
U106	Benzene, 1-methyl-2,6-dinitro-
U203	Benzene, 1,2-methylenedioxy-4-allyl-
U141	Benzene, 1,2-methylenedioxy-4-propenyl-
U080	Benzene, 1,2-methylenedioxy-4-propyl-
U055	Benzene, (1-methylethyl)- (I)
U169	Benzene, nitro- (I,T)
U183	Benzene, pentachloro-
U185	Benzene, pentachloro-nitro-
U020	Benzenesulfonic acid chloride (C,R)
U020	Benzenesulfonyl chloride (C,R)
U207	Benzene, 1,2,4,5-tetrachloro-
U023	Benzene, (trichloromethyl)-(C,R,T)
U234	Benzene, 1,3,5-trinitro- (R,T)
U021	Benzidine
U202	1,2-Benzothiazolo[3-one, 1,1-dioxide
U120	Benzo[<i>k</i>]fluorene
U022	Benzo[<i>a</i>]pyrene
U022	3,4-Benzopyrene
U197	p-Benzoquinone
U023	Benzotrifluoride (C,R,T)
U050	1,2-Benzophenanthrene
U085	2,2'-Bioxirane (I,T)
U021	(1,1'-Biphenyl)-4,4'-diamine
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U081	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U085	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
U024	Bis(2-chloroethoxy) methane
U027	Bis(2-chloroisopropyl) ether
U244	Bis(dimethylthiocarbamoyl) disulfide
U028	Bis(2-ethylhexyl) phthalate
U246	Bromine cyanide
U225	Bromoform
U030	4-Bromophenyl phenyl ether
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	1-Butanamine, N-butyl-N-nitroso-
U035	Butanoic acid, 4-[Bis(2-chloroethyl)amino]benzene-
U031	1-Butanol (I)
U159	2-Butanone (I,T)
U160	2-Butanone peroxide (R,T)
U053	2-Butenal
U074	2-Butene, 1,4-dichloro- (I,T)
U031	n-Butyl alcohol (I)
U136	Cacodylic acid
U032	Calcium chromate
U238	Carbamic acid, ethyl ester
U178	Carbamic acid, methylnitroso-, ethyl ester
U176	Carbamide, N-ethyl-N-nitroso-
U177	Carbamide, N-methyl-N-nitroso-
U219	Carbamide, thio-
U097	Carbamoyl chloride, dimethyl-
U215	Carbonic acid, diethidium(I) salt
U156	Carbochloric acid, methyl ester (I,T)

Hazardous waste No.	Substance
U033	Carbon oxyfluoride (R,T)
U211	Carbon tetrachloride
U039	Carbonyl fluoride (R,T)
U034	Chloral
U035	Chlorambucil
U036	Chlordane, technical
U026	Chlormaphazine
U037	Chlorobenzene
U039	4-Chloro-m-cresol
U041	1-Chloro-2,3-epoxypropene
U042	2-Chloroethyl vinyl ether
U044	Chloroform
U046	Chloromethyl methyl ether
U047	beta-Chlorophenyl ether
U048	o-Chlorophenol
U049	4-Chloro-o-toluidine, hydrochloride
U032	Chromic acid, calcium salt
U050	Chrysene
U051	Creosote
U052	Creosol
U052	Cresylic acid
U053	Crotonaldehyde
U055	Cumene (I)
U246	Cyanogen bromide
U197	1,4-Cyclohexadienedione
U056	Cyclohexane (I)
U057	Cyclohexanone (I)
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	Cyclophosphamide
U240	2,44-D, salts and esters
U058	Daunomycin
U060	DDD
U081	DDT
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[<i>c,d</i>]-pentalen-2-one
U062	Diallate
U133	Diamine (R,T)
U221	Diaminotoluene
U063	Dibenz[<i>a,h</i>]anthracene
U063	1,2,5,6-Dibenzanthracene
U064	1,2,7,8-Dibenzopyrene
U064	Dibenz[<i>a,i</i>]pyrene
U068	1,2-Dibromo-3-chloropropane
U068	Dibutyl phthalate
U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene (I,T)
U075	Dichlorodifluoromethane
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propenyl) benzamide
U060	Dichloro diphenyl dichloroethane
U061	Dichloro diphenyl trichloroethane
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U025	Dichloroethyl ether
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U240	2,4-Dichlorophenoxyacetic acid, salts and esters
U083	1,2-Dichloropropane
U084	1,3-Dichloropropane
U085	1,2,3,4-Diepoxybutane (I,T)
U108	1,4-Dichloro ethylene dioxide
U088	N,N-Diethylhydrazine
U087	O,O-Diethyl-S-methyl-dithiophosphate
U088	Diethyl phthalate
U089	Diethylstilbestrol
U148	1,2-Dihydro-3,6-pyridinedione
U090	Dihydrosofrole
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (I)
U093	Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[<i>a</i>]anthracene
U095	3,3'-Dimethylbenzidine
U096	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U089	1,2-Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate

[Sec. 261.33(f)]

Hazardous Waste No.	Substance	Hazardous Waste No.	Substance	Hazardous Waste No.	Substance
U103	Dimethyl sulfate	U143	Lasiocarpine	U058	2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloro-ethylamino)tetrahydro-, oxide 2-
U105	2,4-Dinitrotoluene	U144	Lead acetate	U115	Oxirane (I,T)
U106	2,6-Dinitrotoluene	U145	Lead phosphate	U041	Oxirane, 2-(chloromethyl)-
U107	D,N-octyl phthalate	U146	Lead subacetate	U182	Parsidehyde
U108	1,4-Dioxane	U129	Lead sulfide	U183	Pentachlorobenzene
U109	1,2-Diphenylhydrazine	U147	Lead sulfite	U184	Pentachloroethane
U110	Dipropylamine (I)	U148	Lead selenite	U185	Pentachloronitrobenzene
U111	D,N-propylnitrosamine	U149	Lead selenate	U242	Pentachlorophenol
U001	Ethanal (I)	U150	Lead stannite	U186	1,3-Pentadiene (I)
U174	Ethanamine, N-ethyl-N-nitroso-	U151	Lead stannate	U187	Phenacetin
U087	Ethene, 1,2-dibromo-	U152	Lead tellurite	U188	Phenol
U076	Ethene, 1,1-dichloro-	U092	Lead tellurate	U048	Phenol, 2-chloro-
U077	Ethene, 1,2-dichloro-	U029	Lead tellurate	U039	Phenol, 4-chloro-3-methyl-
U114	1,2-Ethanedithiocarbamodithioic acid	U045	Methane, bromo- (I,T)	U081	Phenol, 2,4-dichloro-
U131	Ethene, 1,1,2,2,2-hexachloro-	U046	Methane, chloromethoxy-	U082	Phenol, 2,6-dichloro-
U024	Ethene, 1,1'-[methylenebis(oxy)]bis[2-chloro-	U068	Methane, dibromo-	U101	Phenol, 2,4-dimethyl-
U003	Ethanenitrile (I, T)	U080	Methane, dichloro-	U170	Phenol, 4-nitro-
U117	Ethene, 1,1'-oxybis- (I)	U075	Methane, dichlorodifluoro-	U242	Phenol, pentachloro-
U025	Ethene, 1,1'-oxybis[2-chloro-	U138	Methane, iodo-	U212	Phenol, 2,3,4,6-tetrachloro-
U184	Ethene, pentachloro-	U119	Methane, iodo-	U230	Phenol, 2,4,5-trichloro-
U208	Ethene, 1,1,1,2-tetrachloro-	U211	Methanesulfonic acid, ethyl ester	U231	Phenol, 2,4,6-trichloro-
U209	Ethene, 1,1,2,2-tetrachloro-	U121	Methane, tetrachloro-	U137	1,10-(1,2-phenylene)pyrene
U218	Ethanedithioamide	U153	Methane, trichloro-	U145	Phosphoric acid, Lead salt
U227	Ethene, 1,1,2-trichloro-	U225	Methane, tribromo-	U087	Phosphorodithioic acid, 0,0-diethyl-, S-methyl ester
U247	Ethene, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)-	U044	Methane, trichloro-		
U043	Ethene, chloro-	U121	Methane, trichlorofluoro-		
U042	Ethene, 2-chloroethoxy-	U123	Methanolic acid (C,T)		
U078	Ethene, 1,1-dichloro-	U036	4,7-Methanoidan, 1,2,4,5,6,7,8,8-octa-chloro-3a,4,7,7a-tetrahydro-		
U079	Ethene, trans-1,2-dichloro-	U154	Methanol (I)	U189	Phosphorous sulfide (R)
U210	Ethene, 1,1,2,2-tetrachloro-	U155	Methacrylonitrile (I,T)	U190	Phthalic anhydride
U179	Ethanol, 2,2-(nitrosamino)bis-	U247	Methoxychlor	U191	2-Picoline
U004	Ethanone, 1-phenyl-	U154	Methyl alcohol (I)	U192	Promazine
U006	Ethanol chloride (C,R,T)	U029	Methyl bromide	U194	1-Propanamine (I,T)
U112	Ethyl acetate (I)	U186	1-Methylbutadiene (I)	U110	1-Propanamine, N-propyl- (I)
U113	Ethyl acrylate (I)	U045	Methyl chloride (I,T)	U088	Propane, 1,2-dibromo-3-chloro-
U238	Ethyl carbamate (urethan)	U156	Methyl chlorocarbonate (I,T)	U149	Propanedinitrile
U038	Ethyl 4,4'-dichlorobenzilate	U226	Methylchloroform	U171	Propane, 2-nitro- (I)
U114	Ethylenebis(dithiocarbamic acid)	U157	3-Methylcholanthrene	U027	Propane, 2,2'-oxybis[2-chloro-
U067	Ethylene dibromide	U158	4,4'-Methylenebis(2-chloroaniline)	U193	1,3-Propane sulfone
U077	Ethylene dichloride	U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U115	Ethylene oxide (I,T)	U068	Methylene bromide	U126	1-Propanol, 2,3-epoxy-
U116	Ethylene thioether	U080	Methylene chloride	U140	1-Propanol, 2-methyl-, (I,T)
U117	Ethyl ether (I)	U122	Methylene oxide	U002	2-Propanone (I)
U078	Ethylidene dichloride	U159	Methyl ethyl ketone (I,T)	U007	2-Propanamide
U118	Ethylmethacrylate	U160	Methyl ethyl ketone peroxide (R,T)	U084	Propene, 1,3-dichloro-
U119	Ethyl methanesulfonate	U138	Methyl iodide	U243	1-Propene, 1,1,2,3,3,3-hexachloro-
U139	Ferric dextran	U161	Methyl isobutyl ketone (I)	U009	2-Propanenitrile
U120	Fluoranthene	U162	Methyl methacrylate (I,T)	U152	2-Propanenitrile, 2-methyl-, (I,T)
U122	Formaldehyde	U163	N-Methyl-N-nitro-N-nitrosoguanidine	U008	2-Propenoic acid (I)
U123	Formic acid (C,T)	U161	4-Methyl-2-pentanone (I)	U113	2-Propenoic acid, ethyl ester (I)
U124	Furan (I)	U184	Methylthiourea	U118	2-Propenoic acid, 2-methyl-, ethyl ester
U125	2-Furancarboxaldehyde (I)	U010	Mitomycin C	U162	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U147	2,5-Furandione	U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-xylohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	U233	Propionic acid, 2-(2,4,5-trichlorophenoxy)-n-Propylamine (I,T)
U213	Furan, tetrahydro- (I)	U165	Naphthalene	U194	n-Propylamine (I,T)
U125	Furfural (I)	U047	Naphthalene, 2-chloro-	U083	Propylene dichloride
U124	Furfuran (I)	U166	1,4-Naphthalenedione	U196	Pyridine
U206	D-Glucopyranose, 2-deoxy-2[3-methyl-3-nitrosoureido]-	U236	2,7-Naphthalenedisulfonic acid, 3,3'-(3,3'-dimethyl-(1,1'-biphenyl-4,4'-diyl))-bis (azo)bis(5-amino-4-hydroxy)-, tetrasodium salt	U155	Pyridine, 2-[(2-(dimethylamino)-2-thenylamino)-2-thioxo-
U126	Glycidylaldehyde	U168	1,4-Naphthoquinone	U179	Pyridine, hexahydro-N-nitroso-
U183	Guanidine, N-nitroso-N-methyl-N-nitro-	U167	1-Naphthylamine	U191	Pyridine, 2-methyl-
U127	Hexachlorobenzene	U168	2-Naphthylamine	U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U128	Hexachlorobutadiene	U167	alpha-Naphthylamine		
U129	Hexachlorocyclohexane (gamma isomer)	U168	beta-Naphthylamine		
U130	Hexachlorocycloperitadiene	U026	2-Naphthylamine, N,N'-bis[2-chloro-methyl-		
U131	Hexachloroethane	U169	Nitrobenzene (I,T)		
U132	Hexachloropropene	U170	p-Nitrophenol		
U243	Hexachloropropene	U171	2-Nitropropane (I)		
U133	Hydrazine (R,T)	U172	N-Nitrosodi-n-butylamine		
U086	Hydrazine, 1,2-diethyl-	U173	N-Nitrosodipropylamine		
U096	Hydrazine, 1,1-dimethyl-	U174	N-Nitrosodimethylamine		
U099	Hydrazine, 1,2-dimethyl-	U111	N-Nitroso-N-propylamine		
U100	Hydrazine, 1,2-diphenyl-	U176	N-Nitroso-N-ethylurea		
U154	Hydrofluoric acid (C,T)	U177	N-Nitroso-N-methylurea		
U134	Hydrogen fluoride (C,T)	U178	N-Nitroso-N-methylurethane		
U135	Hydrogen sulfide	U179	N-Nitrosopiperidine		
U089	Hydroperoxide, 1-methyl-1-phenylethyl- (R)	U180	N-Nitrosopyrrolidine		
U138	Hydroxydimethylarsine oxide	U181	5-Nitro-2-pyridone		
U116	2-Imidazolidinethione	U183	1,2-Dioxane, 2,2-dioxide		
U137	Indeno[1,2,3-cd]pyrene				
U155	Iron dextran				
U140	Isobutyl alcohol (I,T)				
U141	Isoethane				
U142	Kepone				

**ENVIRONMENTAL PROTECTION AGENCY REGULATIONS ON
DETERMINATION OF REPORTABLE QUANTITIES FOR
HAZARDOUS SUBSTANCES**

(40 CFR 117; 44 FR 50776, August 29, 1979, Effective September 28, 1979;
Corrected by 44 FR 58711, October 11, 1979; 44 FR 58910, October 12, 1979; 44 FR
65400, November 13, 1979)

[Editor's note: EPA August 29, 1979, indefinitely deferred the effective date of these regulations for common carriers who are precluded by federal law from obtaining data on whether their cargoes include hazardous substances (44 FR 50766). EPA September 17, 1980, said that common carriers will be required to report discharges of hazardous substances beginning November 20, 1980 (45 FR 61617).

Moreover, promulgation of this part effectively lifts the Federal Maritime Commission's stay of applicable provisions of 46 CFR 542, pertaining to financial liability for discharges of hazardous substances. The commission's rules have the same effective date as this part. (See editor's note at end of 46 CFR 542, published at page 131:1101.)

EPA September 17, 1979, postponed applicability and enforcement of these regulations for lime, pending final action regarding the continued designation of calcium oxide and calcium hydroxide as hazardous substances (44 FR 53749). The agency November 13, 1979, deleted these chemicals from the hazardous substances list.]

**PART 117—DETERMINATION OF
REPORTABLE QUANTITIES FOR
HAZARDOUS SUBSTANCES**

Subpart A—General Provisions

Sec.

- 117.1 Definitions.
- 117.2 Abbreviations.
- 117.3 Determination of reportable quantities.

Subpart B—Applicability

- 117.11 General applicability.
- 117.12 Applicability to discharges from facilities with NPDES permits.
- 117.13 Applicability to discharges from publicly owned treatment works and their users.
- 117.14 Demonstration projects.

Subpart C—Notice of Discharge of a Reportable Quantity

- 117.21 Notice.
- 117.22 Penalties.
- 117.23 Liabilities for removal.

Authority: Secs. 311 and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), ("the Act") and Executive Order 11735.

Subpart A—General Provisions

§ 117.1 Definitions.

As used in this part, all terms shall have the meanings stated in 40 CFR Part 116.

(a) "Reportable quantities" means quantities that may be harmful as set forth in § 117.3, the discharge of which is a violation of section 311(b)(3) and requires notice as set forth in § 117.21.

(b) "Administrator" means the Administrator of the Environmental Protection Agency ("EPA").

(c) "Mobile source" means any vehicle, rolling stock, or other means of transportation which contains or carries a reportable quantity of a hazardous substance.

(d) "Public record" means the NPDES permit application or the NPDES permit itself and the "record for final permit" as defined in 40 CFR 124.122.

(e) "National Pretreatment Standard" or "Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Act, which applies to industrial users of a publicly owned treatment works. It further means any State or local pretreatment requirement applicable to a discharge and which is incorporated into a permit issued to a publicly owned treatment works under section 402 of the Act.

(f) "Publicly Owned Treatment Works" or "POTW" means a treatment

works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any sewers that convey wastewater to such a treatment works, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(g) "Remove" or "removal" refers to removal of the oil or hazardous substances from the water and shoreline or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

(h) "Contiguous zone" means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone.

(i) "Navigable waters" means "waters of the United States, including the territorial seas." This term includes:

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) Interstate waters, including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams, (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation or destruction of which would affect or could affect interstate or

[Sec. 117.1(i)(3)]

foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as navigable waters under this paragraph;

(5) Tributaries of waters identified in paragraphs (i)(1)-(4) of this section, including adjacent wetlands; and

(6) Wetlands adjacent to waters identified in paragraphs (i)(1)-(5) of this section ("Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally included playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds): *Provided*, That waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

(j) "Process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

§ 117.2 Abbreviations.

NPDES equals National Pollutant Discharge Elimination System. RQ equals reportable quantity.

§ 117.3 Determination of reportable quantities.

The quantity listed with each substance in Table 117.3 is determined to be the reportable quantity for that substance.

Table 117.3—Reportable Quantities of Hazardous Substances

Note.—The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column

headed "Category" which lists the code letters "X", "A", "B", "C" and "D" associated with reportable quantities of 1, 10, 100, 1000 and 5000 pounds respectively.

Material	Category	RQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454)
Acetic acid	C	1,000 (454)
Acetic anhydride	C	1,000 (454)
Acetone cyanohydrin	A	10 (4.54)
Acetyl bromide	D	5,000 (2,270)
Acetyl chloride	D	5,000 (2,270)
Acrolein	X	1 (0.454)
Acrylonitrile	B	100 (45.4)
Adipic acid	D	5,000 (2,270)
Aldrin	X	1 (0.454)
Allyl alcohol	B	100 (45.4)
Allyl chloride	C	1,000 (454)
Aluminum sulfate	D	5,000 (2,270)
Ammonia	B	100 (45.4)
Ammonium acetate	D	5,000 (2,270)
Ammonium benzoate	D	5,000 (2,270)
Ammonium bicarbonate	D	5,000 (2,270)
Ammonium bichromate	C	1,000 (454)
Ammonium bifluoride	D	5,000 (2,270)
Ammonium bisulfite	D	5,000 (2,270)
Ammonium carbamate	D	5,000 (2,270)
Ammonium carbonate	D	5,000 (2,270)
Ammonium chloride	D	5,000 (2,270)
Ammonium chromate	C	1,000 (454)
Ammonium citrate	D	5,000 (2,270)
Ammonium fluoroborate	D	5,000 (2,270)
Ammonium fluoride	D	5,000 (2,270)
Ammonium hydroxide	C	1,000 (454)
Ammonium oxalate	D	5,000 (2,270)
Ammonium silicofluoride	C	1,000 (454)
Ammonium sulfamate	D	5,000 (2,270)
Ammonium sulfide	D	5,000 (2,270)
Ammonium sulfite	D	5,000 (2,270)
Ammonium tartrate	D	5,000 (2,270)
Ammonium thiocyanate	D	5,000 (2,270)
Ammonium thiosulfate	D	5,000 (2,270)
Amyl acetate	C	1,000 (454)
Aniline	C	1,000 (454)
Antimony pentachloride	C	1,000 (454)
Antimony potassium tartrate	C	1,000 (454)
Antimony tribromide	C	1,000 (454)
Antimony trichloride	C	1,000 (454)
Antimony trifluoride	C	1,000 (454)
Antimony trioxide	D	5,000 (2,270)
Arsenic disulfide	D	5,000 (2,270)
Arsenic pentoxide	D	5,000 (2,270)
Arsenic trichloride	D	5,000 (2,270)
Arsenic trioxide	D	5,000 (2,270)
Arsenic trisulfide	D	5,000 (2,270)
Barium cyanide	A	10 (4.54)
Benzene	D	1,000 (454)
Benzoic acid	C	5,000 (2,270)
Benzonitrile	C	1,000 (454)
Benzoyl chloride	C	1,000 (454)
Benzyl chloride	B	100 (45.4)
Beryllium chloride	D	5,000 (2,270)
Beryllium fluoride	D	5,000 (2,270)
Beryllium nitrate	D	5,000 (2,270)
Butyl acetate	D	5,000 (2,270)
n-Butyl phthalate	B	100 (45.4)
Butylamine	C	1,000 (454)
Butyric acid	D	5,000 (2,270)
Cadmium acetate	B	100 (45.4)
Cadmium bromide	B	100 (45.4)
Cadmium chloride	B	100 (45.4)
Calcium arsenate	C	1,000 (454)
Calcium arsenite	C	1,000 (454)
Calcium carbide	D	5,000 (2,270)
Calcium chromate	D	1,000 (454)
Calcium cyanide	A	10 (4.54)
Calcium	C	1,000 (454)
dodecylbenzenesulfonate		
Calcium hypochlorite	B	100 (45.4)
Caplan	A	10 (4.54)

Material	Category	RQ in pounds (kilograms)
Carbaryl	B	100 (45.4)
Carbofuran	A	10 (4.54)
Carbon disulfide	D	5,000 (2,270)
Carbon tetrachloride	D	5,000 (2,270)
Chlordane	X	1 (0.454)
Chlorine	A	10 (4.54)
Chlorobenzene	B	100 (45.4)
Chloroform	D	5,000 (2,270)
Chlorpyrifos	X	1 (0.454)
Chlorosulfonic acid	C	1,000 (454)
Chromic acetate	C	1,000 (454)
Chromic acid	C	1,000 (454)
Chromic sulfate	C	1,000 (454)
Chromous chloride	C	1,000 (454)
Cobaltous bromide	C	1,000 (454)
Cobaltous formate	C	1,000 (454)
Cobaltous sulfamate	C	1,000 (454)
Coumaphos	A	10 (4.54)
Creosol	C	1,000 (454)
Crotonaldehyde	B	100 (45.4)
Cupric acetate	B	100 (45.4)
Cupric acetoacrylate	B	100 (45.4)
Cupric chloride	A	10 (4.54)
Cupric nitrate	B	100 (45.4)
Cupric oxalate	A	100 (45.4)
Cupric sulfate	B	100 (45.4)
Cupric sulfate ammoniated	B	100 (45.4)
Cupric tartrate	B	100 (45.4)
Cyanogen chloride	A	10 (4.54)
Cyclohexane	C	1,000 (454)
2,4-D Acid	B	100 (45.4)
2,4-D Esters	B	100 (45.4)
DDT	X	1 (0.454)
Diazinon	X	1 (0.454)
Dicamba	C	1,000 (454)
Dichobanil	C	1,000 (454)
Dichloro	X	1 (0.454)
Dichlorobenzene	B	100 (45.4)
Dichloropropane	D	5,000 (2,270)
Dichloropropene	D	5,000 (2,270)
Dichloropropene	D	5,000 (2,270)
Dichloropropene Mixture		
2,2-Dichloropropionic acid	D	5,000 (2,270)
Dichlorvos	A	10 (4.54)
Dieldrin	X	1 (0.454)
Diethylamine	C	1,000 (454)
Dimethylamine	C	1,000 (454)
Dinitrobenzene	C	1,000 (454)
Dinitrophenol	C	1,000 (454)
Dinitrotoluene	C	1,000 (454)
Diquat	C	1,000 (454)
Disulfoton	X	1 (0.454)
Diuron	B	100 (45.4)
Dodecylbenzenesulfonic acid	C	1,000 (454)
Endosulfan	X	1 (0.454)
Endrin	X	1 (0.454)
Epichlorohydrin	C	1,000 (454)
Ethion	A	10 (4.54)
Ethylbenzene	C	1,000 (454)
Ethylenediamine	C	1,000 (454)
Ethylene dibromide	C	1,000 (454)
Ethylene dichloride	D	5,000 (2,270)
EDTA	D	5,000 (2,270)
Ferric ammonium citrate	C	1,000 (454)
Ferric ammonium oxalate	C	1,000 (454)
Ferric chloride	C	1,000 (454)
Ferric fluoride	B	100 (45.4)
Ferric nitrate	C	1,000 (454)
Ferric sulfate	C	1,000 (454)
Ferrous ammonium sulfate	C	1,000 (454)
Ferrous chloride	B	100 (45.4)
Ferrous sulfate	C	1,000 (454)
Formaldehyde	C	1,000 (454)
Formic acid	D	5,000 (2,270)
Fumaric acid	D	5,000 (2,270)
Furfural	C	1,000 (454)
Guthion	X	1 (0.454)
Heptachlor	X	1 (0.454)
Hexachlorocyclopentadiene	X	1 (0.454)
Hydrochloric acid	D	5,000 (2,270)
Hydrofluoric acid	D	5,000 (2,270)

Material	Category	Reportable Quantity (pounds)
Hydrogen cyanide	A	10 (4.54)
Hydrogen sulfide	B	100 (45.4)
Isoprene	C	1,000 (454)
Isopropylamine	C	1,000 (454)
dodecylbenzenesulfonate	D	5,000 (2,270)
Ketthane	D	5,000 (2,270)
Kepon	X	1 (0.454)
Lead acetate	D	5,000 (2,270)
Lead arsenate	D	5,000 (2,270)
Lead chloride	D	5,000 (2,270)
Lead fluoride	D	5,000 (2,270)
Lead fluoride	D	5,000 (2,270)
Lead iodide	D	5,000 (2,270)
Lead nitrate	D	5,000 (2,270)
Lead stearate	D	5,000 (2,270)
Lead sulfate	D	5,000 (2,270)
Lead sulfide	D	5,000 (2,270)
Lead thiocyanate	D	5,000 (2,270)
Lindane	X	1 (0.454)
Lithium chromate	C	1,000 (454)
Malathion	A	10 (4.54)
Maleic acid	D	5,000 (2,270)
Maleic anhydride	D	5,000 (2,270)
Mercaptodimethyl	B	100 (45.4)
Mercupic cyanide	X	1 (0.454)
Mercupic nitrate	A	10 (4.54)
Mercuric sulfide	A	10 (4.54)
Mercuric thiocyanate	A	10 (4.54)
Mercurous nitrate	A	10 (4.54)
Methoxychlor	X	1 (0.454)
Methyl mercaptan	B	100 (45.4)
Methyl methacrylate	D	5,000 (2,270)
Methyl parathion	B	100 (45.4)
Mevinphos	X	1 (0.454)
Mexcarbamate	C	1,000 (454)
Monoethylamine	C	1,000 (454)
Monomethylamine	C	1,000 (454)
Naled	A	10 (4.54)
Naphthalene	D	5,000 (2,270)
Naphthoic acid	B	100 (45.4)
Nickel ammonium sulfate	D	5,000 (2,270)
Nickel chloride	D	5,000 (2,270)
Nickel hydroxide	C	1,000 (454)
Nickel nitrate	D	5,000 (2,270)
Nickel sulfate	D	5,000 (2,270)
Nitric acid	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrogen dioxide	C	1,000 (454)
Nitrophenol	C	1,000 (454)
Nitrotoxene	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)
Parathion	X	1 (0.454)
Pentachlorophenol	A	10 (4.54)
Phenol 2,4,6-tri	C	1,000 (454)
Phosgene	D	5,000 (2,270)
Phosphoric acid	D	5,000 (2,270)
Phosphorus	X	1 (0.454)
Phosphorus oxychloride	D	5,000 (2,270)
Phosphorus pentasulfide	B	100 (45.4)
Phosphorus trichloride	D	5,000 (2,270)
Polychlorinated biphenyls	A	10 (4.54)
Potassium arsenate	C	1,000 (454)
Potassium arsenite	C	1,000 (454)
Potassium bichromate	C	1,000 (454)
Potassium chromate	C	1,000 (454)
Potassium cyanide	A	10 (4.54)
Potassium hydroxide	C	1,000 (454)
Potassium permanganate	B	100 (45.4)
Propargite	A	10 (4.54)
Propionic acid	D	5,000 (2,270)
Propionic anhydride	D	5,000 (2,270)
Propylene oxide	D	5,000 (2,270)
Pyrethrins	C	1,000 (454)
Quinoline	C	1,000 (454)
Resorcinol	C	1,000 (454)
Selenium oxide	C	1,000 (454)
Silver nitrate	X	1 (0.454)
Sodium	C	1,000 (454)
Sodium arsenate	C	1,000 (454)
Sodium arsenite	C	1,000 (454)
Sodium bichromate	C	1,000 (454)

Material	Category	Reportable Quantity (kilograms)
Sodium bifluoride	D	5,000 (2,270)
Sodium bisulfite	D	5,000 (2,270)
Sodium chromate	C	1,000 (454)
Sodium cyanide	A	10 (4.54)
Sodium dodecylbenzenesulfonate	C	1,000 (454)
dodecylbenzenesulfonate	D	5,000 (2,270)
Sodium fluoride	D	5,000 (2,270)
Sodium hydroxide	D	5,000 (2,270)
Sodium hypochlorite	B	100 (45.4)
Sodium methylate	C	1,000 (454)
Sodium nitrite	B	100 (45.4)
Sodium phosphate, dibasic	D	5,000 (2,270)
Sodium phosphate, tribasic	D	5,000 (2,270)
Sodium selenite	C	1,000 (454)
Strontium chromate	C	1,000 (454)
Strychnine	A	10 (4.54)
Styrene	C	1,000 (454)
Sulfuric acid	C	1,000 (454)
Sulfur monochloride	C	1,000 (454)
2,4,5-T acid	B	100 (45.4)
2,4,5-T amines	B	100 (45.4)
2,4,5-T esters	B	100 (45.4)
2,4,5-T salts	B	100 (45.4)
2,4,5-TP acid	B	100 (45.4)
2,4,5-TP acid esters	B	100 (45.4)
TDE	X	1 (0.454)
Tetraethyl lead	B	100 (45.4)
Tetraethyl pyrophosphate	B	100 (45.4)
Thallium sulfate	C	1,000 (454)
Toluene	C	1,000 (454)
Toxaphene	X	1 (0.454)
Trichloron	C	1,000 (454)
Trichloroethylene	C	1,000 (454)
Trichlorophenol	A	10 (4.54)
Triethanolamine	C	1,000 (454)
dodecylbenzenesulfonate	D	5,000 (2,270)
Triethylamine	C	1,000 (454)
Trimethylamine	C	1,000 (454)
Uranyl acetate	D	5,000 (2,270)
Uranyl nitrate	D	5,000 (2,270)
Vanadium pentoxide	C	1,000 (454)
Vanadyl sulfate	C	1,000 (454)
Vinyl acetate	C	1,000 (454)
Vinylidene chloride	C	5,000 (2,270)
Xylene	C	1,000 (454)
Xylenol	C	1,000 (454)
Zinc acetate	C	1,000 (454)
Zinc ammonium chloride	D	5,000 (2,270)
Zinc borate	C	1,000 (454)
Zinc bromide	D	5,000 (2,270)
Zinc carbonate	C	1,000 (454)
Zinc chloride	D	5,000 (2,270)
Zinc cyanide	A	10 (4.54)
Zinc fluoride	C	1,000 (454)
Zinc formate	C	1,000 (454)
Zinc hydrosulfite	C	1,000 (454)
Zinc nitrate	D	5,000 (2,270)
Zinc phosphide	D	5,000 (2,270)
Zinc phosphite	D	5,000 (2,270)
Zinc silicofluoride	D	5,000 (2,270)
Zinc sulfate	C	1,000 (454)
Zirconium nitrate	D	5,000 (2,270)
Zirconium potassium fluoride	D	5,000 (2,270)
Zirconium sulfate	D	5,000 (2,270)
Zirconium tetrachloride	D	5,000 (2,270)

[117.3 table corrected by 44 FR 58711, October 11, 1979; amended by 44 FR 65400, November 13, 1979]

Subpart B—Applicability

§ 117.11 General applicability.

This regulation sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The

regulation applies to quantities of designated substances equal to or

greater than the reportable quantities, when discharged into or upon the navigable waters of the United States, adjoining shorelines, into or upon the contiguous zone, or beyond the contiguous zone as provided in section 311(b)(3) of the Act, except to the extent that the owner or operator can show such that discharges are made

(a) In compliance with a permit issued under the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.);

(b) In compliance with approved water treatment plant operations as specified by local or State regulations pertaining to safe drinking water;

(c) Pursuant to the label directions for application of a pesticide product registered under section 3 or section 24 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended (7 U.S.C. 136 et seq.), or pursuant to the terms and conditions of an experimental use permit issued under section 5 of FIFRA, or pursuant to an exemption granted under section 18 of FIFRA;

(d) In compliance with the regulations issued under section 3004 or with permit conditions issued pursuant to section 3005 of the Resource Conservation and Recovery Act (90 Stat. 2795; 42 U.S.C. 6901);

(e) In compliance with instructions of the On-Scene Coordinator pursuant to 40 CFR 1510 (the National Oil and Hazardous Substances Pollution Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances) or in accordance with applicable removal regulations as required by section 311(j)(1)(A);

(f) In compliance with a permit issued under § 165.7 of Title 14 of the State of California Administrative Code;

(g) From a properly functioning inert gas system when used to provide inert gas to the cargo tanks of a vessel;

(h) From a permitted source and are excluded by § 117.12 of this regulation;

(i) To a POTW and are specifically excluded or reserved in § 117.13; or

(j) In compliance with a permit issued under section 404(a) of the Clean Water Act or when the discharges are exempt from such requirements by section 404(f) or 404(r) of the Act (33 U.S.C. 1344(a), (f), (r)).

§ 117.12 Applicability to discharges from facilities with NPDES permits:

- (a) This regulation does not apply to:
- (1) Discharges in compliance with a permit under section 402 of this Act;
 - (2) Discharges resulting from circumstances identified, reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of this Act, and subject to a condition in such permit;
 - (3) Continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of this Act, which are caused by events occurring within the scope of the relevant operating or treatment systems; or
- (b) A discharge is "in compliance with a permit issued under section 402 of this Act" if the permit contains an effluent limitation specifically applicable to the substance discharged or an effluent limitation applicable to another waste parameter which has been specifically identified in the permit as intended to limit such substance, and the discharge is in compliance with the effluent limitation.
- (c) A discharge results "from circumstances identified, reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of the Act, and subject to a condition in such permit," whether or not the discharge is in compliance with the permit, where:
- (1) The permit application, the permit, or another portion of the public record contains documents that specifically identify:
 - (i) The substance and the amount of the substance; and
 - (ii) The origin and source of the substance; and
 - (iii) The treatment which is to be provided for the discharge either by:
 - (A) An on-site treatment system separate from any treatment system treating the permittee's normal discharge; or
 - (B) A treatment system designed to treat the permittee's normal discharge and which is additionally capable of treating the identified amount of the identified substance; or
 - (C) Any combination of the above; and
 - (2) The permit contains a requirement that the substance and amounts of the substance, as identified in

§ 117.12(c)(1)(i) and § 117.12(c)(1)(ii) be treated pursuant to § 117.12(c)(1)(iii) in the event of an on-site release; and

(3) The treatment to be provided is in place.

(d) A discharge is a "continuous or anticipated intermittent discharge from a point source, identified in a permit or permit application under section 402 of this Act, and caused by events occurring within the scope of the relevant operating or treatment systems," whether or not the discharge is in compliance with the permit, if:

(1) The hazardous substance is discharged from a point source for which a valid permit exists or for which a permit application has been submitted; and

[117.12(d)(1) corrected by 44 FR 58910, October 12, 1979]

(2) The discharge of the hazardous substance results from:

(i) The contamination of noncontact cooling water or storm water, provided that such cooling water or storm water is not contaminated by an on-site spill of a hazardous substance; or

(ii) A continuous or anticipated intermittent discharge of process waste water, and the discharge originates within the manufacturing or treatment systems; or

(iii) An upset or failure of a treatment system or of a process producing a continuous or anticipated intermittent discharge where the upset or failure results from a control problem, an operator error, a system failure or malfunction, an equipment or system startup or shutdown, an equipment wash, or a production schedule change, provided that such upset or failure is not caused by an on-site spill of a hazardous substance.

§ 117.13 Applicability to discharges from publicly owned treatment works and their users.

(a) [Reserved], with the exception of § 117.13(b) below.

(b) These regulations apply to all discharges of reportable quantities to a POTW, where the discharge originates from a mobile source, except where such source has contracted with, or otherwise received written permission from the owners or operators of the POTW to discharge that quantity, and the mobile

source can show that prior to accepting the substance from an industrial discharger, the substance had been treated to comply with any effluent limitation under sections 301, 302 or 306 or pretreatment standard under section 307 applicable to that facility.

§ 117.14 Demonstration projects.

Notwithstanding any other provision of this part, the Administrator of the Environmental Protection Agency may, on a case-by-case basis, allow the discharge of designated hazardous substances in connection with research or demonstration projects relating to the prevention, control, or abatement of hazardous substance pollution. The Administrator will allow such a discharge only where he determines that the expected environmental benefit from such a discharge will outweigh the potential hazard associated with the discharge.

Subpart C—Notice of Discharge of a Reportable Quantity

§ 117.21 Notice.

Any person in charge of a vessel or an onshore or an offshore facility, shall, as soon as he has knowledge of any discharge of a designated hazardous substance from such vessel or facility in quantities equal to or exceeding in any 24-hour period the reportable quantity determined by this Part, immediately notify the appropriate agency of the United States Government of such discharge. Notice shall be given in accordance with such procedures as the Secretary of Transportation has set forth in 33 CFR 153.203. This provision applies to all discharges not specifically excluded or reserved by another section of these regulations.

§ 117.22 Penalties.

(a) Any person in charge of a vessel or an onshore or offshore facility who fails to notify the United States Government of a prohibited discharge pursuant to § 117.21 (except in the case of a discharge beyond the contiguous zone, where the person in charge of a vessel is not otherwise subject to the jurisdiction of the United States) shall be subject to a fine of not more than \$10,000 or imprisonment for not more than one year, or both, pursuant to section 311(b)(5).

(b) The owner, operator or person in charge of a vessel or an onshore or offshore facility from which is discharged a hazardous substance designated in 40 CFR Part 116 in a quantity equal to or exceeding in any 24-hour period, the reportable quantity established in this Part (except in the case of a discharge beyond the contiguous zone, where the person in charge of a vessel is not otherwise subject to the jurisdiction of the United States), shall be assessed a civil penalty of up to \$5,000 per violation under section 311(b)(6)(A). Alternatively, upon a determination by the Administrator, a civil action will be commenced under section 311(b)(6)(B) to impose a penalty not to exceed \$50,000 unless such discharge is the result of willful negligence or willful misconduct within the privity and knowledge of the owner, operator, or person in charge, in which

case the penalty shall not exceed \$250,000.

Note: The Administrator will take into account the gravity of the offense and the standard of care manifest by the owner, operator, or person in charge in determining whether a civil action will be commenced under section 311(b)(6)(B). The gravity of the offense will be interpreted to include the size of the discharge, the degree of danger or harm to the public health, safety, or the environment, including consideration of toxicity, degradability, and dispersal characteristics of the substance, previous spill history, and previous violation of any spill prevention regulations. Particular emphasis will be placed on the standard of care and the extent of mitigation efforts manifest by the owner, operator, or person in charge.

§ 117.23 Liabilities for removal.

In any case where a substance designated as hazardous in 40 CFR Part

116 is discharged from any vessel or onshore or offshore facility in a quantity equal to or exceeding the reportable quantity determined by this Part, the owner, operator or person in charge will be liable, pursuant to sections 311 (f) and (g) of the Act, to the United States Government for the actual costs incurred in the removal of such substance, subject only to the defenses and monetary limitations enumerated in sections 311 (f) and (g) of the Act.

The Administrator may act to mitigate the damage to the public health or welfare caused by a discharge and the cost of such mitigation shall be considered a cost incurred under section 311(c) for the removal of that substance by the United States Government.

**ENVIRONMENTAL PROTECTION AGENCY REGULATIONS
ON DESIGNATION OF HAZARDOUS SUBSTANCES UNDER THE
FEDERAL WATER POLLUTION CONTROL ACT**

40 CFR 116.1-116.4, 43 FR 10479, March 13, 1978; 43 FR 27533, June 26, 1978;
43 FR 10266, February 16, 1979; 44 FR 65400, November 13, 1979; Corrected by 44 FR
66602, November 20, 1979.

**CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY
SUBCHAPTER D—WATER PROGRAMS
PART 116—DESIGNATION OF HAZARDOUS SUBSTANCES**

- Sec. 116.1 Applicability.
- 116.2 Abbreviations.
- 116.3 Definitions.
- 116.4 Designation of hazardous substances.

AUTHORITY: Secs. 311(b)(2)(A) and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

§ 116.1 Applicability.

This regulation designates hazardous substances under section 311(b)(2)(A) of the Federal Water Pollution Control Act (the Act). The regulation applies to discharges of substances designated in Table 116.4.

§ 116.2 Abbreviations.

ppm=parts per million
 mg=milligram(s)
 kg=kilogram(s)
 mg/l=milligrams(s) per liter=
 (approx.) ppm
 mg/kg=milligram(s) per kilogram=
 (approx.) ppm

§ 116.3 Definitions.

As used in this part, all terms shall have the meaning defined in the Act and as given below:

A discharge "in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976)," means: (1) A discharge into any waters beyond the contiguous zone from any vessel or onshore or offshore facility, which vessel or facility is subject to or is engaged in activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, and (2) any discharge into any waters beyond the contiguous zone which contain, cover, or support any natural resource belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

"Animals" means appropriately sensitive animals which carry out respiration by means of a lung structure permitting gaseous exchange between air and the circulatory system;

"Aquatic animals" means appropriately sensitive wholly aquatic animals which carry out respiration by means of a gill structure permitting gaseous exchange between the water and the circulatory system;

"Aquatic flora" means plant life associated with the aquatic eco-system including, but not limited to, algae and higher plants;

"Contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone;

"Discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping;

"Discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping, but excludes (A) discharges in compliance with a permit under section 402 of this Act, (B) discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of this Act, and subject to a condition in such permit, and (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of this Act, which are caused by events occurring within the scope of relevant operating or treatment systems;

"LC50" means that concentration of material which is lethal to one-half of the test population of aquatic animals upon continuous exposure for 96 hours or less.

"Mixture" means any combination of two or more elements and/or compounds in solid, liquid, or gaseous form except where such substances have undergone a chemical reaction so as to become inseparable by physical means.

"Navigable waters" is defined in section 502(7) of the Act to mean "waters of the United States, including the territorial seas," and includes, but is not limited to: (1) all waters which are presently used, or were used in the past, or may be susceptible to use as a

means to transport interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide, and including adjacent wetlands; the term "wetlands" as used in this regulation shall include those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevelance of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas; the term "adjacent" means bordering, contiguous or neighboring; (2) tributaries of navigable waters of the United States, including adjacent wetlands; (3) interstate waters, including wetlands; and (4) all other waters of the United States such as intrastate lakes, rivers, streams, mudflats, sandflats and wetlands, the use, degradation or destruction of which affect interstate commerce including, but not limited to:

- (i) Intrastate lakes, rivers, streams, and wetlands which are utilized by interstate travelers for recreational or other purposes; and
- (ii) Intrastate lakes, rivers, streams, and wetlands from which fish or shellfish are or could be taken and sold in interstate commerce; and
- (iii) Intrastate lakes, rivers, streams, and wetlands which are utilized for industrial purposes by industries in interstate commerce.

"Offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

"Onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

"Otherwise subject to the jurisdiction of the United States" means subject to the jurisdiction of the United States by virtue of United States citizenship, United States vessel documentation or numbering, or as provided for by international agreement to which the United States is a party.

"Public vessel" means a vessel owned or bareboat-chartered and operated by

[Sec. 116.3]

the United States, or a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

"Territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles;

"The Act" means the Federal Water Pollution Control Act, as amended by

the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500), and as further amended by the Clean Water Act of 1977 (Pub. L. 95-217), 33 U.S.C. 1251, et seq., and as further amended by the Clean Water Act Amendments of 1978 (Pub. L. 95-576).

"Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

§116.4 Designation of hazardous substances

The elements and compounds appearing in Tables 116.4 A and B are designated as hazardous substances in accordance with section 311(b)(2)(A) of the Act. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing these substances. Synonyms and Chemical Abstract System (CAS) numbers have been added for convenience of the user only. In case of any disparity the common names shall be considered the designated substance.

Table 116.4A - List of hazardous substances

Common name	CAS No.	Synonyms	Isomers	CAS No.
Acetaldehyde	75070	Ethanal, ethyl aldehyde, acetic aldehyde		
Acetic acid	64197	Glacial acetic acid, vinegar acid		
Acetic anhydride	108247	Acetic oxide, acetyl oxide		
Acetone cyanohydrin	75885	2-methylactonitrile, 2-hydroxyisobutyronitrile		
Acetyl bromide	504987			
Acetyl chloride	79387			
Acrolein	107028	2-propenal, acrylic aldehyde, acrylaldehyde, acraldehyde		
Acrylonitrile	107131	Cyabothylene, Pumigran, Ventox, propenenitrile, vinyl cyanide		
Adipic acid	124049	Hexanedioic acid		
Aldrin	309002	Octalene, EHDN		
Allyl alcohol	107186	2-propen-1-ol, 1-propen-1,2-vinyl carbinol		
Allyl chloride	107051	3-chloropropene, 3-chloropropylene, Chlorallylene		
Aluminum sulfate	10043013	Alum		
Ammonia	7664417			
Ammonium acetate	631618	Acetic acid ammonium salt		
Ammonium benzoate	1863634			
Ammonium bicarbonate	1066337	Acid ammonium carbonate, ammonium hydrogen carbonate		
Ammonium bichromate	7789085			
Ammonium bifluoride	1341497	Acid ammonium fluoride, ammonium hydrogen fluoride		
Ammonium bisulfite	10192300			
Ammonium carbamate	1111780	Ammonium aminofornate		
Ammonium carbonate	508876			
Ammonium chloride	12125029	Ammonium muriate, sal ammoniac, salmiac, Amchlor		
Ammonium chromate	7789089			
Ammonium citrate dibasic	3012655	Diammonium citrate, citric acid diammonium salt		
Ammonium fluoborate	13826830	Ammonium fluoroborate, ammonium borofluoride		
Ammonium fluoride	12125018	Neutral ammonium fluoride		
Ammonium hydroxide	1336216			
Ammonium oxalate	6009707			
	5972736			
	14258492			
Ammonium silicofluoride	16919190	Ammonium fluosilicate		
Ammonium sulfamate	7773060	Amamate, AMS, ammonium amidosulfate		
Ammonium sulfide	12135761			
Ammonium sulfite	10196040			
	10192300			
Ammonium tartrate	3164292	Tartaric acid ammonium salt		
	14307438			
Ammonium thiocyanate	1782964	Ammonium rhodanide, ammonium sulfocyanate, ammonium sulfocyanide		
Ammonium thiosulfate	7783188	Ammonium hyposulfite		
Amly acetate	628637	Amlyacetic ester	iso- sec- tert-	123922 625380 625161
Aniline	62533	aniline oil, phenylamine, aminobenzene, aminophen, kyanol		
Antimony pentachloride	7647189			

TABLE 116.4A.—List of hazardous substances—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Antimony potassium tartrate	28300745	Tartar emetic, tartrated antimony, tartaric antimony, potassium antimonyltartrate.		
Antimony tribromide	7789619			
Antimony trichloride	10025919	Butter of antimony		
Antimony trifluoride	7783664	Antimony fluoride		
Antimony trioxide	1309644	Diantimony trioxide, flowers of antimony.		
Arsenic disulfide	1303328	Red arsenic sulfide		
Arsenic pentoxide	1303282	Arsenic acid anhydride, arsenic oxide.		
Arsenic trichloride	7784341	Arsenic chloride, arsenious chloride, arsenous chloride, butter of arsenic.		
Arsenic trioxide	1327533	Arsenious acid, arsenious oxide, white arsenic.		
Arsenic trisulfide	1303339	Arsenious sulfide, yellow arsenic sulfide.		
Barium cyanide	542621			
Benzene	71432	Cyclohexatriene, benzol		
Benzoic acid	65850	Benzenecarboxylic acid, phenylformic acid, dracrylic acid		
Benzonitrile	100470	Phenyl cyanide, cyanobenzene		
Benzoyl chloride	98884	Benzenecarbonyl chloride		
Benzyl chloride	100447			
Beryllium chloride	7787475			
Beryllium fluoride	7787497			
Beryllium nitrate	7787555			
n-butyl phthalate	84742	1,2-benzenedicarboxylic acid, dibutyl ester, dibutyl phthalate		
Butyl acetate	123864	acetic acid butyl ester	iso- sec- tert-	110190 105464 540885
Butylamine	109739	1-aminobutane	iso- sec- tert-	78819 513495 13952846 75649
Butyric acid	107926	Butanoic acid, ethylacetic acid	iso-	79312
Cadmium acetate	543908			
Cadmium bromide	7789426			
Cadmium chloride	10108642			
Calcium arsenate	7778441	Tricalcium orthoarsenate		
Calcium arsenite	52740166			
Calcium carbide	75207	Carbide, acetylenogen		
Calcium chromate	13765190	Calcium chrome yellow, geblin, yellow ultramarine.		
Calcium cyanide	592018			
Calcium dodecylbenzenesulfonate	26264062			
Calcium hypochlorite	7778543			
Captan	133062	Orthocide-406, SR-406, Vancide-89		
Carbaryl	63252	Sevin		
Carbofuran	1563662			
Carbon disulfide	75150	Carbon bisulfide, dithiocarbonic anhydride.		
Carbon tetrachloride	56235	Tetrachloromethane, perchloromethane		
Chlordane	57749	Toxichlor, chlordan		
Chlorine	75003			
Chlorobenzene	108907	Monochlorobenzene benzene chloride		
Chloroform	67663	trichloromethane		
Chlorpyrifos	2921882	Dursban		
Chlorosulfonic acid	7790945	Sulfuric chlorohydrin		
Chromic acetate	1066304			
Chromic acid	11115745	chromic anhydride, chromium trioxide.		
Chromic sulfate	10101538			
Chromous chloride	10049056			
Cobaltous bromide	7789437	Cobalt bromide		
Cobaltous formate	544163	Cobalt formate		
Cobaltous sulfamate	14017415	Cobalt sulfamate		
Coumaphos	56724	Co-Ral		

TABLE 116.4A.—List of hazardous substances—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Cresol	1319778	Cresylic acid Hydroxytoluene	m	108394
			o	95487
			p	106448
Crotonaldehyde	4170303	2-butenal propylene aldehyde		
Cupric acetate	142712	Copper acetate, crystallized verdigris		
Cupric acetoarsenite	12002038	Copper acetoarsenite, copper acetate arsenite, Paris green		
Cupric chloride	7447394	Copper chloride		
Cupric nitrate	3281238	Copper nitrate		
Cupric oxalate	5893663	Copper oxalate		
Cupric sulfate	7758987	Copper sulfate		
Cupric sulfate, ammoniated	10380297	Ammoniated copper sulfate		
Cupric tartrate	815827	Copper tartrate		
Cyanogen chloride	506774			
Cyclohexane	110827	Hexahydrobenzene, hexamethylene, hexanaphthene		
2,4-D acid	94757	2,4-dichlorophenoxyacetic acid		
2,4-D ester	94111	2,4-dichlorophenoxyacetic acid ester		
	94791			
	94804			
	1320189			
	1928387			
	1928616			
	1929733			
	2971382			
	25168267			
	53467111			
DDT	50293	p,p'-DDT		
Diazinon	333415	Dipofene, Diazitol, Basudin, Spectracide		
Dicamba	1918009	2-methoxy-3,6-dichlorobenzoic acid		
Dichlobenil	1194656	2,6-dichlorobenzonitrile, 2,6-DBN		
Dichlone	117806	Phygon, dichloronaphthoquinone		
Dichlorobenzene	25321226	Di-chloricide Paramoth (Para)	Ortho	95307
			Para	106467
Dichloropropane	28638197	Propylene dichloride	1,1	78999
			1,2	78875
			1,3	142289
			1,3	542756
Dichloropropene	28952238		2,3	78886
Dichloropropene-dichloropropane (mixture)	8003198	D-D mixture Vidden D		
2,2-Dichloropropionic acid	75990	Dalapon		
Dichlorvos	62737	2,2-dichlorovinyl dimethyl phosphate, Vapona		
Dieldrin	60571	Alvit		
Diethylamine	109897			
Dimethylamine	124403			
Dinitrobenzene (mixed)	25154545	Dinitrobenzol	m	99850
			o	528290
			p	100254
			(2,5)	329715
Dinitrophenol	51285 (2,4)	Aldifen	(2,6)	573568
Dinitrotoluene	25321146	DNT	2,4	121142
			2,6	666202
			3,4	510989
Diquat	85007 2764729	Aquacide Dextrone, Reglone, Diquat dibromide		
Disulfoton	298044	Di-syston		
Diuron	330841	DCMU, DMU		
Dodecylbenzenesulfonic acid	27176870			
Endosulfan	115297	Thiodan		
Endrin	72208	Mendrin, Compound 269		
Epichlorohydrin	106898	chloropropylene oxide		
Ethion	563122	Nialate, ethyl methylene phosphorodithioate		
Ethylbenzene	100414	Phenylethane		
Ethylenediamine	107153	1,2-diaminoethane		
Ethylenediamine-tetraacetic acid (EDTA)	60004	Edetic acid, Havidote, (ethylenedinitrilo)-tetraacetic acid		
Ethylene dibromide	106934	1,2-dibromoethane acetylene dibromide sym-dibromoethylene		
Ethylene dichloride	107062	1,2-dichloroethane sym-bichloroethane		
Ferric ammonium citrate	1185575	Ammonium ferric citrate		
Ferric ammonium oxalate	2944674 55488874	Ammonium ferric oxalate		
Ferric chloride	7705080	Flores martis, iron trichloride		
Ferric fluoride	7783508			
Ferric nitrate	10421484	Iron nitrate		
Ferric sulfate	10028225	Ferric persulfate, ferric sesquisulfate, ferric tersulfate		
Ferrous ammonium sulfate	10045893	Mohr's salt, iron ammonium sulfate		
Ferrous chloride	7758943	Iron chloride, iron dichloride, iron protochloride		

TABLE 116.4A.—List of hazardous substances—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Ferrous sulfate.....	7720787	Green vitriol.....		
	7782630	Iron vitriol, iron sulfate, iron proto-sulfate.....		
Formaldehyde.....	50000	Methyl aldehyde, methanal, formalin.....		
Formic acid.....	64188	Methanoic acid.....		
Fumaric acid.....	110178	Trans-butenedioic acid, trans-1,2-ethylenedicarboxylic acid, boletic acid, allomaleic acid.....		
Furfural.....	98011	2-furaldehyde, pyromucic aldehyde.....		
Guthion.....	86500	Gusathion, asinphos-methyl.....		
Heptachlor.....	76448	Velicol-104, Drinox, Heptagran.....		
Hexachlorocyclopentadiene.....	77474	Perchlorocyclopentadiene.....		
Hydrochloric acid.....	7647010	Hydrogen chloride, muriatic acid.....		
Hydrofluoric acid.....	7664393	Fluohydric acid.....		
Hydrogen cyanide.....	74908	Hydrocyanic acid.....		
Hydrogen sulfide.....	7783064	Hydrosulphuric acid, sulfur hydride.....		
Isoprene.....	78795	2-methyl-1,3-butadiene.....		
Isopropanolamine dodecylbenzenesulfonate.....	42504481			
Kelthane.....	115323	DKP-(chlorophenyl)-trichloromethylcarbinol, DTMC, diofol.....		
Kepon.....	143500	Chlordecone 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(c,d)pentalen-2-one.....		
Lead acetate.....	301042	Sugar of lead.....		
Lead arsenate.....	7784409			
	7645252			
	10102484			
Lead chloride.....	7758954			
Lead fluoroborate.....	18814968	Lead fluoroborate.....		
Lead fluoride.....	7783462	Lead difluoride, plumbous fluoride.....		
Lead iodide.....	10101630			
Lead nitrate.....	10099748			
Lead stearate.....	7428480	Stearic acid lead salt.....		
	1072351			
	82852592			
Lead sulfate.....	7446142			
Lead sulfide.....	1314970	Galena.....		
Lead thiocyanate.....	592970	Lead sulfocyanate.....		
Lindane.....	58899	Gamma-BHC, gamma-benzene hexachloride.....		
Lithium chromate.....	14307358			
Malathion.....	121755	Phosphothion.....		
Maleic acid.....	110167	Cis-butenedioic acid, cis-1,2-ethylenedicarboxylic acid, toxic acid.....		
Maleic anhydride.....	108316	2,5-furandione, cis-butenedioic anhydride, toxic anhydride.....		
Mercaptodimethur.....	2032657	Mesurol.....		
Mercuric cyanide.....	592041	Mercury cyanide.....		
Mercuric nitrate.....	10045940	Mercury nitrate, mercury pernitrate.....		
Mercuric sulfate.....	7783359	Mercury sulfate, mercury persulfate.....		
Mercuric thiocyanate.....	592858	Mercury thiocyanate, mercuric sulfocyanate, mercuric sulfocyanide.....		
Mercurous nitrate.....	7782867			
	10415755	Mercury protonitrate.....		
Methoxychlor.....	72435	DMDT, methoxy-DDT.....		
Methyl mercaptan.....	74931	Methanethiol, mercaptomethane, methyl sulfhydrate, thiomethyl alcohol.....		
Methyl methacrylate.....	80628	Methacrylic acid methyl ester, methyl-2-methyl-2-propenoate.....		
Methyl parathion.....	298000	Nitrox-80.....		
Mevinphos.....	7786347	Phosdrin.....		
Mexcarbata.....	315184	Zectran.....		
Monoethylamine.....	75047	Ethylamine, aminoethane.....		
Monomethylamine.....	74895	Methylamine, aminomethane.....		
Naled.....	300785	Dibrom.....		
Naphthalene.....	91203	White tar, tar camphor, naphthalin.....		
Naphthenic acid.....	1338245	Cyclohexanecarboxylic acid, hexahydrobenzoic acid.....		
Nickel ammonium sulfate.....	15699180	Ammonium nickel sulfate.....		
Nickel chloride.....	37211055	Nickelous chloride.....		
	7718549			

TABLE 116.4A.—List of hazardous substances—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Nickel hydroxide	12054487	Nickelous hydroxide		
Nickel nitrate	14216752			
Nickel sulfate	7788814	Nickelous sulfate		
Nitric acid	7697372	Aqua fortis		
Nitrobenzene	98953	Nitrobenzol, oil of mirbane		
Nitrogen dioxide	10102440	Nitrogen tetroxide		
Nitrophenol (mixed)	25154556	Mononitrophenol	m- o- p- Ortho Meta Para	554847 88755 100027 88722 99081 99990
Nitrotoluene	1321126			
Paraformaldehyde	30525894	Paraform, Formagene, Triformol, polymerized formaldehyde, polyoxymethylene.		
Parathion	56382	DNTP, Niran		
Pentachlorophenol	87865	PCP, Penta		
Phenol	108952	Carbolic acid, phenyl hydroxide, hydroxybenzene, oxybenzene.		
Phosgene	75445	Diphosgene, carbonyl chloride, chloroformyl chloride.		
Phosphoric acid	7664382	Orthophosphoric acid		
Phosphorus	7723140	Black phosphorus, red phosphorus, white phosphorus, yellow phosphorus.		
Phosphorus oxychloride	10025873	Phosphoryl chloride, phosphorus chloride.		
Phosphorus pentasulfide	1314803	Phosphoric sulfide, thiophosphoric anhydride, phosphorus persulfide.		
Phosphorus trichloride	7719122	Phosphorous chloride		
Polychlorinated biphenyls	1336363	PCB, Aroclor, polychlorinated diphenyls.		
Potassium arsenate	7784410			
Potassium arsenite	10124502	Potassium metaarsenite		
Potassium dichromate	7778509	Potassium dichromate		
Potassium chromate	7789006			
Potassium cyanide	151508			
Potassium hydroxide	1310583	Potassium hydrate, caustic potash, potassa.		
Potassium permanganate	7722647	Chameleon mineral		
Propargite	2312358	Onite		
Propionic acid	79094	Propanoic acid, methylacetic acid, ethylformic acid.		
Propionic anhydride	123626	Propanoic anhydride, methylacetic anhydride.		
Propylene oxide	75569	Propene oxide		
Pyrethrins	121299 121211	Pyrethrin I Pyrethrin II		
Quinoline	91225	1-benzazine, benzo(b)pyridine, leucoline, chinoleine, leucol.		
Resorcinol	108483	Resorcin, 1,3-benzenediol, meta-dihydroxybenzene.		
Selenium oxide	7446084	Selenium dioxide		
Silver nitrate	7761838	Nitric acid silver (1+) salt lunar caustic		
Sodium	7440235	Natrium		
Sodium arsenate	7631892	Disodium arsenate		
Sodium arsenite	7784465	Sodium metaarsenite		
Sodium bichromate	10588019	Sodium dichromate		
Sodium bifluoride	1333831			
Sodium bisulfite	7631905	Sodium acid sulfite, sodium hydrogen sulfite.		
Sodium chromate	7775113			
Sodium cyanide	143339			
Sodium dodecylbenzenesulfonate	25155300			
Sodium fluoride	7681494	Villiaumite		
Sodium hydrosulfide	18721805	Sodium hydrogen sulfide		
Sodium hydroxide	1310732	Caustic soda, soda lye, sodium hydrate.		
Sodium hypochlorite	7681529 10022705	Bleach		
Sodium methylate	124414	Sodium methoxide		
Sodium nitrite	7632000			
Sodium phosphate, dibasic	7558794 10039324 10028247			
Sodium phosphate, tribasic	10140655 7785844 7601549 10101890 10361894 7758294 10124568			

TABLE 116.4A.—List of hazardous substances—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Sodium selenite.....	10102188	.....	.....	.....
.....	7782823	.....	.....	.....
Strontium chromate.....	7789062	.....	.....	.....
Strychnine.....	57249	.....	.....	.....
Styrene.....	100425	Vinylbenzene, phenylethylene, styrol, styrolene, cinnamene, cinnam- ol.	.....	.....
Sulfuric acid.....	7664939	Oil of vitriol, oleum.....	.....	.....
Sulfur monochloride.....	12771083	Sulfur chloride.....	.....	.....
2,4,5-T acid.....	93765	2,4,5-trichlorophenoxy acetic acid.....	.....	.....
2,4,5-T amides.....	6369966	Acetic acid (2,4,5-trichlorophenoxy)- compound with N,N-dimethylmeth- anamine (1:1).	.....	.....
.....	6369977	Acetic acid (2,4,5-trichlorophenoxy)- compound with N-methylmethana- mine (1:1).	.....	.....
.....	1319728	Acetic acid (2,4,5-trichlorophenoxy)- compound with 1-amino-2-propanol (1:1).	.....	.....
.....	3813147	Acetic acid (2,4,5-trichlorophenoxy)- compound with 2,2,2-nitrilotris [ethanol] (1:1).	.....	.....
2,4,5-T esters.....	2545597	2,4,5-trichlorophenoxy acetic esters.....	.....	.....
.....	93798	.....	.....	.....
.....	61792072	.....	.....	.....
.....	1928478	.....	.....	.....
.....	25168154	.....	.....	.....
2,4,5-T salts.....	13560991	Acetic acid (2,4,5-trichlorophenoxy)- sodium salt.	.....	.....
2,4,5-TP acid.....	93721	Propanoic acid 2-(2,4,5-trichlorophen- oxy).	.....	.....
2,4,5-TP esters.....	32534955	Propanoic acid, 2-(2,4,5-trichloro- phenoxy), isooctyl ester	.....	.....
TDE.....	72546	DDD.....	.....	.....
Tetraethyl lead.....	78002	Lead tetraethyl, TEL.....	.....	.....
Tetraethyl pyrophosphate..	107493	TEPP.....	.....	.....
Thallium sulfate.....	10031591	.....	.....	.....
.....	7446186	.....	.....	.....
Toluene.....	108883	Toluol, methylbenzene, phenyl- methane, Methacide.....	.....	.....
Toxaphene.....	8001352	Campechlor.....	.....	.....
Trichloroethylene.....	79016	Ethylene trichloride.....	.....	.....
Trichlorfon.....	52886	Dipterex.....	.....	.....
.....	.....	Dylox.....	.....	.....
Trichlorophenol.....	25167822	Coltinoxol, Dowicide 2 or 2S, Omal, Phenachlor.....	m- (2,3,4-) o- (2,3,5-) p- (2,3,6-) (2,4,5-) (2,4,6-) (3,4,5-)	15950660 933788 933755 95954 88062 609198
Triethanolamine	27323417	.....	.....	.....
dodecylbenzenesulfonate.	.....	.....	.....	.....
Triethylamine.....	121448	.....	.....	.....
Trimethylamine.....	75503	TMA.....	.....	.....
Uranyl acetate.....	541093	.....	.....	.....
Uranyl nitrate.....	10102064	.....	.....	.....
.....	36478769	.....	.....	.....
Vanadium pentoxide.....	1314621	Vanadic anhydride, vanadic acid an- hydride.....	.....	.....
Vanadyl sulfate.....	27774136	Vanadic sulfate, vanadium sulfate.....	.....	61.....
Vinyl acetate.....	108054	Acetic acid ethylene ether.....	.....	.....
Vinylidene chloride.....	75354	1,1-dichloroethylene 1,1-dichloroethene	.....	.....
Xylene (mixed).....	1330207	Dimethylbenzene.....	m-..... o-..... p-.....	108383 95476 106423
Xylenol.....	1300716	Dimethylphenol, hydroxydimethylbenzene.....	.....	.....
Zinc acetate.....	557346	.....	.....	.....
Zinc ammonium chloride.....	14639975	.....	.....	.....
.....	14639986	.....	.....	.....
.....	52628258	.....	.....	.....
Zinc borate.....	1332076	.....	.....	.....
Zinc bromide.....	7699458	.....	.....	.....
Zinc carbonate.....	3486359	.....	.....	.....
Zinc chloride.....	7846857	Butter of zinc.....	.....	.....
Zinc cyanide.....	557211	.....	.....	.....
Zinc fluoride.....	7783495	.....	.....	.....
Zinc formate.....	557415	.....	.....	.....
Zinc hydrosulfite.....	7779864	.....	.....	.....
Zinc nitrate.....	7779886	.....	.....	.....
Zinc phenolsulfonate.....	127822	Zinc sulfocarbolate.....	.....	.....
Zinc phosphide.....	1314847	.....	.....	.....
Zinc silicofluoride.....	16271719	Zinc fluorsilicate.....	.....	.....
Zinc sulfate.....	7733020	White vitriol, zinc vitriol, white cop- peras.....	.....	.....
Zirconium nitrate.....	13746899	.....	.....	.....
Zirconium potassium fluoride.....	16923958	.....	.....	.....
Zirconium sulfate.....	14344612	Disulfatozirconic acid.....	.....	.....
Zirconium tetrachloride.....	10026118	.....	.....	.....

[116.4A table amended by 44 FR 65400, November 13, 1979; corrected by 44 FR 66602, Novem-
ber 20, 1979]

TABLE 116.4B.—List of Hazardous Substances By CAS Number

CAS No. and common name

50000	Formaldehyde	108463	Resorcinol	1333831	Sodium bifluoride
50293	DDT	108883	Toluene	1336216	Ammonium hydroxide
51285	2,4-Dinitrophenol	108907	Chlorobenzene	1336363	Polychlorinated biphenyls
52866	Trichlorfon	108952	Phenol	1338245	Naphthenic acid
56382	Parathion	109739	n-Butylamine	1341497	Ammonium bifluoride
56724	Coumaphos	109897	Diethylamine	1762954	Ammonium thiocyanate
57249	Strychnine	110187	Maleic acid	1863634	Ammonium benzoate
57749	Chlordane	110178	Fumaric acid	1918009	Dicamba
58899	Lindane	110190	iso-Butyl acetate	1928387	2,4-D esters
60004	Ethylenediaminetetraacetic acid (EDTA)	110827	Cyclohexane	1928478	2,4,5-T ester
60571	Dieldrin	115297	Endosulfan	1928616	2,4-D ester
62533	Aniline	115322	Kelthane	1929733	2,4-D ester
62737	Dichlorvos	117806	Dichlone	2545597	2,4,5-T ester
63252	Carbaryl	121211	Pyrethrin	2764729	Diquat
64186	Formic acid	121299	Pyrethrin	2921882	Chlorpyrifos
64197	Acetic acid	121448	Triethylamine	2944674	Ferric ammonium oxalate
65850	Benzic acid	121755	Malathion	2971382	2,4-D ester
67663	Chloroform	123626	Propionic anhydride	3012655	Ammonium citrate, dibasic
71432	Benzene	123864	n-Butyl acetate	3164292	Ammonium tartrate
72208	Endrin	123922	iso-Amyl acetate	3251238	Cupric nitrate
72435	Methoxychlor	124403	Dimethylamine	3486359	Zinc carbonate
72548	TDE	124414	Sodium methylate	5893663	Cupric oxalate
74895	Monomethylamine	127822	Zinc phenolsulfonate	5972736	Ammonium oxalate
74908	Hydrogen cyanide	133062	Captan	6009707	Ammonium oxalate
74931	Methyl mercaptan	142712	Cupric acetate	6369966	2,4,5-T ester
75047	Monoethylamine	143339	Sodium cyanide	7428480	Lead stearate
75070	Acetaldehyde	151508	Potassium cyanide	7440235	Sodium
75150	Carbon disulfide	298000	Methyl parathion	7446084	Selenium oxide
75207	Calcium carbide	298044	Disulfoton	7446142	Lead sulfate
75445	Phosgene	300765	Naled	7447394	Cupric chloride
75503	Trimethylamine	301042	Lead acetate	7558784	Sodium phosphate, dibasic
75649	tert-Butylamine	309002	Aldrin	7601549	Sodium phosphate, tribasic
75845	Acetone cyanohydrin	315184	Mexacarbate	7631892	Sodium arsenate
75990	2,2-Dichloropropionic acid	329715	2,5-Dinitrophenol	7631905	Sodium bisulfite
76448	Heptachlor	330541	Diuron	7632000	Sodium nitrite
78002	Tetraethyl lead	333415	Diazinon	7645252	Lead arsenate
78795	Isoprene	506774	Cyanogen chloride	7646857	Zinc chloride
78819	iso-Butylamine	506876	Ammonium carbonate	7647010	Hydrochloric acid
79094	Propionic acid	506987	Acetyl bromide	7647189	Antimony pentachloride
79312	iso-Butyric acid	513495	sec-Butylamine	7664382	Phosphoric acid
79367	Acetyl chloride	528290	o-Dinitrobenzene	7664393	Hydrofluoric acid
80626	Methyl methacrylate	540885	tert-Butyl acetate	7664417	Ammonia
85007	Diquat	541093	Uranyl acetate	7664939	Sulfuric acid
86500	Guthion	542621	Barium cyanide	7681494	Sodium fluoride
87865	Pentachlorophenol	543908	Cadmium acetate	7681529	Sodium hypochlorite
88755	o-Nitrophenol	544183	Cobaltous formate	7697372	Nitric acid
91203	Naphthalene	554847	m-Nitrophenol	7699458	Zinc bromide
91225	Quinoline	557211	Zinc cyanide	7705080	Ferric chloride
93765	2,4,5-T acid	557346	Zinc acetate	7718549	Nickel chloride
93798	2,4,5-T ester	557415	Zinc formate	7719122	Phosphorus trichloride
94111	2,4-D ester	563122	Ethion	7720787	Ferrous sulfate
94757	2,4-D acid	573568	2,6-Dinitrophenol	7722647	Potassium permanganate
94791	2,4-D ester	592018	Calcium cyanide	7723149	Phosphorus
94804	2,4-D Butyl ester	592041	Mercuric cyanide	7733020	Zinc sulfate
95476	o-Xylene	592858	Mercuric thiocyanate	7758294	Sodium phosphate, tribasic
95487	o-Cresol	592870	Lead thiocyanate	7758943	Ferrous chloride
98011	Furfural	625161	tert-Amyl acetate	7758954	Lead chloride
98884	Benzoyl chloride	626380	sec-Amyl acetate	7758987	Cupric sulfate
98953	Nitrobenzene	628637	n-Amyl acetate	7773060	Ammonium sulfamate
99650	m-Dinitrobenzene	631618	Ammonium acetate	7775113	Sodium chromate
100027	p-Nitrophenol	815827	Cupric tartrate	7778441	Calcium arsenate
100254	p-Dinitrobenzene	1066304	Chromic acetate	7778509	Potassium bichromate
100414	Ethylbenzene	1066337	Ammonium bicarbonate	7778543	Calcium hypochlorite
100425	Styrene	1072351	Lead stearate	7779864	Zinc hydrosulfite
100447	Benzyl chloride	1111780	Ammonium carbamate	7779886	Zinc nitrate
100470	Benzonitrile	1185575	Ferric ammonium citrate	7782505	Chlorine
105464	sec-Butyl acetate	1194656	Dichlobenil	7782630	Ferrous sulfate
106423	p-Xylene	1300716	Xylenol	7782823	Sodium selenite
106445	p-Cresol	1303282	Arsenic pentoxide	7782867	Mercurous nitrate
107028	Acrolein	1303328	Arsenic disulfide	7783188	Ammonium thiosulfate
107051	Allyl chloride	1303339	Arsenic trisulfide	7783359	Mercuric sulfate
107131	Acrylonitrile	1309644	Antimony trioxide	7783462	Lead fluoride
107153	Ethylenediamine	1310583	Potassium hydroxide	7783495	Zinc fluoride
107186	Allyl alcohol	1310732	Sodium hydroxide	7783508	Ferric fluoride
107493	Tetraethyl pyrophosphate	1314621	Vanadium pentoxide	7783564	Antimony trifluoride
107926	n-Butyric acid	1314803	Phosphorus pentasulfide	7784341	Arsenic trichloride
108054	Vinyl acetate	1314847	Zinc phosphide	7784409	Lead arsenate
108247	Acetic anhydride	1314870	Lead sulfide	7784410	Potassium arsenate
108316	Maleic anhydride	1319773	Cresol (mixed)	7784465	Sodium arsenite
108383	m-Xylene	1320189	2,4-D ester	7785844	Sodium phosphate, tribasic
108394	m-Cresol	1327533	Arsenic trioxide	7786347	Mevinphos
		1330207	Xylene	7786814	Nickel sulfate
			Zinc borate	7787475	Beryllium chloride
				7787497	Beryllium fluoride

[Sec. 116.4B]

HAZARDOUS SUBSTANCES DESIGNATION

S-482
131:2009

7787555	Beryllium nitrate	10124502	Potassium arsenite	14844612	Zirconium sulfate
7788989	Ammonium chromate	10124568	Sodium phosphate, tribasic	15699180	Nickel ammonium sulfate
7789006	Potassium chromate	10140655	Sodium phosphate, dibasic	16721805	Sodium hydrosulfide
7789062	Strontium chromate	10192300	Ammonium bisulfite	16871719	Zinc silicofluoride
7789095	Ammonium bichromate	10196040	Ammonium sulfite	16919190	Ammonium silicofluoride
7789426	Cadmium bromide	10361894	Sodium phosphite, tribasic	16923958	Zirconium potassium fluoride
7789437	Cobaltous bromide	10380297	Cupric sulfate, ammoniated	25154545	Dinitrobenzene
7789619	Antimony tribromide	10415755	Mercurous nitrate	25154556	Nitrophenol
7790945	Chlorosulfonic acid	10421484	Ferric nitrate	25155300	Sodium dodecylbenzenesulfonate
8001352	Toxaphene	10588019	Sodium bichromate	25167822	Trichlorophenol
10022705	Sodium hypochlorite	11115745	Chromic acid	25168154	2,4,5-T ester
10025873	Phosphorus oxychloride	12002038	Cupric acetoarsenite	25168267	2,4-D ester
10025919	Antimony trichloride	12054487	Nickel hydroxide	26264062	Calcium
10026116	Zirconium tetrachloride	12125018	Ammonium fluoride		dodecylbenzenesulfonate
10028225	Ferric sulfate	12125029	Ammonium chloride	27176870	Dodecylbenzenesulfonic acid
10028247	Sodium phosphate, dibasic	12135761	Ammonium sulfide	27323417	Triethanolamine
10039324	Sodium phosphate, dibasic	12771082	Sulfur chloride		dodecylbenzenesulfonate
10043013	Aluminum sulfate	13597894	Beryllium nitrate	27774136	Vanadyl sulfate
10045893	Ferrous ammonium sulfate	13746899	Zirconium nitrate	28300745	Antimony potassium tartrate
10045940	Mercuric nitrate	13765190	Calcium chromate	30525894	Paraformaldehyde
10049055	Chromous chloride	13814965	Lead fluoborate	36478769	Uranyl nitrate
10099748	Lead nitrate	13826830	Ammonium fluoborate	37211055	Nickel chloride
10101538	Chromic sulfate	13952846	sec-Butylamine	42504461	Dodecylbenzenesulfonate isopropanolamine
10101630	Lead iodide	14017415	Cobaltous sulfamate	52628258	Zinc ammonium chloride
10101890	Sodium phosphate, tribasic	14216752	Nickel nitrate	52740166	Calcium arsenite
10102064	Uranyl nitrate	14258492	Ammonium oxalate	53467111	2,4-D ester
10102188	Sodium selenite	14307358	Lithium chromate	55488874	Ferric ammonium oxalate
10102440	Nitrogen dioxide	14307438	Ammonium tartrate	61792072	2,4,5-T ester
10102484	Lead arsenate	14639975	Zinc ammonium chloride		
10108642	Cadmium chloride	14639986	Zinc ammonium chloride		

[116.4B table amended by 44 FR 65400, November 13, 1979]

VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
7	9	7	11	7			
(specify) National Security				(specify) NA			
C. THIRD				D. FOURTH			
7				7			
(specify) NA				(specify) NA			

VIII. OPERATOR INFORMATION

A. NAME												B. Is the name listed in Item VIII-A also the owner?	
MARINE CORPS BASE CAMP LEJEUNE												<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)													
F = FEDERAL		M = PUBLIC (other than federal or state)		F (specify) NA		D. PHONE (area code & no.)							
S = STATE		O = OTHER (specify)				919		451		500		3	
P = PRIVATE													
E. STREET OR P.O. BOX													

F. CITY OR TOWN						G. STATE	H. ZIP CODE	IX. INDIAN LAND	
CAMP LEJEUNE						NC	28542	Is the facility located on Indian lands?	
								<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)						D. PSD (Air Emissions from Proposed Sources)					
NC0003239						NA					
B. UIC (Underground Injection of Fluids)						E. OTHER (specify)					
NA						NA					
C. RCRA (Hazardous Wastes)						E. OTHER (specify)					

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements. (SEE ATTACHMENT A)

XII. NATURE OF BUSINESS (provide a brief description)

Military Training and Supporting Activities
 Equipment and Vehicle Maintenance
 Facilities Maintenance
 Personnel Housing, Utilities and Supporting Activities

Note: Sewage treatment plants discharge treated effluent under NPDES Permit NC0003239. These plants treat only sewage produced aboard this Facility.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)		B. SIGNATURE		C. DATE SIGNED	
D. A. BARKER				8/05/70	

COMMENTS FOR OFFICIAL USE ONLY

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FORM 1	U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>	I. EPA I.D. NUMBER
GENERAL		F N C 6 1 7 0 0 2 2 5 8 0

LABEL ITEMS I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION	PLEASE PLACE LABEL IN THIS SPACE
--	----------------------------------

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		*	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP MARINE CORPS BASE CAMP LEJEUNE

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2 DANNY SHARPE ECOLOGIST	919 451 5003

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
3 MARINE CORPS BASE			
B. CITY OR TOWN		C. STATE	D. ZIP CODE
4 CAMP LEJEUNE		NC	28542

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER					
5 MARINE CORPS BASE					
B. COUNTY NAME					
ONSLOW COUNTY					
C. CITY OR TOWN			D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
6 CAMP LEJEUNE			NC	28542	

1. The attached maps were copied from the Camp Lejeune Special Map, 5th Edition, September 25, 1976, published by The Defense Mapping Agency Hydrographic Center, Washington, D. C. 20390.

2. Map Scale 1:50,000

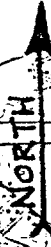


3. Contour lines are marked in 10 feet intervals above mean high water level.

4. Symbols used to show requested information are as follows:

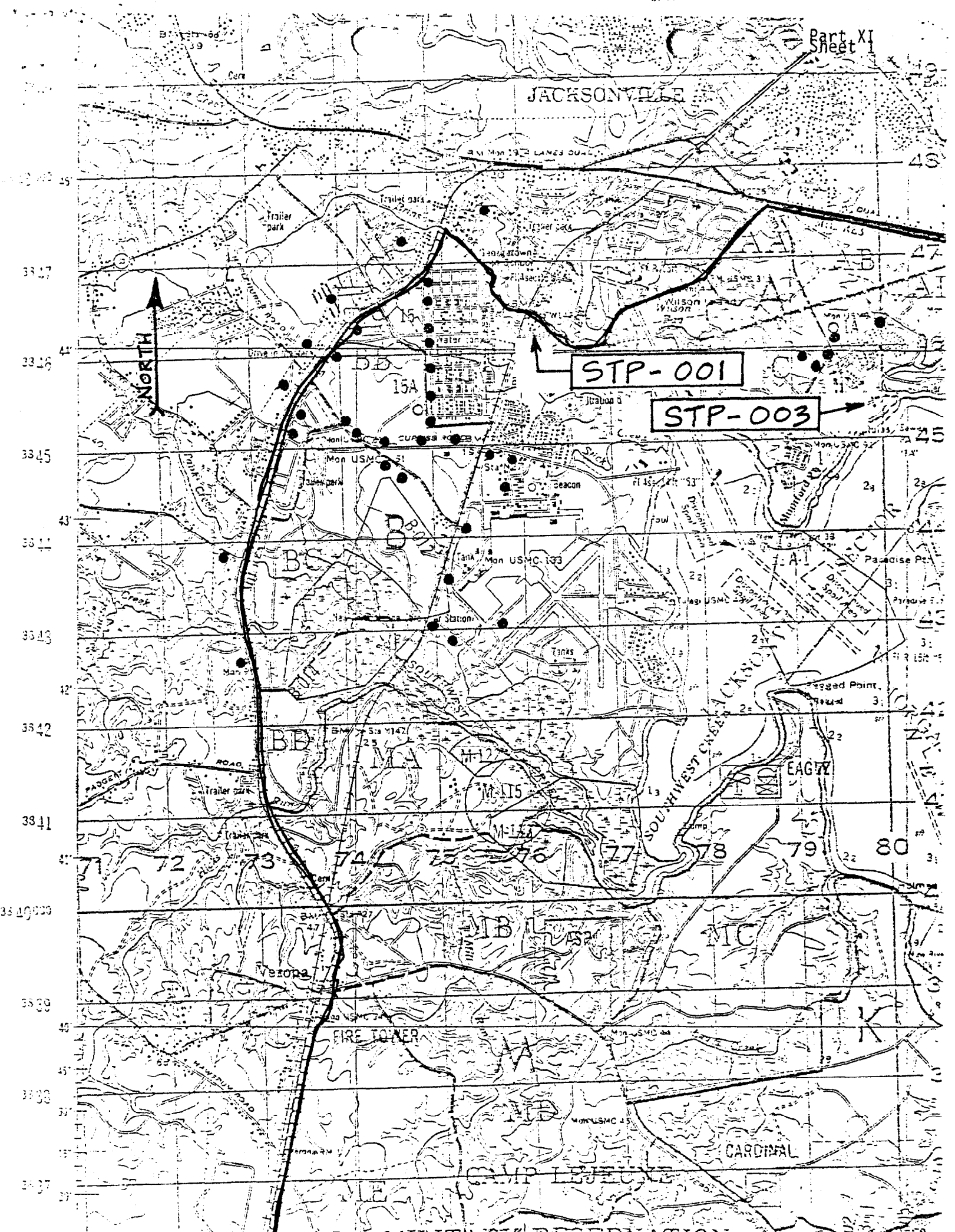
<u>Symbol</u>	<u>Feature</u>
	Facility Boundary
	Public Drinking Water Well
	Sewage Treatment Plant Location and NPDES ID Number
	Facility Used to Store Hazardous Waste Awaiting Transfer to Approved Off Base Disposal Facilities

JACKSONVILLE



STP-001

STP-003

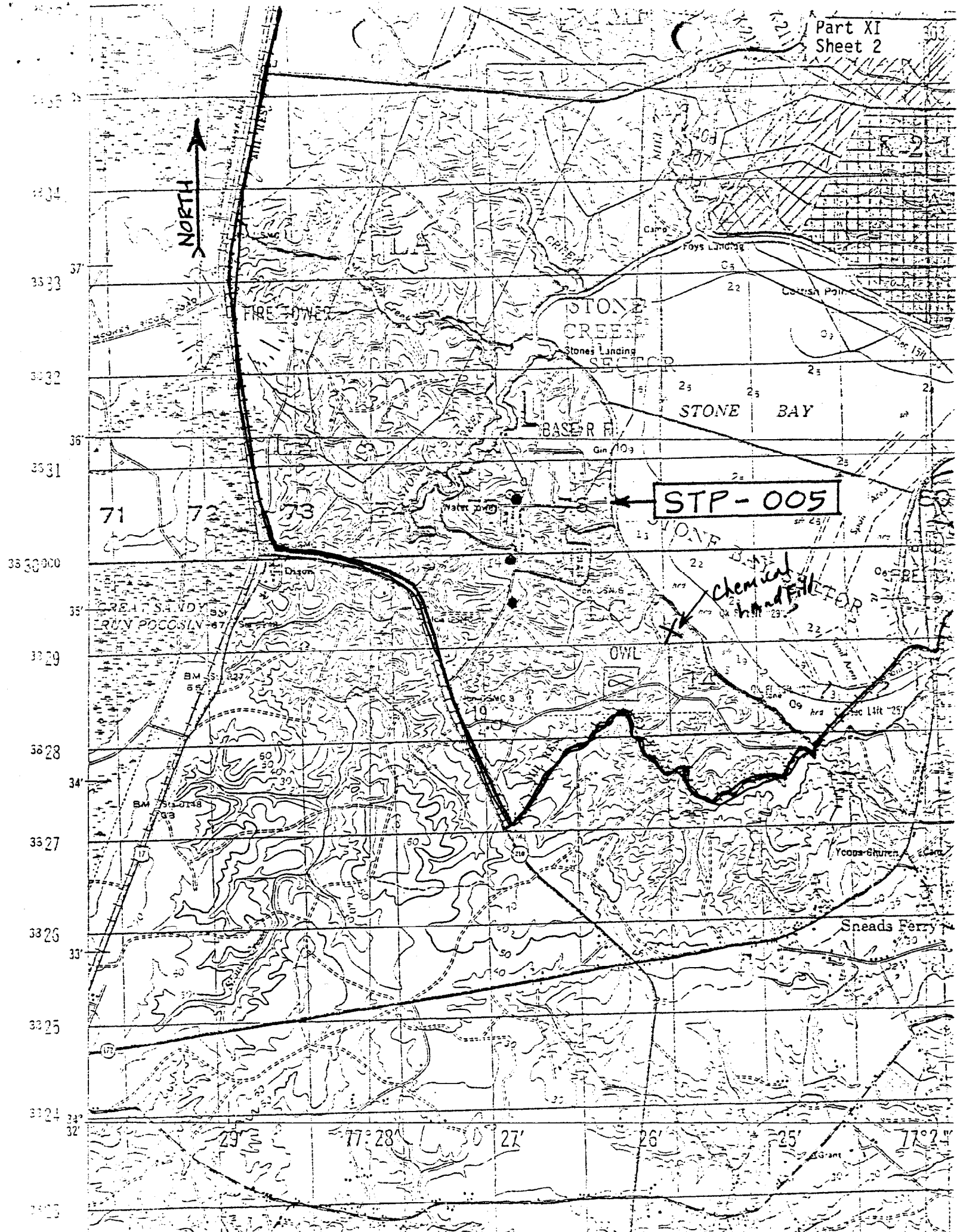
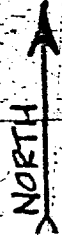


FIRE TOWER

CARDINAL

CAMP LEJEUNE

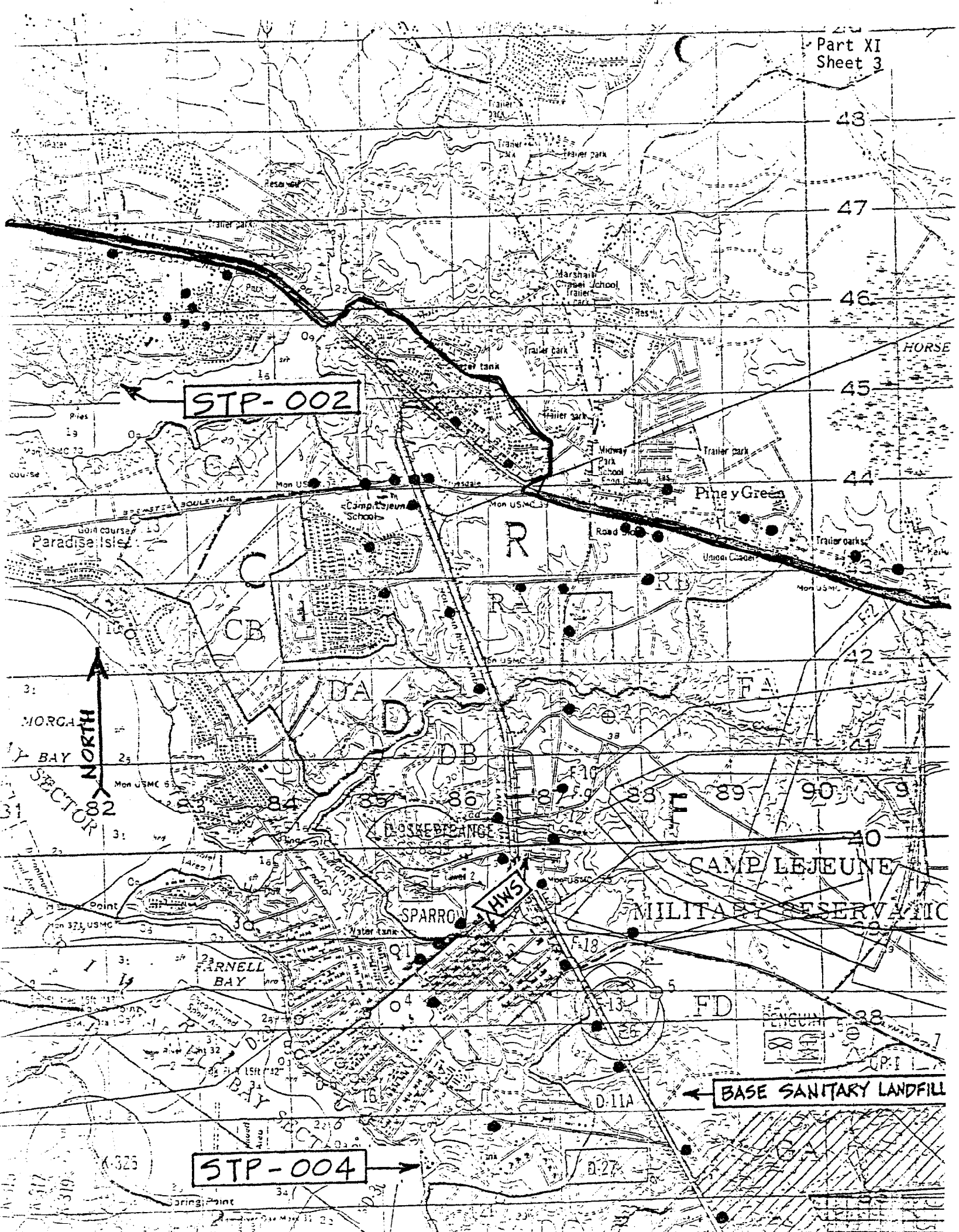
MILITARY RESERVATION



STP-002

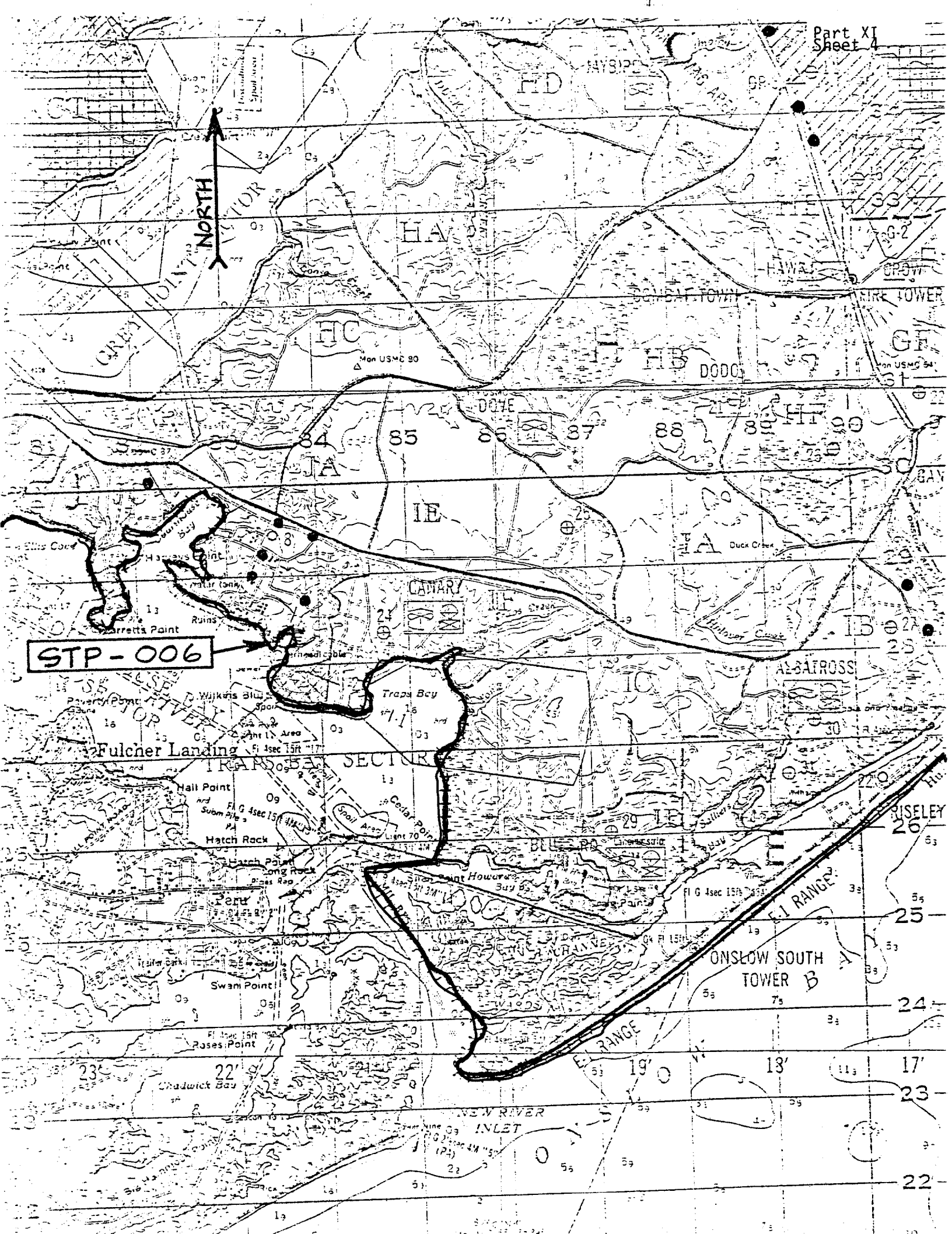
BASE SANITARY LANDFILL

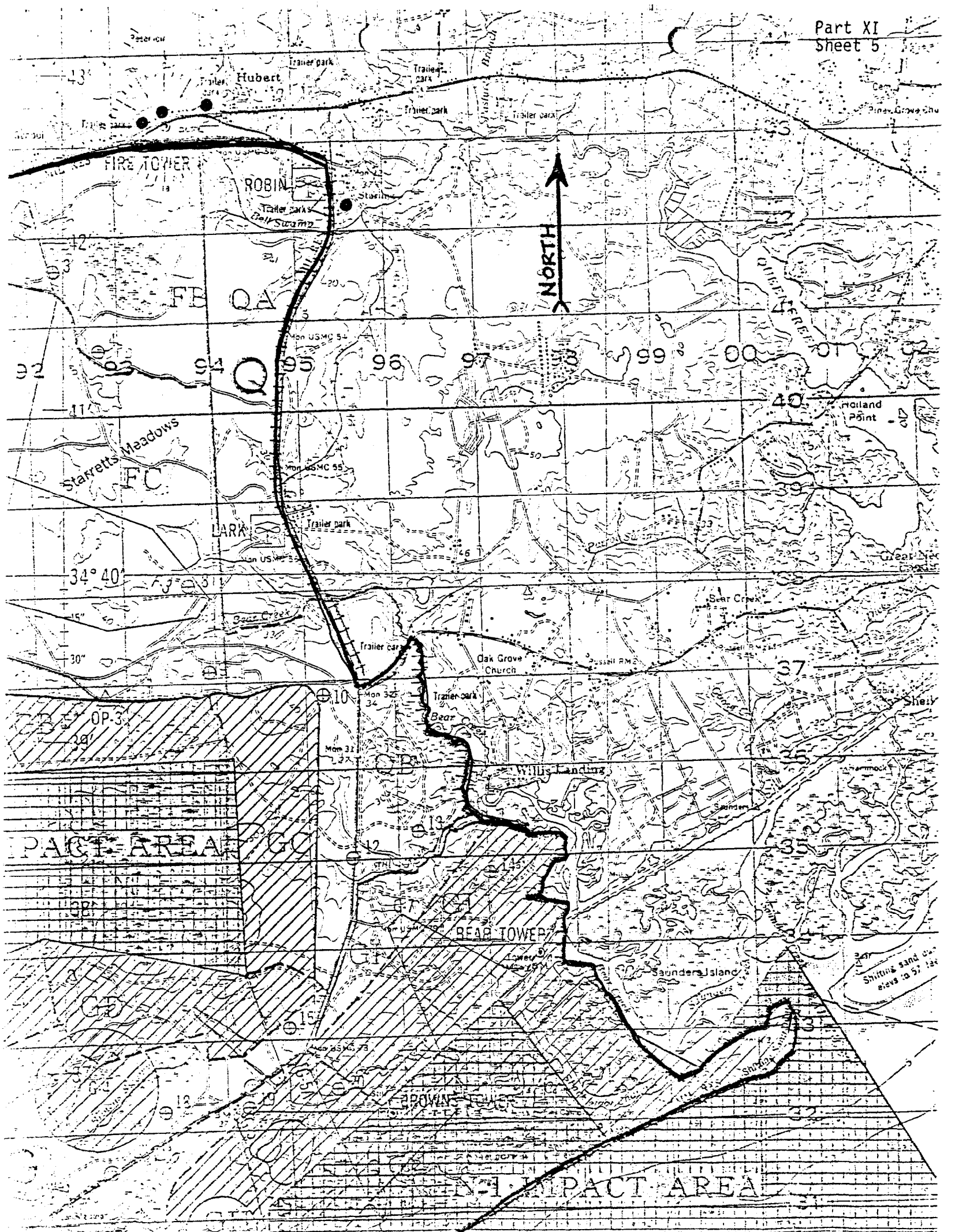
STP-004





STP-006





FIRE TOWER

ROBIN

NORTH

92

94

95

96

97

99

100

40

41

Starretts Meadows

LARA

Oak Grove Church

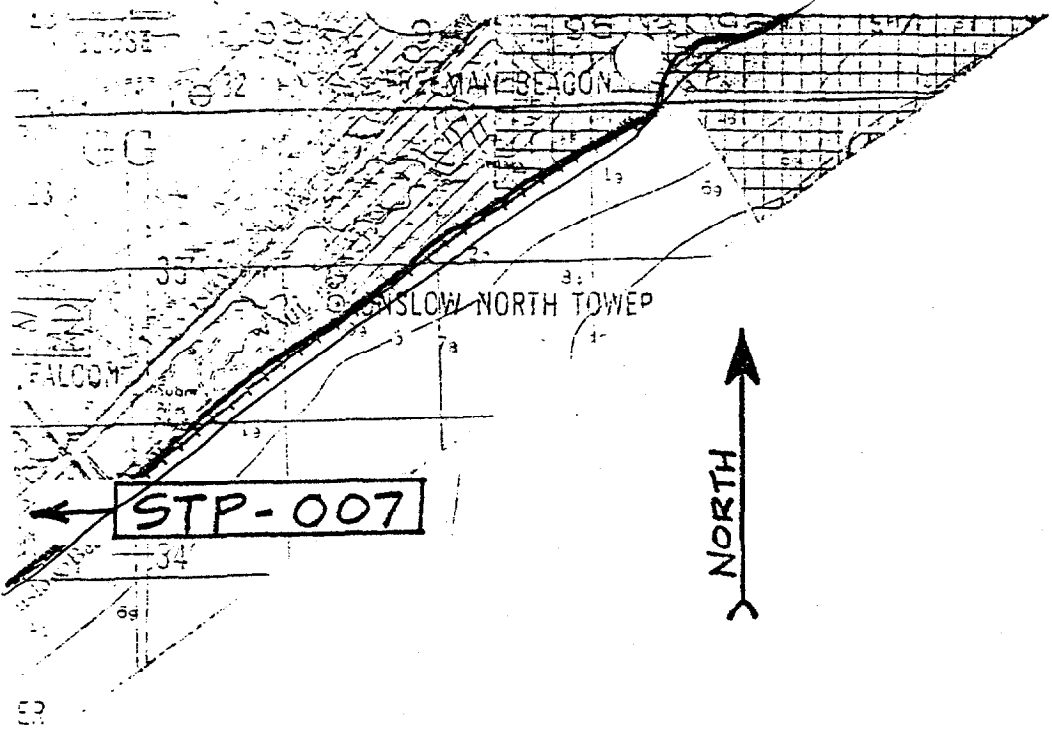
Willis Landing

BEAR TOWER

IMPACT AREA

IMPACT AREA

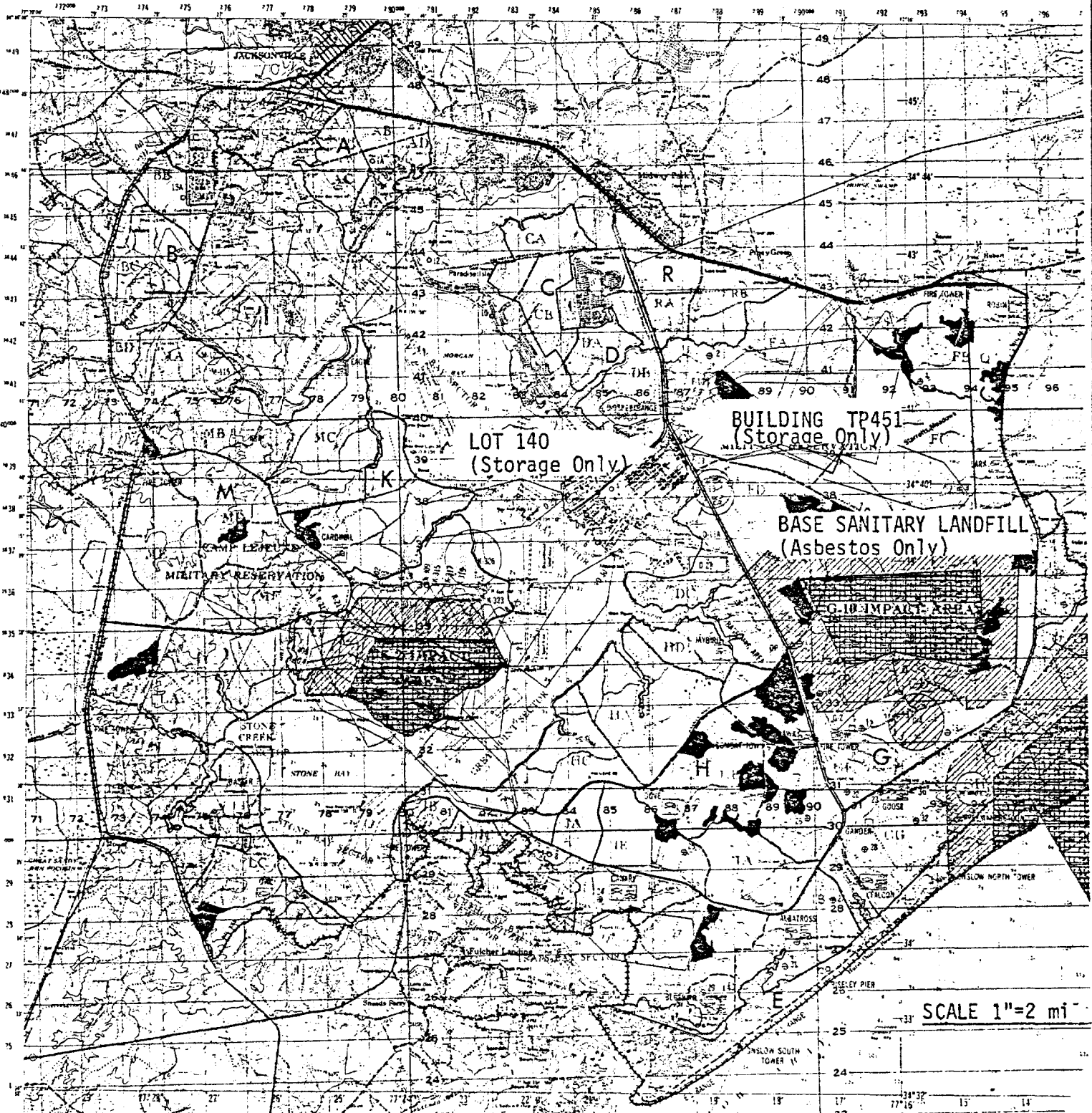
Shifting sand dunes
elev. to 57' sea



V. FACILITY DRAWING (see page 4)

Marine Corps Base, Camp Lejeune
EPA ID No. NC 6170022580

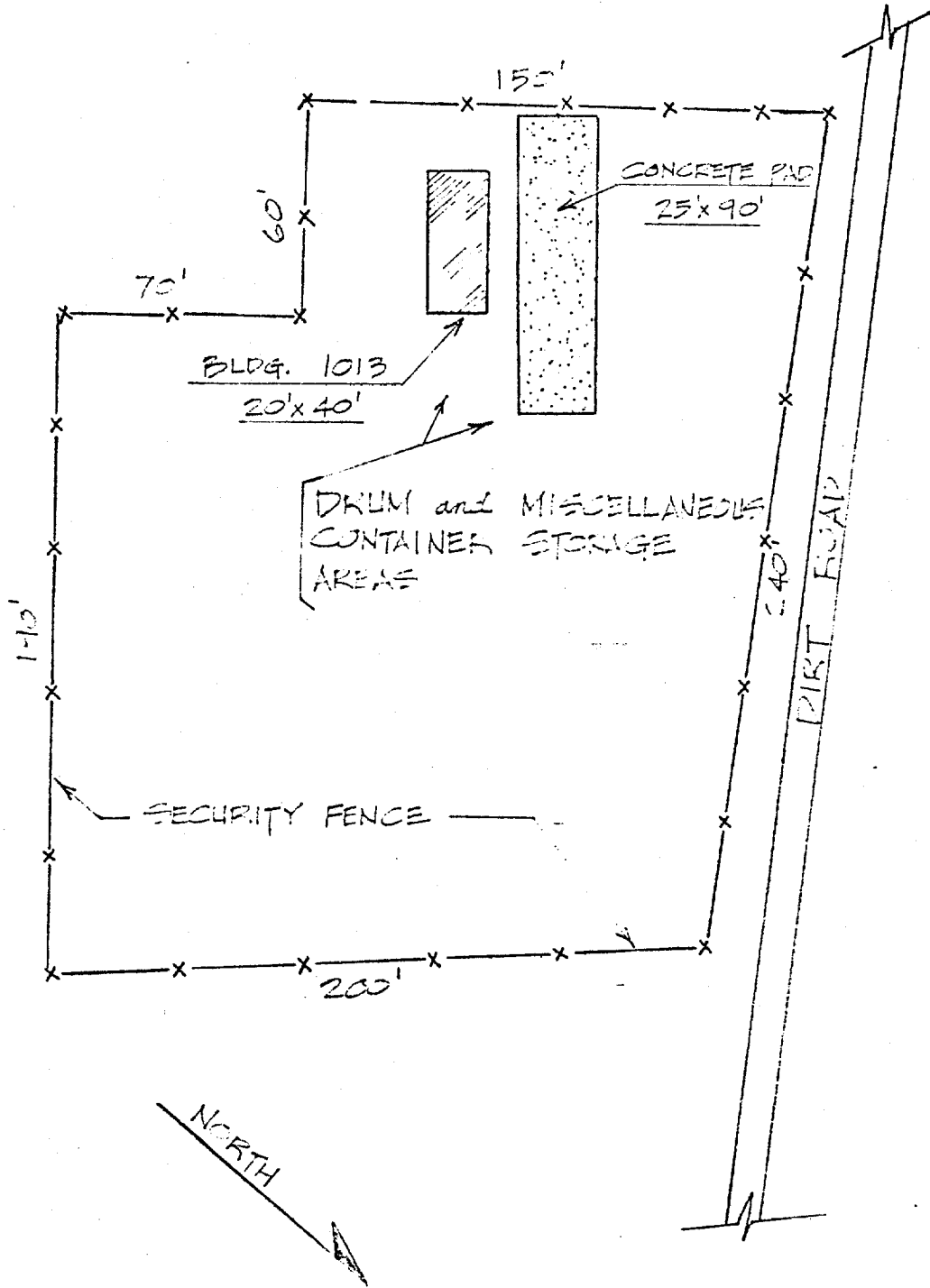
SITE LOCATION MAP
(See Sheets 5A and 5B for Detail)



NOTE: Department of Defense is working with EPA Headquarters to develop a coordinated, workable approach on past hazardous waste disposal sites. Information will be provided when it becomes available.

R.K. THAYER

5TH ST. STREET EXTENSION



SCALE:
1" = 50'

HAZARDOUS WASTE
STORAGE AREA
LOT 140

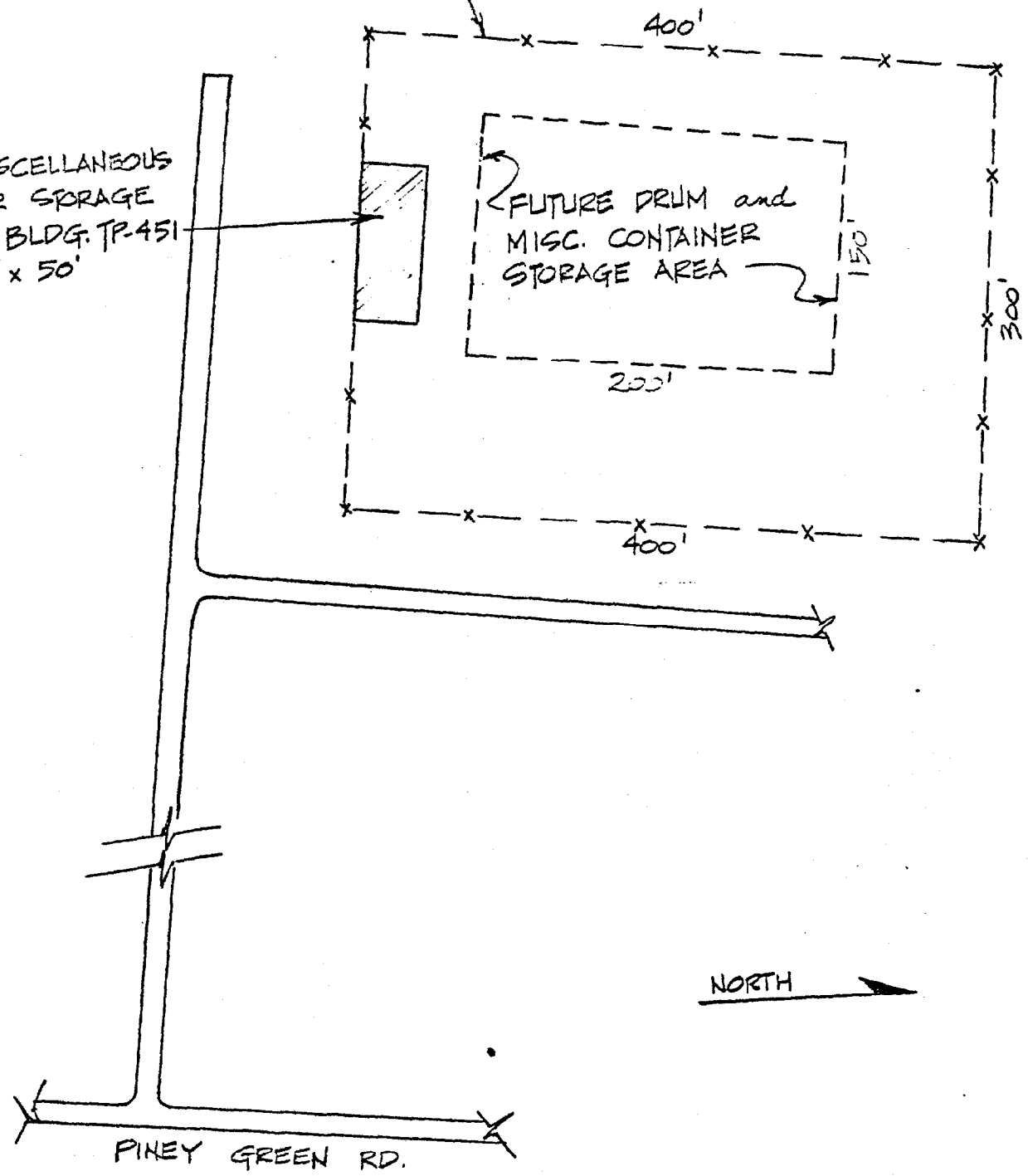
FACILITY DRAWING

MARINE CORPS BASE
CAMP LEJEUNE, N.C.

PLANNED SECURITY
FENCE

EXIST. MISCELLANEOUS
CONTAINER STORAGE
AREA - BLDG. TP-451
100' x 50'

FUTURE DRUM and
MISC. CONTAINER
STORAGE AREA



SCALE:
1" = 100'

STORAGE AREA
BLDG. TP-451

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters).

Approved OMB No. 158-S80004

FORM 3		U.S. ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS WASTE PERMIT APPLICATION <i>Consolidated Permits Program</i> <small>(This information is required under Section 3005 of RCRA.)</small>	I. EPA I.D. NUMBER <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">F</td><td style="width:10%;">N</td><td style="width:10%;">C</td><td style="width:10%;">6</td><td style="width:10%;">1</td><td style="width:10%;">7</td><td style="width:10%;">0</td><td style="width:10%;">0</td><td style="width:10%;">2</td><td style="width:10%;">2</td><td style="width:10%;">5</td><td style="width:10%;">8</td><td style="width:10%;">0</td><td style="width:10%;">1</td> </tr> </table>	F	N	C	6	1	7	0	0	2	2	5	8	0	1
F	N	C	6	1	7	0	0	2	2	5	8	0	1				

FOR OFFICIAL USE ONLY		COMMENTS
APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	
23	24	

II. FIRST OR REVISED APPLICATION
 Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

2. NEW FACILITY (Complete item below.)

<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>C</th><th>YR.</th><th>MO.</th><th>DAY</th> </tr> <tr> <td style="text-align: center;">8</td><td style="text-align: center;">PRE</td><td style="text-align: center;">1945</td><td></td> </tr> <tr> <td style="text-align: center;">15</td><td style="text-align: center;">23 24</td><td style="text-align: center;">25 26</td><td style="text-align: center;">27 28</td> </tr> </table> <p>FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)</p>	C	YR.	MO.	DAY	8	PRE	1945		15	23 24	25 26	27 28	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>YR.</th><th>MO.</th><th>DAY</th> </tr> <tr> <td></td><td></td><td></td> </tr> <tr> <td style="text-align: center;">23 24</td><td style="text-align: center;">25 26</td><td style="text-align: center;">27 28</td> </tr> </table> <p>FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN</p>	YR.	MO.	DAY				23 24	25 26	27 28
C	YR.	MO.	DAY																			
8	PRE	1945																				
15	23 24	25 26	27 28																			
YR.	MO.	DAY																				
23 24	25 26	27 28																				

B. REVISED APPLICATION (place an "X" below and complete Item I above)

1. FACILITY HAS INTERIM STATUS

2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.
2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
Disposal:					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C	DUP	T/A	C	I
---	-----	-----	---	---

LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	100000	G		7				
2		See Note # 1 & #2			8				
3		on Page 4 of 5			9				
4	D 8 0 10		A		10				

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

NA

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES							
	1. PROCESS CODES (enter)						2. PROCESS DESCRIPTION (if a code is not entered in D(1))							
X-1	K	0	5	4	900	P	T	0	3	D	8	0		
X-2	D	0	0	2	400	P	T	0	3	D	8	0		
X-3	D	0	0	1	100	P	T	0	3	D	8	0		
X-4	D	0	0	2										included with above

EPA I.D. NUMBER (enter from page 1)										FOR OFFICIAL USE ONLY																			
W	N	C	6	1	7	0	0	2	2	5	8	0	T/A	C	1	W	DUP				T/A	C	2	DUP					
1	2	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES			
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))		
23	24	25	26	27 - 29	27 - 29	27 - 29	27 - 29
1	F 0 0 1	10500	P	S 0 1			
2	F 0 0 2	6800	P	S 0 1			
3	F 0 0 3	900	P	S 0 1			
4	F 0 0 5	1800	P	S 0 1			
5	F 0 1 7	12600	P	S 0 1			
6	U 0 0 2	100	P	S 0 1			
7	U 0 1 3	12760			See Note #1 on Page 4 of 5)		
8	U 1 2 2	200	P	S 0 1			
9	D 0 0 4	1000	P	S 0 1			
10			P	S 0 1			
11							
12	D 0 0 1	142000	P	S 0 1			
13	D 0 0 2	25000	P	S 0 1			
14	D 0 0 3	100	P	S 0 1			
15							
16							
17					(See Note #2 on Page 4 of 5)		
18							
19							
20							
21							
22							
23							
24							
25							
26							

(enter "A" "B" "C" etc. behind the "3" to identify photocopied pages)

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

Note #1 (From Pages 1 & 3 of 5): Asbestos is generated aboard this Facility during repair or demolition of buildings and utilities. Asbestos wastes are disposed of at the Base Sanitary Landfill in accordance with instructions provided by Solid Waste Disposal Regulations of the State of North Carolina and personnel of the North Carolina Department of Human Resources

Note #2 (From Pages 1 & 3 of 5): Sludges from base sewage treatment plants are not included because there are no industrial or manufacturing operations located aboard base. Steps are underway to analyze sludges for contents.

EPA I.D. NO. (enter from page 1)

S	T/A	C
F	N	C
6	1	7
0	0	2
2	2	5
8	0	6
12	13	14

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail) **SEE ATTACHMENT B**

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

3	4	4	0	0	0
65	66	67	68	69	71

7	7	2	0	0	0
72	74	75	76	77	79

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

C	E	NA																	
12	14																		

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

C	F	NA	C	G	NA														
12	14		15	16															

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

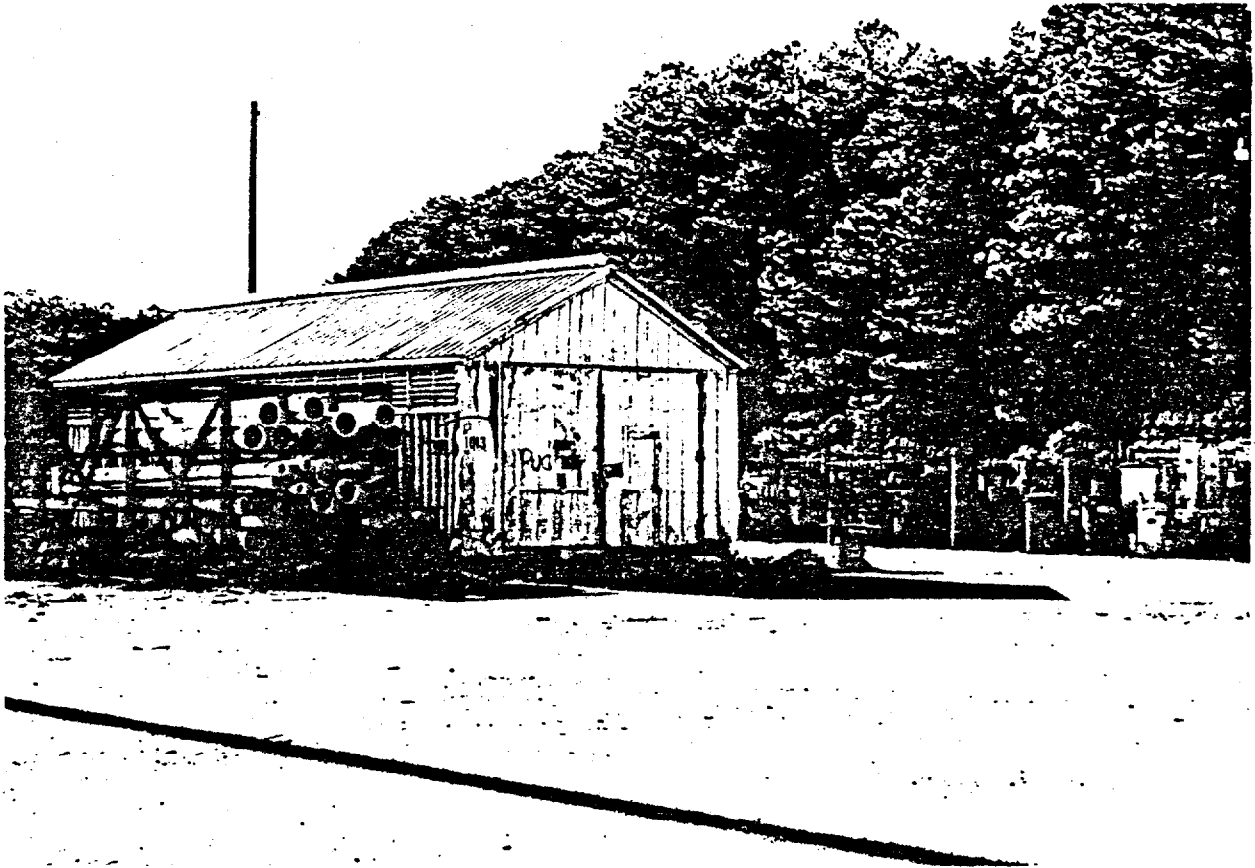
A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
D. B. BARKER MGEN USMC	<i>D.B. Barker</i>	31 OCT 1980

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
NA	NA	

Part VI, EPA Form 3510-3 (6-80)
Marine Corps Base, Camp Lejeune
EPA ID No. NC 6170022580

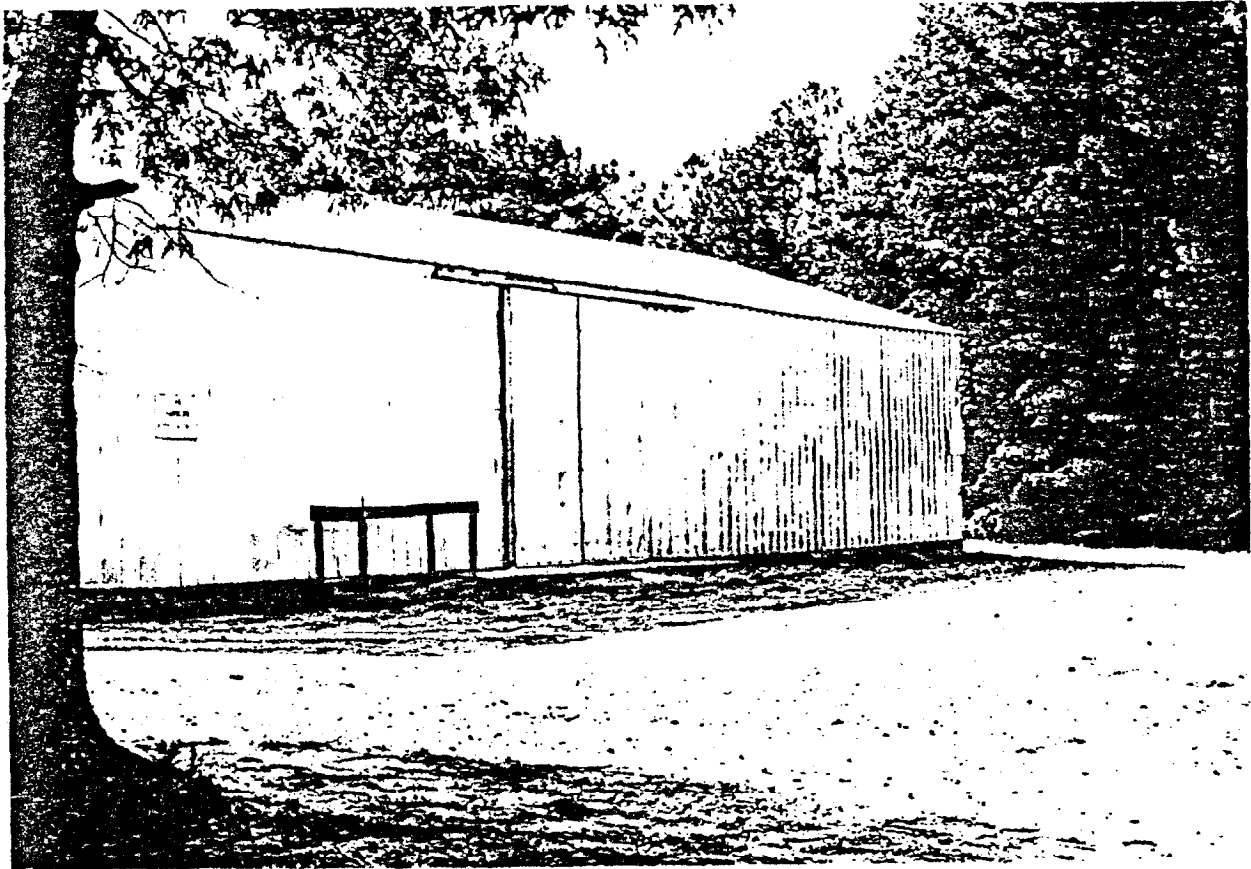


PHOTOGRAPH #1
Lot 140
Taken - 26 October 1980



PHOTOGRAPH #2
Bldg TP-451
Taken - 26 October 1980

Part VI, EPA Form 3510-3 (6-80)
Marine Corps Base, Camp Lejeune
EPA ID No. NC 6170022580

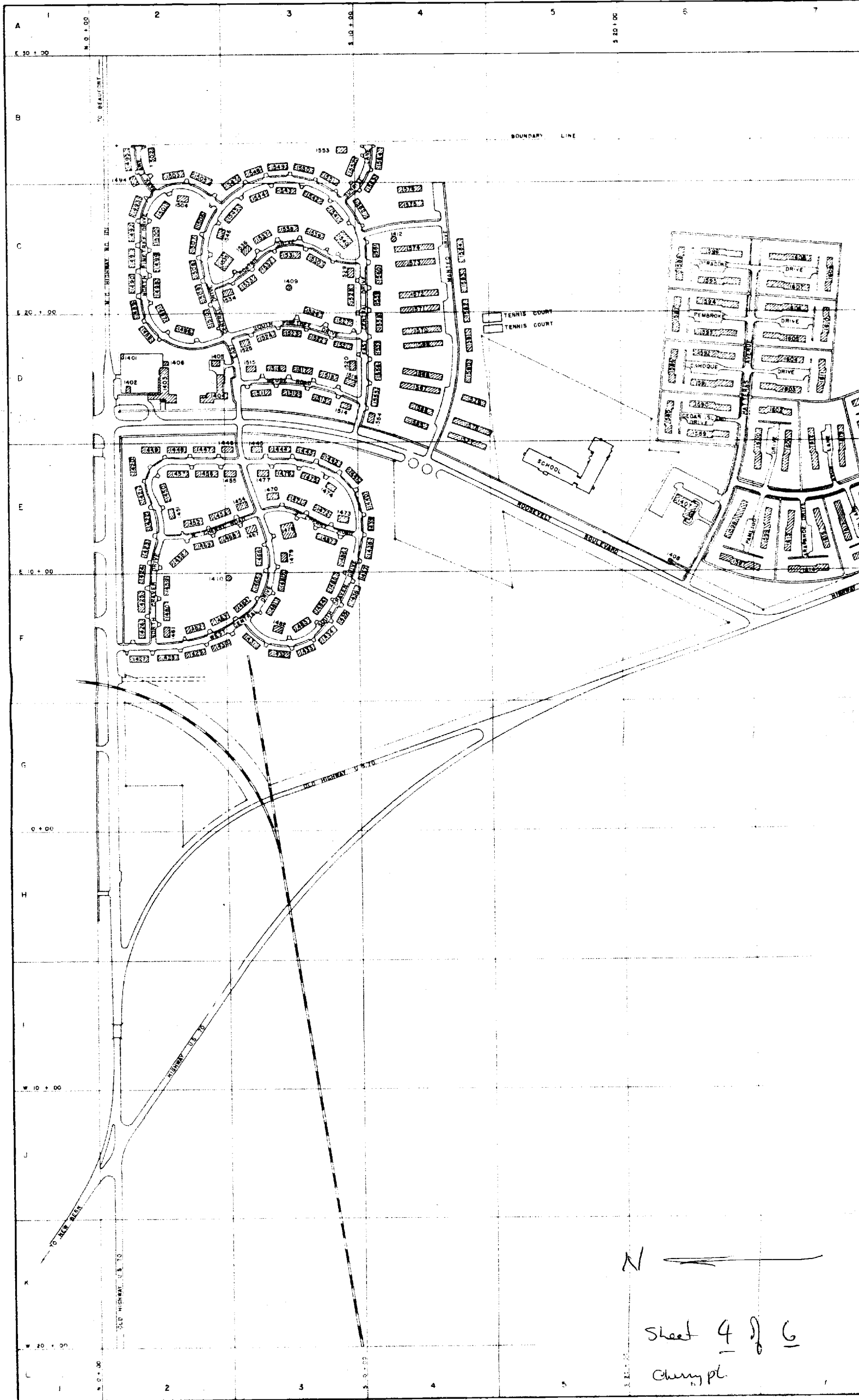


PHOTOGRAPH #3
Bldg TP-451
Taken - 26 October 1980



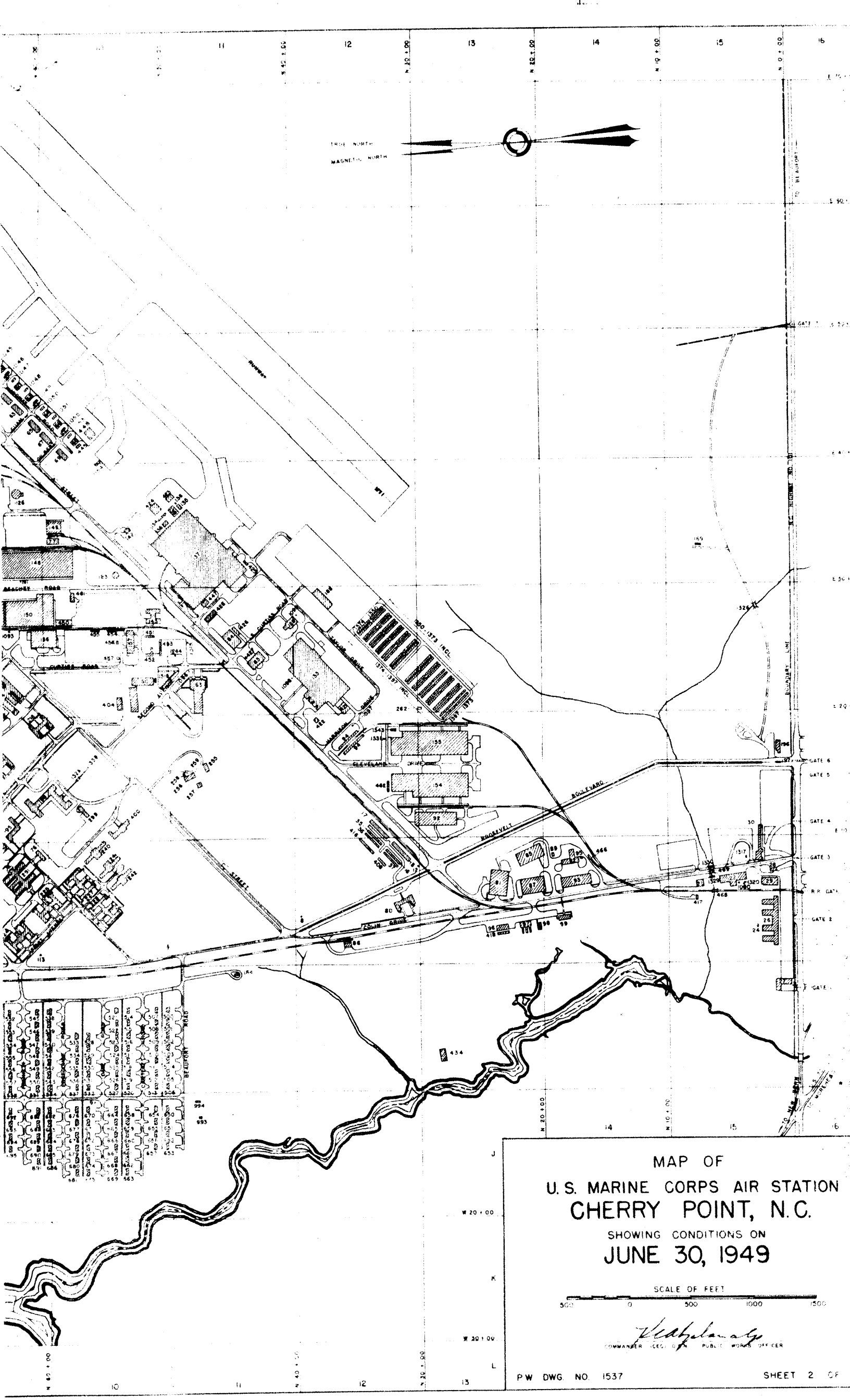
P
E
R

Sheet 3/6
Cherry Pl.



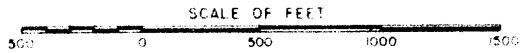
N

Sheet 4 of 6
Cherry pl.

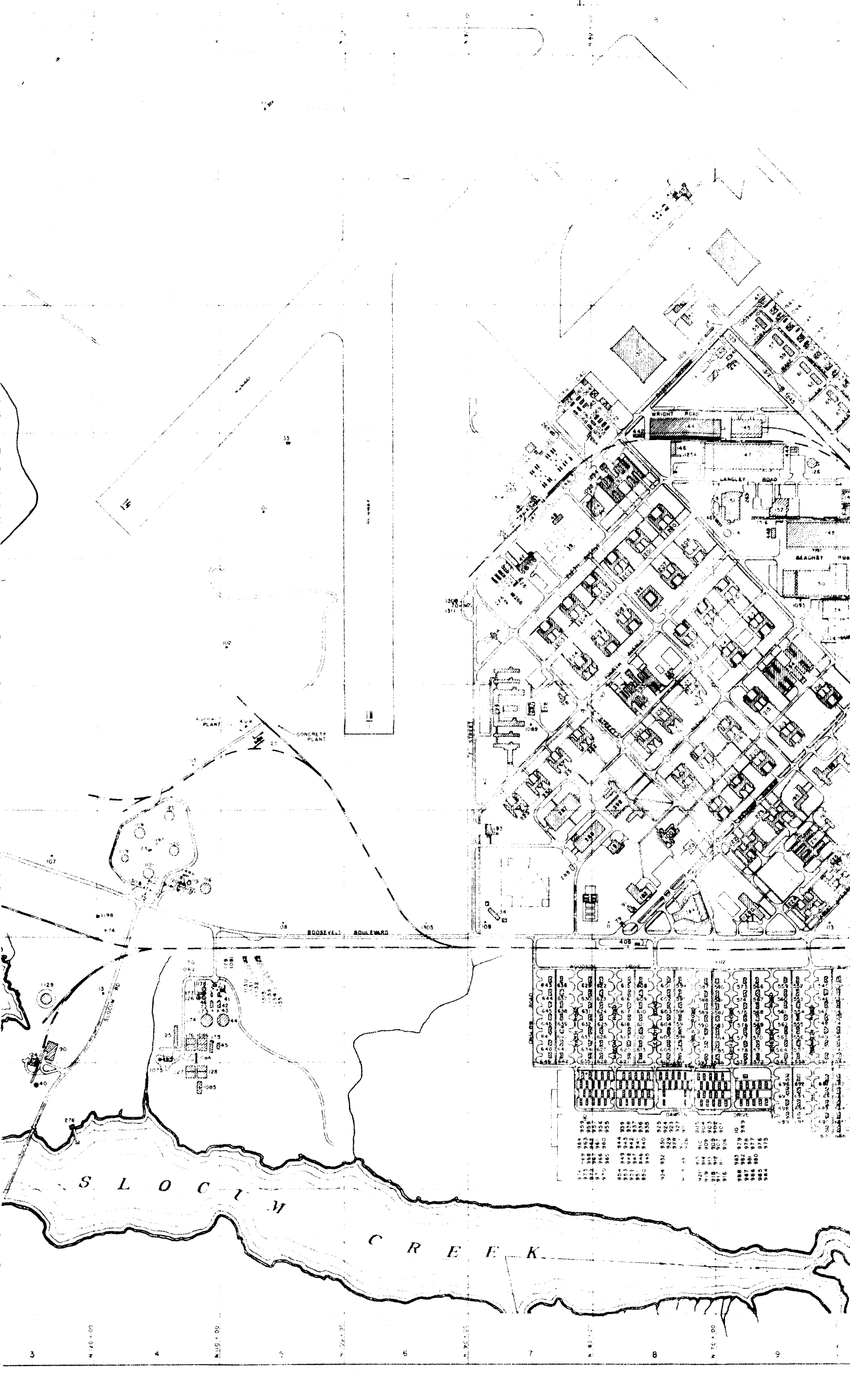


MAP OF
 U.S. MARINE CORPS AIR STATION
 CHERRY POINT, N.C.

SHOWING CONDITIONS ON
 JUNE 30, 1949

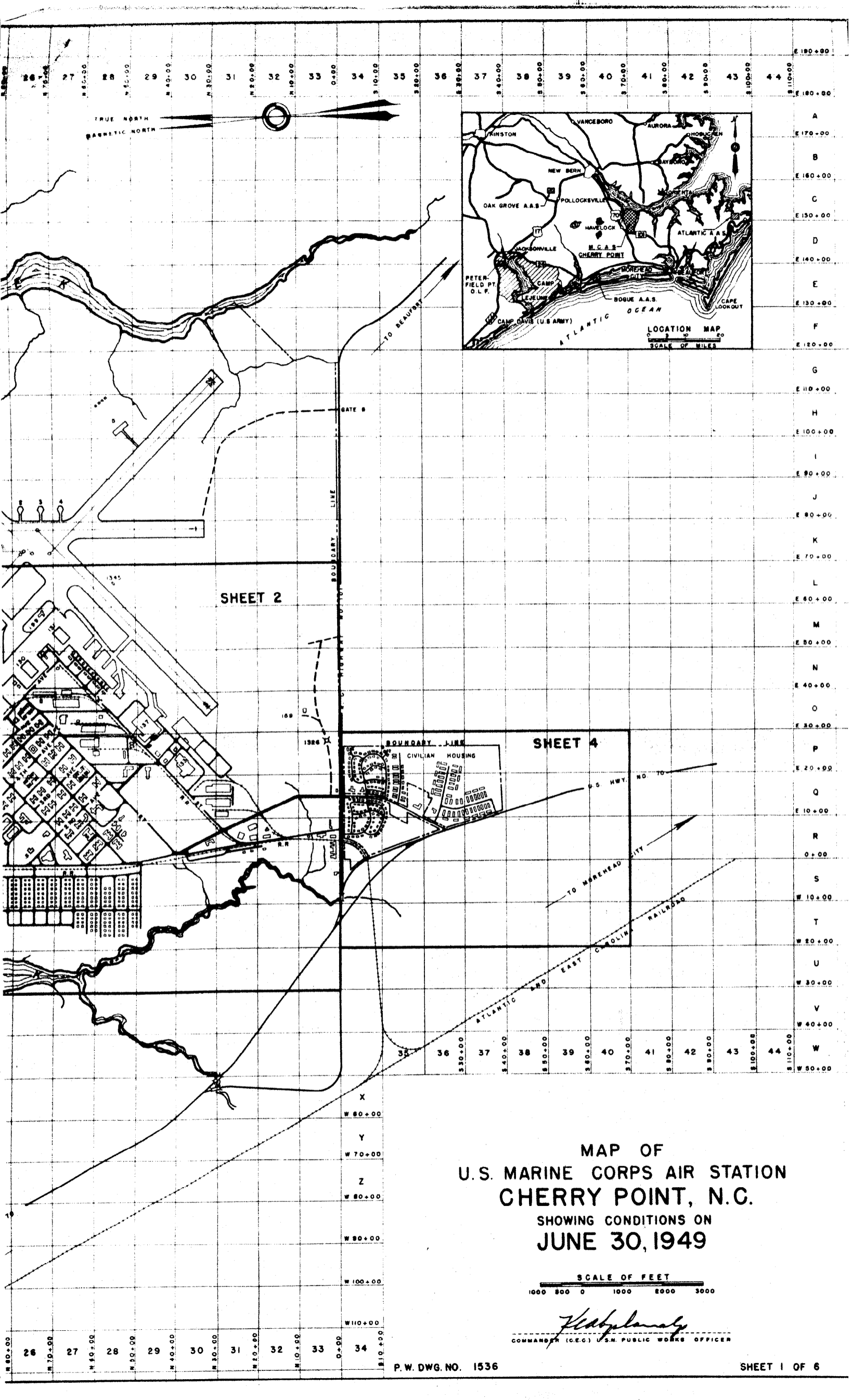


K. J. Johnson
 COMMANDER (CIVILIAN) PUBLIC WORKS OFFICER



314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500
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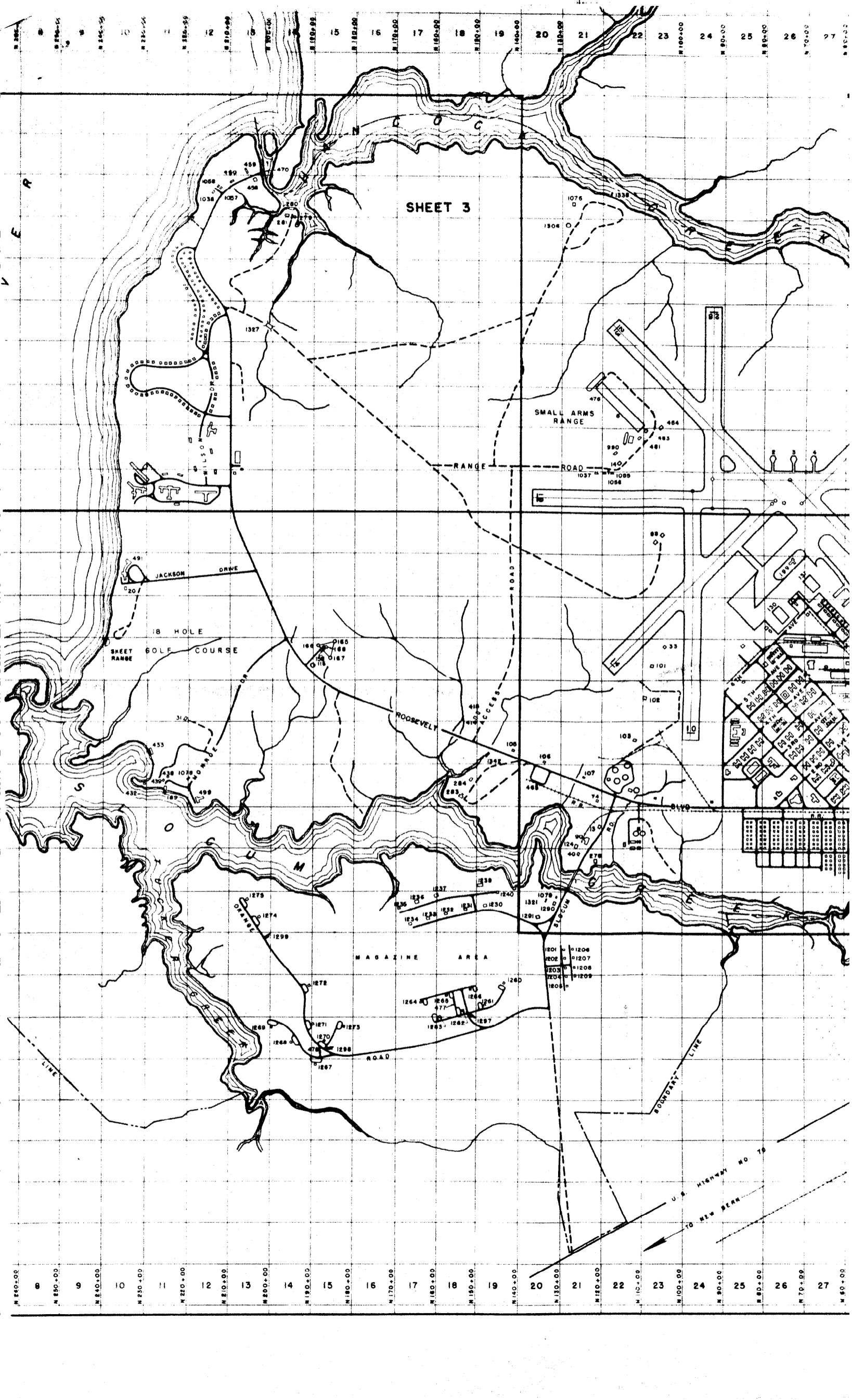
S L O T T M
C R E E K



MAP OF
 U.S. MARINE CORPS AIR STATION
 CHERRY POINT, N.C.
 SHOWING CONDITIONS ON
 JUNE 30, 1949

SCALE OF FEET
 1000 800 0 1000 2000 3000

Flabplanaty
 COMMANDER (C.E.C.) U.S.N. PUBLIC WORKS OFFICER



SHEET 3

SMALL ARMS RANGE

MAGAZINE AREA

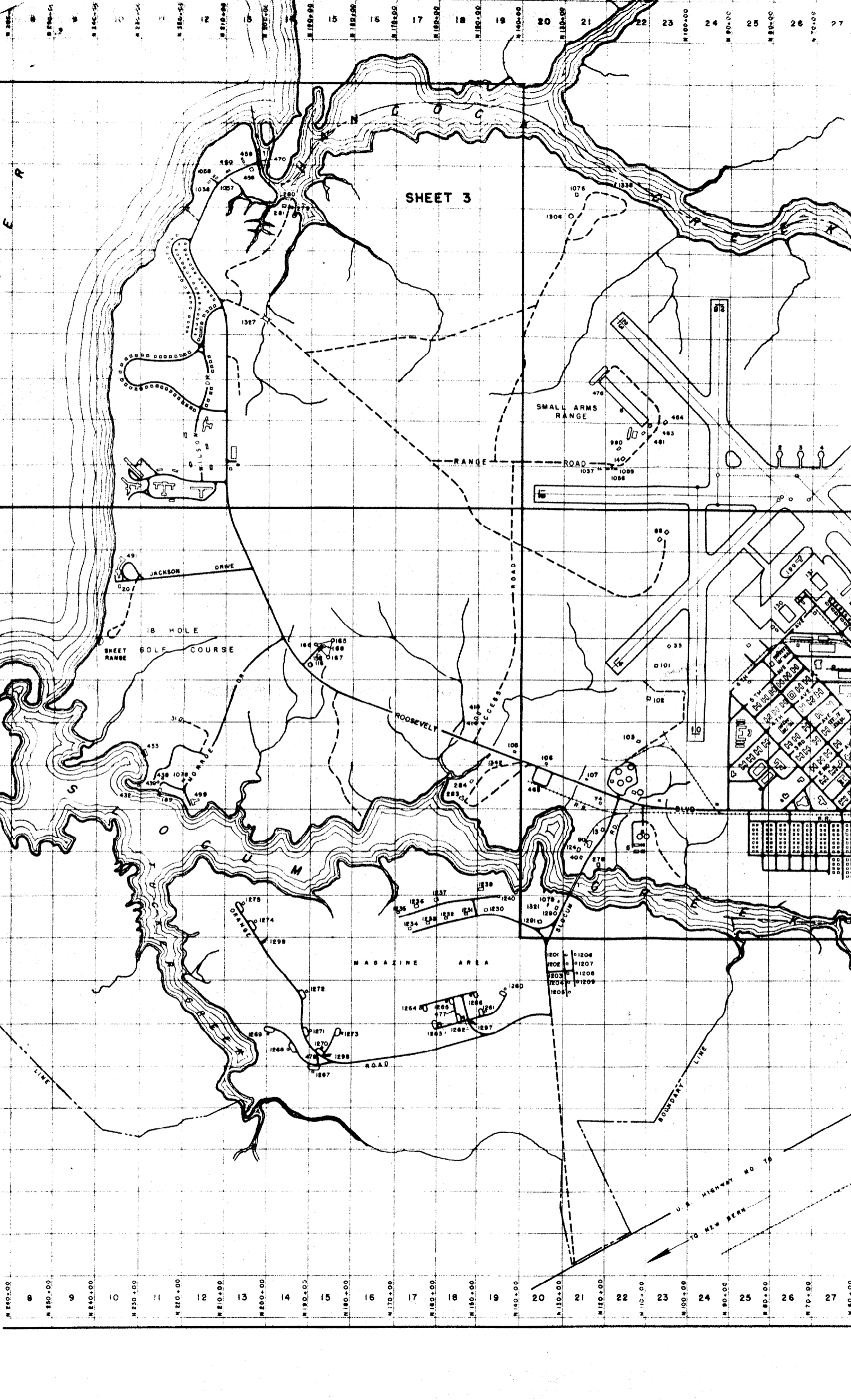
18 HOLE GOLF COURSE

ROOSEVELT ACCESS ROAD

JACKSON DRIVE

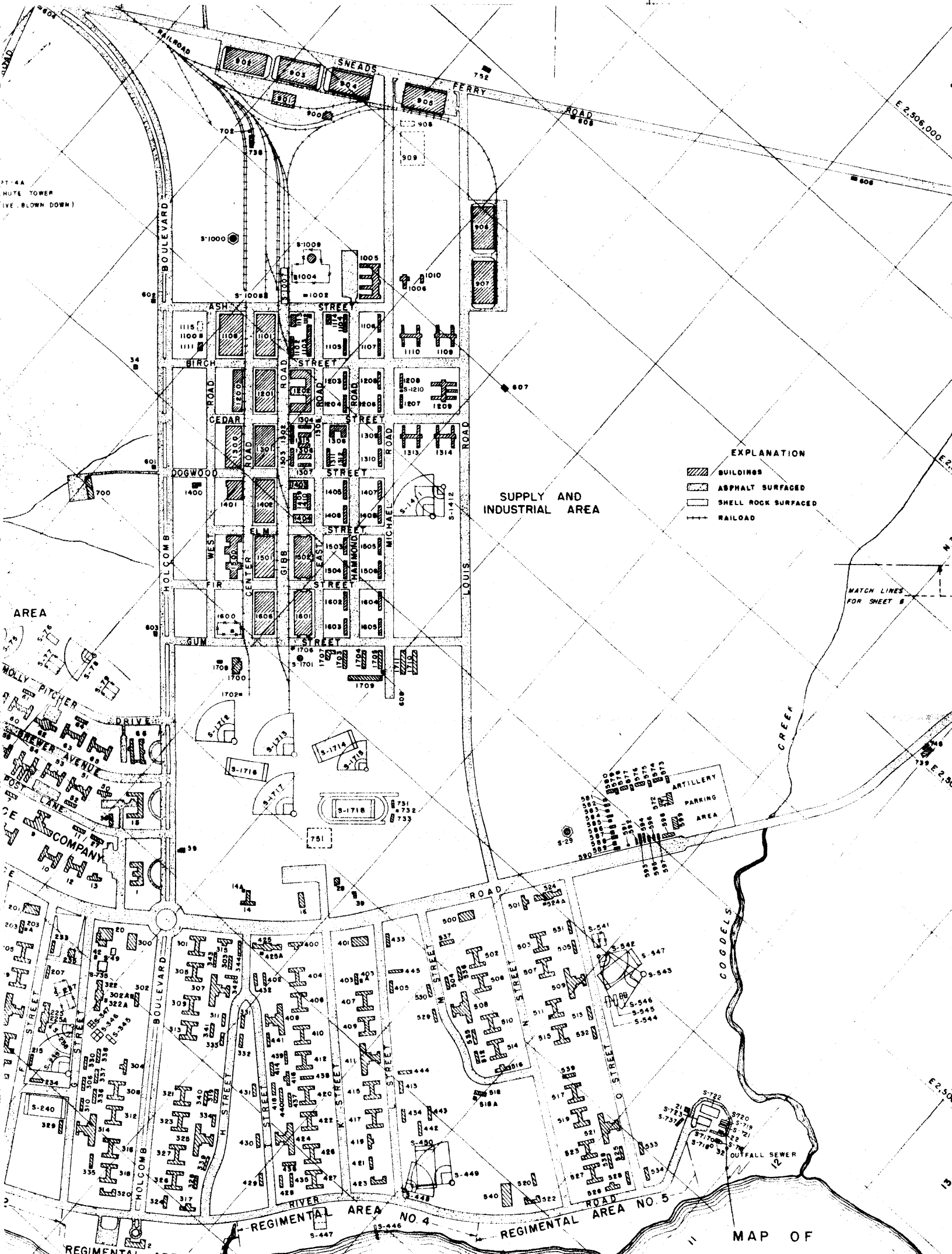
WILSON DRIVE

BOUNDARY LINE
U.S. HIGHWAY NO. 70
TO NEW BERN







15 16 17 18 19 20 21 22 23 24 25 26 27

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27



EXPLANATION

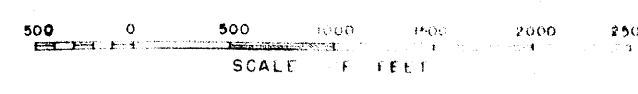
-  BUILDINGS
-  ASPHALT SURFACED
-  SHELL ROCK SURFACED
-  RAILROAD

SUPPLY AND INDUSTRIAL AREA

MAP OF
DIVISION TRAINING AREA

CAMP LEJEUNE, NORTH CAROLINA

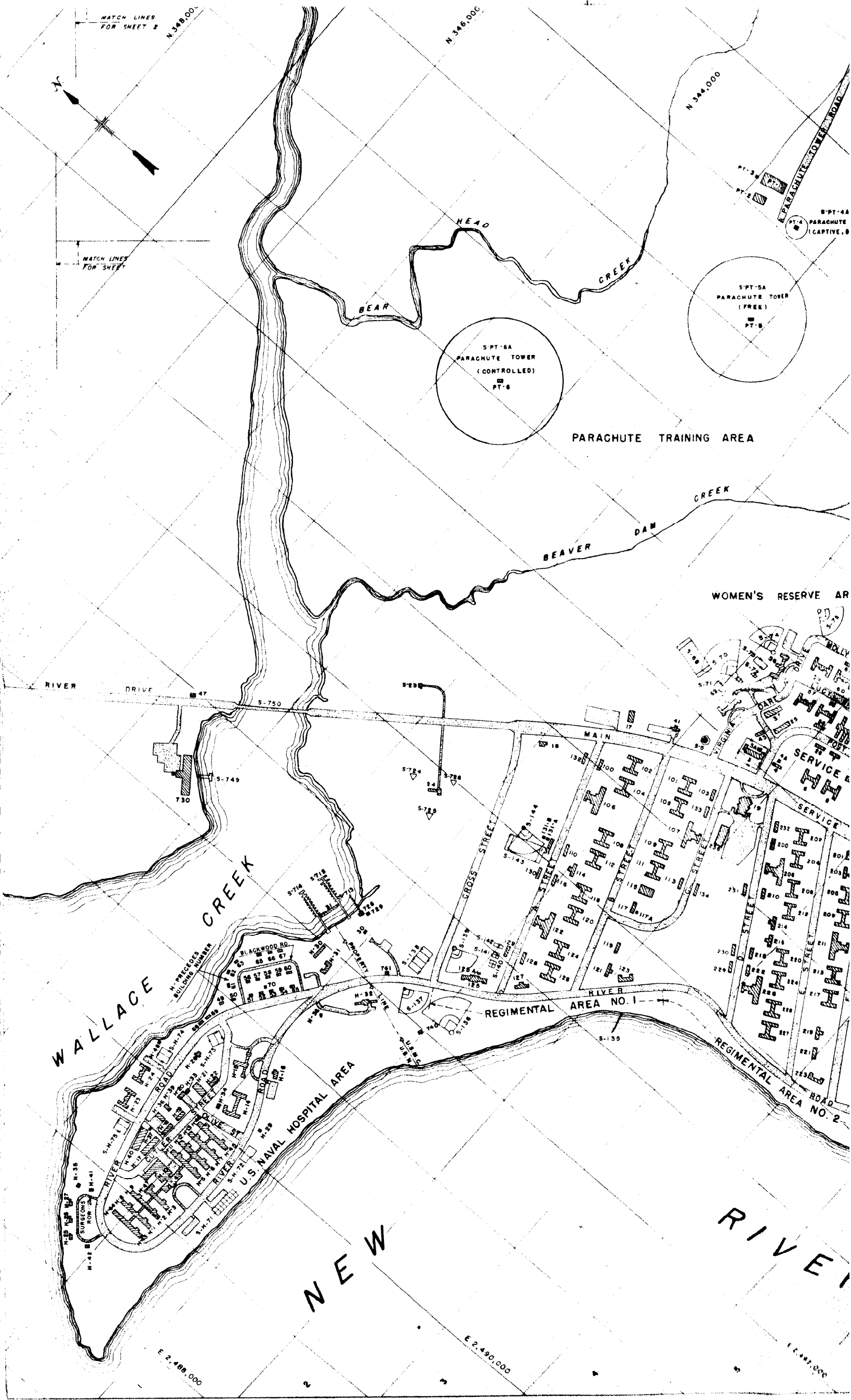
SHOWING CONDITIONS ON
30 JUNE 1949



E. R. Remett
COMMANDER (C E C) U.S.M.
PUBLIC WORKS OFFICER

FOR LEGEND REFER TO SHEET 5-A

SHEET 5 OF



SUPPLY AND INDUSTRIAL AREA

SERVICE COMPANY

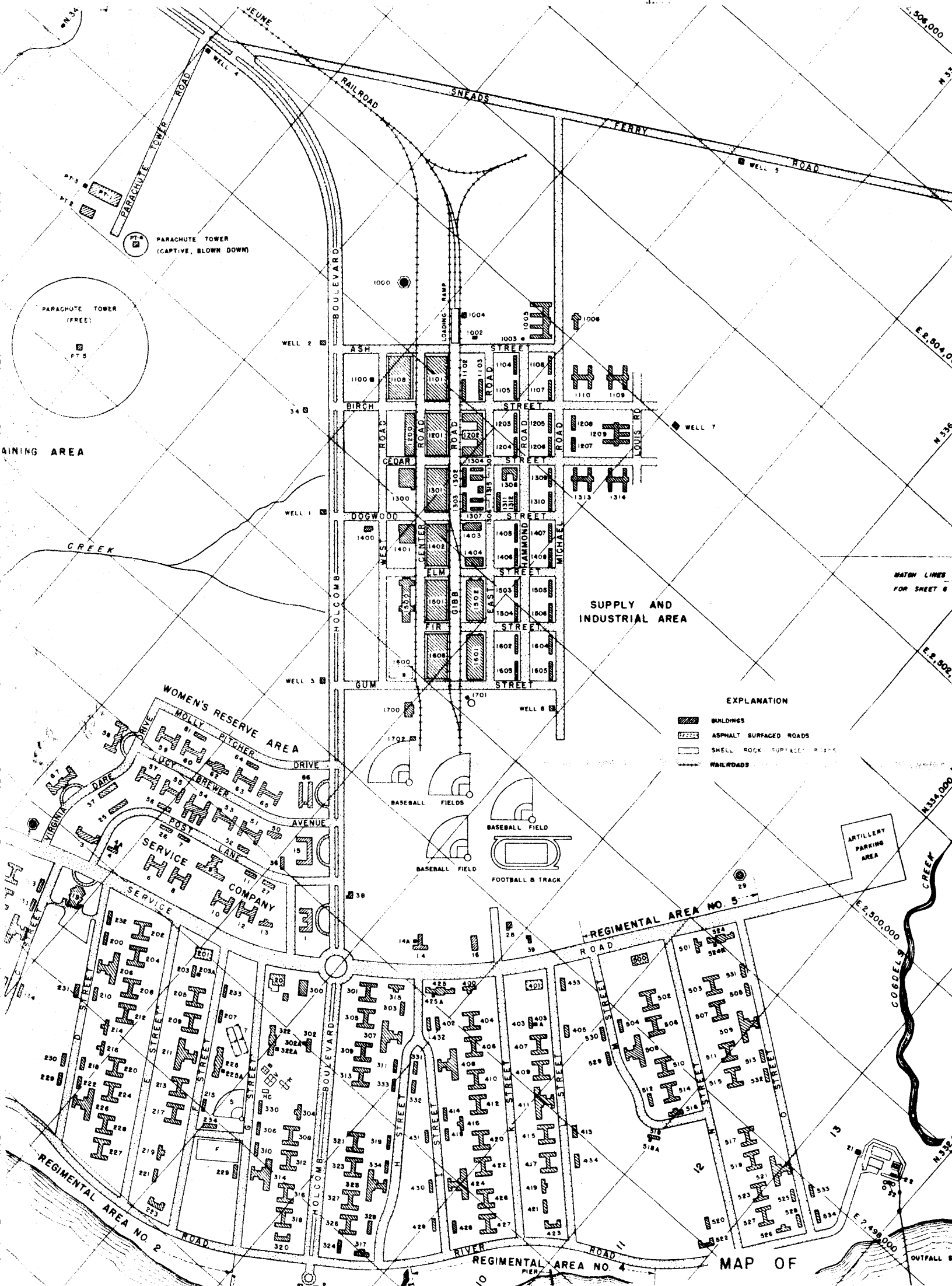
REGIMENTAL AREA No 1

900	16-I	OPTICAL SHOP
901	16-J	ORDNANCE SHOP
902	16-H	ORDNANCE WAREHOUSE NO. 3
903	16-I	ORDNANCE WAREHOUSE NO. 2
904	17-I	ORDNANCE WAREHOUSE
905	17-J	SIGNAL SUPPLY WAREHOUSE
906	16-K	QUARTERMASTER WAREHOUSE NO. 1
907	16-K	QUARTERMASTER WAREHOUSE NO. 2
908	17-J	ELECTRONICS EQUIPMENT STORAGE
909	16-J	ELECTRONICS EQUIPMENT STORAGE
S-1000	15-I	300,000 GAL. ELEVATED WATER TANK
1002	15-J	GAS AND OIL FILLING STATION
1004	15-J	PUMPING STATION
1005	15-J	PUBLIC WORKS OFFICE BUILDING
1006	16-J	CIVILIAN CAFETERIA
S-1007	15-J	RAILROAD LOADING PLATFORM
S-1008	15-J	RAILROAD SERVICE PIT
S-1009	15-J	600,000 GAL. FUEL OIL STORAGE TANK
1010	16-K	COLORLED MALE EMPLOYEES' QUARTERS
1100	14-I	FILLING STATION
1101	14-J	WAREHOUSE
1102	15-J	EQUIPMENT STORAGE
1103	15-J	EQUIPMENT STORAGE
1104	15-J	EQUIPMENT STORAGE
1105	15-J	EQUIPMENT STORAGE
1106	15-K	EQUIPMENT STORAGE
1107	15-K	EQUIPMENT STORAGE
1108	14-J	WAREHOUSE
1109	15-K	BARRACKS
1110	15-K	BARRACKS
1111	14-I	PX GARAGE & GREASE
1112	15-J	OIL STORAGE
1113	15-J	EQUIPMENT STORAGE
1114	15-J	EQUIPMENT STORAGE
1115	14-I	PX FILLING STATION ADDITIONAL FACILITIES
1200	14-J	COMMISSARY
1201	14-J	WAREHOUSE
1202	14-J	CAMP SHOP BUILDING
1203	15-K	EQUIPMENT STORAGE
1204	15-K	EQUIPMENT STORAGE
1205	15-K	EQUIPMENT STORAGE
1206	15-K	EQUIPMENT STORAGE
1207	15-K	CAMP EXCHANGE
1208	15-K	ADMINISTRATION BUILDING
1209	15-K	MESS HALL
S-1210	18-K	MECHANICAL PIT
1300	14-J	COLD STORAGE BUILDING
1301	14-J	WAREHOUSE
1302	14-K	EQUIPMENT STORAGE
1303	14-K	EQUIPMENT STORAGE
1304	14-K	LUMBER STORAGE SHED
1305	14-K	LUMBER STORAGE SHED
1306	14-K	LUMBER STORAGE SHED
1307	14-K	LUMBER STORAGE SHED
1308	14-K	BALCON BUILDING
1309	15-K	EQUIPMENT STORAGE
1310	14-K	EQUIPMENT STORAGE
1311	14-K	EQUIPMENT STORAGE
1312	14-K	EQUIPMENT STORAGE
1313	15-K	BARRACKS
1314	15-L	BARRACKS
1315	14-K	LUMBER DRYING KLIN
1400	15-J	FIRE HOUSE
1401	13-K	BAKERY
1402	13-K	WAREHOUSE
1403	14-K	CAMP EXCHANGE WAREHOUSE
1404	14-K	RECLAMATION BUILDING
1405	14-K	EQUIPMENT STORAGE
1406	14-K	EQUIPMENT STORAGE
1407	14-K	TIRE & REPAIR SHOP
1408	14-L	EQUIPMENT STORAGE
1409	14-K	UPHOLSTERY AND CARPENTER SHOP
1410	14-K	EQUIPMENT STORAGE
S-1411	14-L	BASEBALL FIELD
S-1412	14-L	SOFTBALL FIELD
1500	13-K	LAUNDRY
1501	13-K	WAREHOUSE
1502	13-K	CAMP GARAGE AND REPAIR SHOP
1503	14-L	EQUIPMENT STORAGE
1504	13-L	EQUIPMENT STORAGE
1505	14-L	EQUIPMENT STORAGE
1506	14-L	EQUIPMENT STORAGE
1600	12-K	PUMPING STATION
1601	13-L	DIVISION GARAGE AND REPAIR SHOP
1602	13-L	EQUIPMENT STORAGE
1603	13-L	EQUIPMENT STORAGE
1604	13-L	EQUIPMENT STORAGE
1605	13-L	EQUIPMENT STORAGE
1606	13-K	WAREHOUSE

1	10-L	CAMP HEADQUARTERS
2	8-N	DIVISION HEADQUARTERS
3	10-J	BRIG
3A	10-J	WASH ROOM AND STORE ROOM
4	10-J	CAMP EXCHANGE
4A	10-J	CAMP EXCHANGE STOREHOUSE
5-5	9-J	300,000 GAL. ELEVATED WATER TANK
6	10-K	BARRACKS
7	10-K	BATTALION WAREHOUSE
8	10-K	BARRACKS
9	10-K	MESS HALL
10	10-K	BARRACKS
11	10-K	BATTALION WAREHOUSE
12	10-L	BARRACKS
13	10-L	BATTALION ADMINISTRATION BUILDING
14	11-M	HOBESS HOUSE
14A	11-M	HOBESS HOUSE STOREHOUSE
15	11-L	CAMP DISPENSARY
16	11-M	PROTESTANT CHAPEL
17	9-I	CATHOLIC CHAPEL
18	8-I	FIRE HOUSE
19	9-J	CAMP THEATER
20	10-L	WATER TREATMENT PLANT
21	12-Q	SEWAGE PUMPING STATION NO. 1
22	12-Q	SLUDGE PUMPING & CHLORINATION INCINERATOR
S-23	8-G	RADIO TRANSMISSION BUILDING
24	7-H	TAILOR SHOP
25	10-J	BATTALION WAREHOUSE
26	10-K	PHOTOGRAPHIC LABORATORIES
27	10-L	WALLER GUNNERY TRAINER BUILDING
28	11-M	300,000 GAL. ELEVATED WATER TANK
S-29	13-O	TOILETS
30	6-H	BOAT HOUSE
31	6-H	SLUDGE CONTROL STATION
32	12-Q	SEWAGE PUMPING STATION
34	14-I	MEDICAL WAREHOUSE
36	10-L	UNIFORM SHOP & CENTRAL P.X.
37	10-J	BY-PASS PUMPING STATION
38	11-L	MARK I GUNNER TRAINER BUILDING
39	11-M	RED CROSS BUILDING
41	9-I	CHEMICAL STORAGE BUILDING
42	10-L	COBBLER SHOP
43	10-J	SEWAGE PUMPING STATION NO. 3
47	6-F	WASTE WASH WATER TANK
S-49	10-L	TRUCK REPAIR SHOP
700	12-J	OIL STORAGE HOUSE
702	16-I	MARINE RAILWAY
S-713	6-H	BOAT DOCK
S-714	6-H	BOAT DOCK
S-715	6-H	SLUDGE DIGESTION TANK NO. 1
S-716	12-Q	SLUDGE DIGESTION TANK NO. 2
S-717	12-Q	SLUDGE DIGESTION TANK NO. 3
S-718	12-Q	PRIMARY SETTLING TANK NO. 1
S-719	12-Q	PRIMARY SETTLING TANK NO. 2
S-720	12-Q	PRIMARY SETTLING TANK NO. 3
S-721	12-Q	SLUDGE DRYING BEDS
S-722	12-Q	SLUDGE DRYING BEDS
S-724	7-H	RADIO TRANSMISSION TOWER
S-725	7-H	RADIO TRANSMISSION TOWER
S-726	7-H	RADIO TRANSMISSION TOWER
728	6-H	BOAT MAINTENANCE BLDG.
729	6-H	PAINT STORAGE BLDG.
730	6-F	RECREATION PAVILION
731	12-M	UTILITY BUILDING
732	12-M	UTILITY BUILDING
733	12-M	UTILITY BUILDING
S-735	10-L	CLEAR WATER STORAGE BASIN
S-737	12-Q	COMMUNITORS
738	16-I	RAILROAD SHOP BUILDING
739	16-P	STORAGE BUILDING
740	5-I	STEAM FLOWMETER BUILDING
741	6-I	RULANE GAS METER BUILDING
742	15-F	BOOSTER PUMPING STATION
748	16-P	PARTS STORAGE
S-749	6-F	PIER
S-750	7-F	CONCRETE BRIDGE WALLACE CREEK
751	12-M	FIELD HOUSE
752	17-J	TARGET SHED AND OFFICE
50	11-K	BATTALION ADMINISTRATION BUILDING
51	11-K	BARRACKS
52	10-K	WAREHOUSE
53	10-K	BARRACKS
54	10-K	MESS HALL
55	10-J	BARRACKS
56	10-J	WAREHOUSE
57	10-J	BARRACKS
58	10-J	BACHELOR OFFICERS' QUARTERS
59	11-J	BARRACKS
60	11-J	BARRACKS
61	11-J	WAREHOUSE
62	11-K	CAMP EXCHANGE AND SERVICE CLUB
63	11-K	BARRACKS
64	11-K	WAREHOUSE
65	11-K	FIELD MEDICAL RESEARCH LAB
66	11-K	FIELD MEDICAL RESEARCH LAB
67	10-J	BACHELOR OFFICERS' QUARTERS
S-68	10-I	FOOTBALL FIELD
S-69	10-I	TENNIS COURTS
S-70	10-I	BASEBALL FIELD
S-71	10-J	BADMINTON COURT
S-72	10-J	BADMINTON COURT
S-73	10-J	TENNIS COURTS
S-74	10-J	SOFTBALL FIELD
S-75	11-J	SOFTBALL FIELD
S-76	11-J	BASKETBALL COURT
S-77	11-J	TENNIS COURTS
S-78	11-J	SOFTBALL FIELD
S-79	11-K	TENNIS COURTS
1700	12-L	CENTRAL HEATING PLANT
S-1701	13-L	420,000 GAL. FUEL OIL STORAGE TANK
1702	12-L	SCALE HOUSE
1703	13-L	EQUIPMENT STORAGE
1704	13-L	EQUIPMENT STORAGE
1705	13-L	EQUIPMENT STORAGE
1706	13-L	FUEL PUMPING STATION
1707	13-L	COMMUNICATION WAREHOUSE
1708	12-K	HOT WELL
1709	13-L	EQUIPMENT STORAGE
1710	13-M	EQUIPMENT STORAGE
1711	13-M	EQUIPMENT STORAGE
S-1712	12-L	BASEBALL FIELD
S-1713	12-L	BASEBALL FIELD
S-1714	12-M	FOOTBALL FIELD
S-1715	12-M	SOFTBALL FIELD
S-1716	12-L	FOOTBALL FIELD
S-1717	12-M	BASEBALL FIELD
S-1718	12-M	FOOTBALL FIELD AND TRACK

MARINE CORPS WOMEN'S RESERVE AREA

100	9-I	BATTALION WAREHOUSE
101	9-J	BARRACKS
102	9-I	BARRACKS
103	9-J	BATTALION WAREHOUSE
104	9-I	BARRACKS
105	9-J	BARRACKS
106	8-I	MESS HALL
107	9-J	MESS HALL
108	8-J	BARRACKS
109	8-J	BARRACKS
110	8-I	BATTALION WAREHOUSE
111	8-J	BARRACKS
112	8-J	BARRACKS
113	8-J	BATTALION WAREHOUSE
114	9-J	BATTALION ADMINISTRATION BUILDING
115	8-J	REGIMENTAL THEATER
116	7-I	BATTALION WAREHOUSE
117	8-J	CAMP EXCHANGE
117A	8-J	CAMP EXCHANGE STOREHOUSE
118	7-J	BARRACKS
119	7-J	REGIMENTAL INFIRMARY
120	7-J	BARRACKS
121	7-J	BATTALION ADMINISTRATION BUILDING
122	7-J	MESS HALL
123	7-K	REGIMENTAL ADMINISTRATION BUILDING
124	7-J	BARRACKS
125	6-J	REGIMENTAL SERVICE CLUB
125A	6-J	REGIMENTAL SERVICE CLUB STOREHOUSE
126	7-J	BATTALION WAREHOUSE
127	8-J	BATTALION ADMINISTRATION BUILDING
128	7-J	BARRACKS
129	7-J	BATTALION WAREHOUSE
130	7-I	BATTALION WAREHOUSE
131	8-I	BATTALION WAREHOUSE
131A	8-I	NIGHT VISION TRAINER BUILDING
131B	8-I	NIGHT VISION TRAINER BUILDING
132	8-I	BATTALION WAREHOUSE
133	9-J	BATTALION WAREHOUSE
134	8-K	BATTALION WAREHOUSE
S-135	7-K	PIER
S-136	6-U	BASEBALL FIELD
S-137	6-I	SOFTBALL FIELD
S-138	6-I	TENNIS COURTS
S-139	6-I	SOFTBALL FIELD
S-140	6-J	BADMINTON COURT
S-141	6-J	VOLLEYBALL COURT
S-142	7-I	HANDBALL COURT
S-143	7-I	FOOTBALL FIELD
S-144	8-I	SOFTBALL FIELD
REGIMENTAL AREA No 2		
200	9-F	BATTALION WAREHOUSE
201	9-L	REGIMENTAL THEATER
202	9-K	BARRACKS
203	9-L	CAMP EXCHANGE
203A	9-L	CAMP EXCHANGE STOREHOUSE
204	9-K	BARRACKS
205	9-L	BARRACKS
206	9-K	MESS HALL
207	9-L	BATTALION WAREHOUSE
208	9-K	BARRACKS
209	9-L	BARRACKS
210	9-K	BATTALION WAREHOUSE
211	9-L	MESS HALL
212	9-K	BARRACKS
213	9-L	BARRACKS
214	8-K	BATTALION ADMINISTRATION BUILDING
215	9-L	STOREHOUSE
216	8-K	BATTALION ADMINISTRATION BUILDING
217	8-L	BARRACKS
218	8-K	BATTALION WAREHOUSE
219	8-L	BATTALION ADMINISTRATION BUILDING
220	8-L	BARRACKS
221	8-L	REGIMENTAL INFIRMARY
222	8-K	BATTALION WAREHOUSE
223	8-M	REGIMENTAL ADMINISTRATION BUILDING
224	8-L	BARRACKS
225	9-L	REGIMENTAL SERVICE CLUB
225A	9-L	REGIMENTAL SERVICE CLUB STOREHOUSE
226	8-L	MESS HALL
227	8-L	BARRACKS
228	8-L	BARRACKS
229	8-K	BATTALION WAREHOUSE
230	8-K	BATTALION WAREHOUSE
231	9-K	BATTALION WAREHOUSE
232	9-K	BATTALION WAREHOUSE
233	9-L	WESTERN UNION & PHOTOGRAPHIC SHOP
234	8-M	BUS TERMINAL
235	9-L	BUS TERMINAL
236	9-J	TRAINING POOL
S-237	8-L	TENNIS COURTS
S-238	9-L	SOFTBALL FIELD
S-239	8-M	BASEBALL FIELD
S-240	8-M	FOOTBALL FIELD

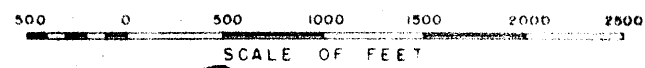


- EXPLANATION**
- BUILDINGS
 - ASPHALT SURFACED ROADS
 - SHELL ROCK SURFACE ROADS
 - RAILROADS

**MAP OF
DIVISION TRAINING AREA**

CAMP LEJEUNE, NEW RIVER, N.C.

SHOWING CONDITIONS ON
30 JUNE 1943



Richard A. Williams
LT. COLONEL (RETIRED)
PUBLIC WORKS OFFICER

FOR LEGEND REFER TO SHEET 5-A

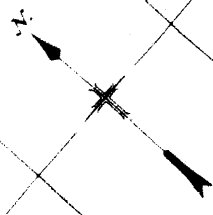
SHEET 6 OF 6

MATCH LINES FOR SHEET 2

N 350,000

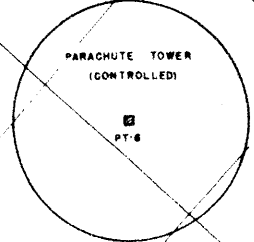
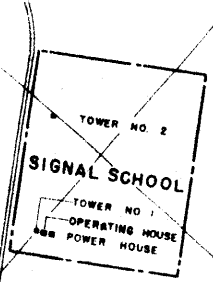
N 148,000

N 346,000



- NOTE
- F INDICATES FOOTBALL FIELD
 - S INDICATES SOFTBALL FIELD
 - T INDICATES TENNIS COURT
 - V INDICATES VOLLEYBALL COURT
 - H INDICATES HANDBALL COURT
 - HC INDICATES HORSESHOE COURT
 - BC INDICATES BADMINTON COURT

MATCH LINES FOR SHEET 4



PARACHUTE TRAINING

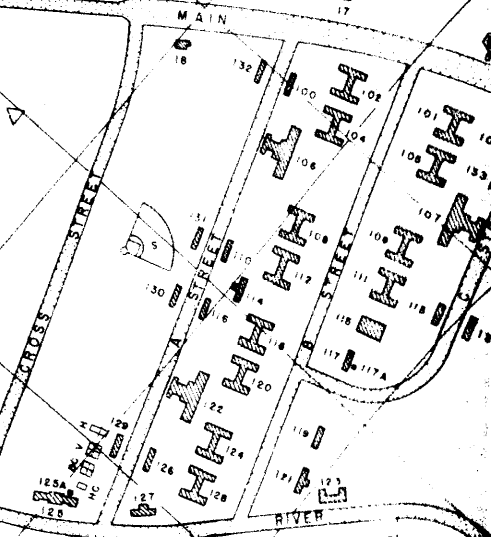
RIVER DRIVE

SEWAGE PUMPING STATION NO. 3

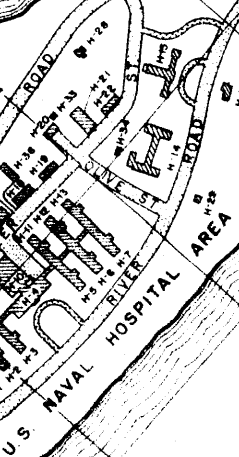
CREEK

BEAVER DAM

E. 2,496,000



WALLACE



N E W R

E. 2,488,000

E. 2,490,000

REF	LOCATION	DEPT	USE	NUMBER	LOCATION	DEPT	USE
REGIMENTAL AREA No. 5					SUPPLY AND INDUSTRIAL AREA		
23	2 R		MESS HALL	1608	14 M		WAREHOUSE
23	2 R		REGIMENTAL ADMINISTRATION BUILDING	1700	15 M		CENTRAL HEATING PLANT
24	19 P		BARRACKS	1701	14 N		OIL STORAGE TANK
24	4 D		REGIMENTAL SERVICE CLUB	1702	13 N		SCALE HOUSE
24	13 D		REGIMENTAL SERVICE CLUB STOREHOUSE				
25	12 S		BATTALION WAREHOUSE				
26	12 S		BATTALION ADMINISTRATION BUILDING				
27	12 S		BARRACKS				
28	12 S		BATTALION WAREHOUSE				
29	12 C		BATTALION WAREHOUSE				
30	12 D		BATTALION WAREHOUSE				
31	13 D		BATTALION WAREHOUSE				
32	13 A		BATTALION WAREHOUSE				
33	12 S		BATTALION WAREHOUSE				
34	2 S		BATTALION WAREHOUSE				
U S NAVAL HOSPITAL AREA					PARACHUTE TRAINING AREA		
35	X		SICK OFFICER'S QUARTERS	PT-1	15-1		PARACHUTE BUILDING
36	3 K		MEDICAL WARDS	PT-2	15-1		PARACHUTE TRAINING BUILDING
37	4 K		MEDICAL WARDS	PT-3	15-1		HEATING PLANT
38	4 K		ADMINISTRATION BUILDING	PT-4	15-1		PARACHUTE TOWER (CAPTIVE)
39	4 K		MEDICAL WARDS	PT-5	14-1		PARACHUTE TOWER (FREE)
40	4 K		UROLOGICAL, DERMATOLOGY AND SYPHILIS WARDS	PT-6	12 M		PARACHUTE TOWER (CONTROLLED)
41	3 J		MEDICAL WARD & SICK OFFICER'S QUARTERS				
42	3 J		MEDICAL WARDS				
43	4 J		MESS HALL AND RECREATION BUILDING				
44	4 J		MEDICAL WARDS				
45	4 J		MEDICAL WARDS				
46	4 J		NEUROPSYCHIATRIC & ISOLATION WARDS				
47	5 K		NAVAL NURSES HOME				
48	5 J		FAMILY HOSPITAL				
49	5 K		CIVILIAN NURSES HOME				
50	4 J		MEDICAL WAREHOUSE				
51	4 J		GARAGE				
52	4 J		SHOPS				
53	5 J		POWER PLANT				
54	5 J		LAUNDRY				
55	5 J		WAREHOUSE				
56	4 J		CORPSMENS BARRACKS				
57	4 J		CORPSMENS BARRACKS				
58	3 J		MEDICAL OFFICER'S QUARTERS				
59	3 J		MEDICAL OFFICER'S QUARTERS				
60	3 J		MEDICAL OFFICER'S QUARTERS				
61	3 J		WARRANT OFFICER'S QUARTERS				
62	5 K		SEWAGE PUMPING STATION				
63	6 J		MEN SERVANTS' QUARTERS				
64	6 J		WOMEN SERVANTS' QUARTERS				
65	6 J		BACHELOR OFFICER'S QUARTERS				
66	5 J		TRANSFORMER HOUSE "B"				
67	5 J		TRANSFORMER HOUSE "E"				
68	3 J		TRANSFORMER HOUSE "D"				
69	4 J		GARAGE				
70	4 J		WELL				
71	6 F		TRANSFORMER HOUSE				
SUPPLY AND INDUSTRIAL AREA							
72	16 K		300,000 GAL ELEVATED WATER TANK				
73	16 L		GAS AND OIL FILLING STATION				
74	16 L		GROUND WATER STAGE RECORDER				
75	16 L		CONTROL BOX				
76	16 L		OFFICE BUILDING				
77	17 L		CAFETERIA				
78	16 K		FILLING STATION				
79	15 L		WAREHOUSE				
80	16 L		EQUIPMENT STORAGE				
81	16 L		EQUIPMENT STORAGE				
82	16 L		EQUIPMENT STORAGE				
83	16 L		EQUIPMENT STORAGE				
84	16 M		EQUIPMENT STORAGE				
85	16 M		EQUIPMENT STORAGE				
86	15 L		WAREHOUSE				
87	17 M		BARRACKS				
88	16 M		BARRACKS				
89	15 L		COMMISSARY				
90	15 L		WAREHOUSE				
91	16 L		SHOPS				
92	16 M		EQUIPMENT STORAGE				
93	15 M		EQUIPMENT STORAGE				
94	16 M		EQUIPMENT STORAGE				
95	16 M		EQUIPMENT STORAGE				
96	16 M		POST EXCHANGE				
97	16 M		ADMINISTRATION BUILDING				
98	16 M		MESS HALL				
99	15 L		COLD STORAGE BUILDING				
100	15 L		WAREHOUSE				
101	15 M		EQUIPMENT STORAGE				
102	15 M		EQUIPMENT STORAGE				
103	15 M		LUMBER STORAGE SHED				
104	15 M		LUMBER STORAGE SHED				
105	15 M		LUMBER STORAGE SHED				
106	15 M		LUMBER STORAGE SHED				
107	15 M		BALLOON BUILDING				
108	15 M		EQUIPMENT STORAGE				
109	15 M		EQUIPMENT STORAGE				
110	15 M		EQUIPMENT STORAGE				
111	15 M		EQUIPMENT STORAGE				
112	16 M		BARRACKS				
113	16 M		BARRACKS				
114	15 M		LUMBER DRYING KILN				
115	14 L		FIRE HOUSE				
116	14 M		BAKERY				
117	14 M		WAREHOUSE				
118	15 M		POST EXCHANGE WAREHOUSE				
119	15 M		RECLAMATION BUILDING				
120	15 M		EQUIPMENT STORAGE				
121	15 M		EQUIPMENT STORAGE				
122	15 M		EQUIPMENT STORAGE				
123	15 N		EQUIPMENT STORAGE				
124	14 M		LAUNDRY				
125	14 M		WAREHOUSE				
126	14 M		POST GARAGE AND REPAIR SHOP				
127	15 N		EQUIPMENT STORAGE				
128	14 N		EQUIPMENT STORAGE				
129	15 N		EQUIPMENT STORAGE				
130	15 N		EQUIPMENT STORAGE				
131	15 N		PROPANE GAS BUILDING				
132	14 N		POST GARAGE AND REPAIR SHOP				
133	14 N		EQUIPMENT STORAGE				
134	14 N		EQUIPMENT STORAGE				
135	14 N		EQUIPMENT STORAGE				

LEGEND SHEET FOR

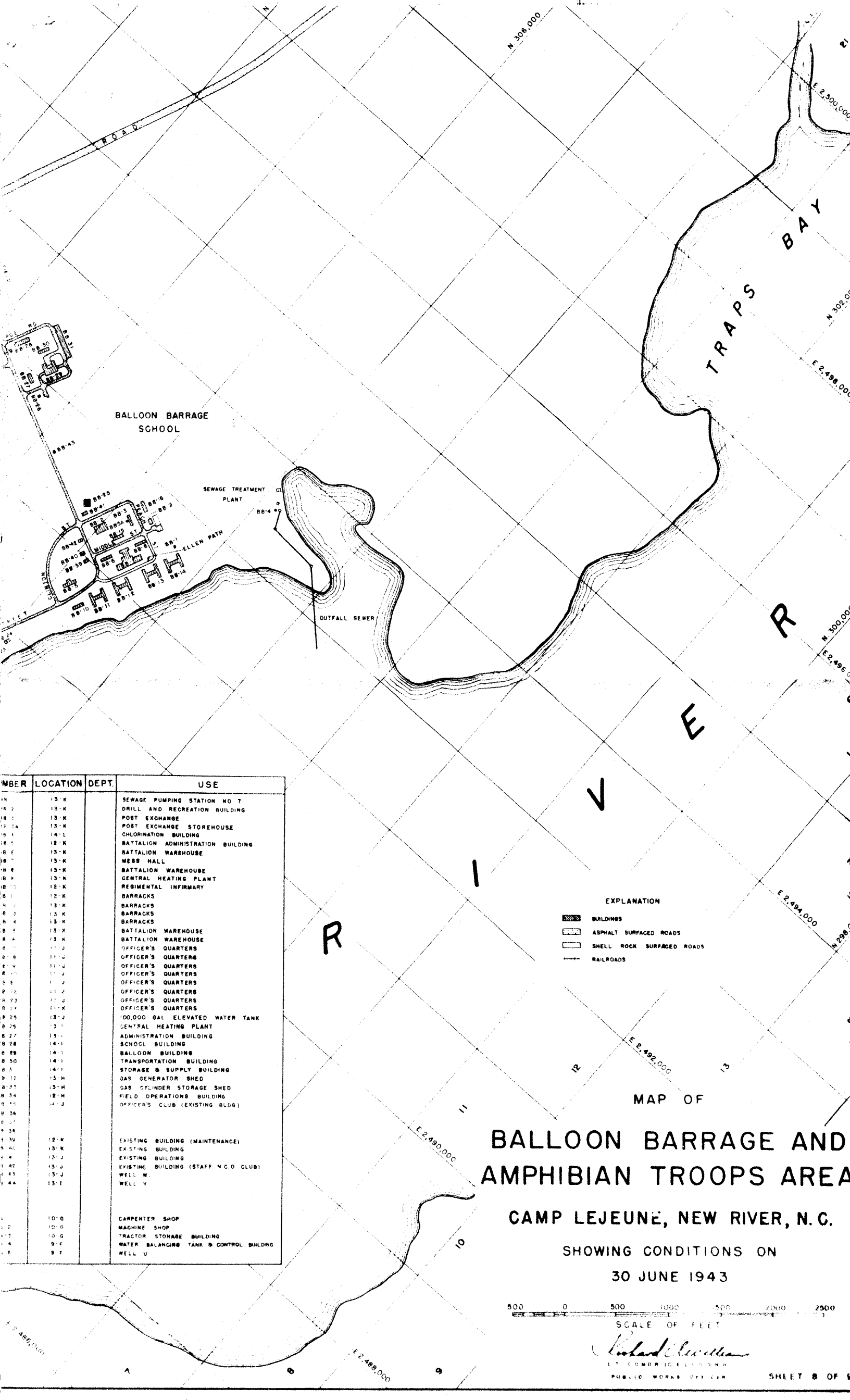
DIVISION TRAINING AREA

CAMP LEJEUNE, NEW RIVER, N. C.

SHOWING CONDITIONS ON

30 JUNE 1943

Richard A. Williams
 LT COMDR (C.E.C.) U.S.N.R.
 PUBLIC WORKS OFFICER



NUMBER	LOCATION	DEPT.	USE
13	13-K		SEWAGE PUMPING STATION NO 7
13-2	13-K		DRILL AND RECREATION BUILDING
13-3	13-K		POST EXCHANGE
13-3A	13-K		POST EXCHANGE STOREHOUSE
13-4	14-K		CHLORINATION BUILDING
13-5	12-K		BATTALION ADMINISTRATION BUILDING
13-6	13-K		BATTALION WAREHOUSE
13-7	13-K		MESS HALL
13-8	13-K		BATTALION WAREHOUSE
13-9	13-K		CENTRAL HEATING PLANT
13-10	12-K		RESIDENTIAL INFIRMARY
13-11	12-K		BARRACKS
13-12	13-K		BARRACKS
13-13	13-K		BARRACKS
13-14	13-K		BARRACKS
13-15	13-K		BATTALION WAREHOUSE
13-16	13-K		BATTALION WAREHOUSE
13-17	11-J		OFFICER'S QUARTERS
13-18	11-J		OFFICER'S QUARTERS
13-19	11-J		OFFICER'S QUARTERS
13-20	11-J		OFFICER'S QUARTERS
13-21	11-J		OFFICER'S QUARTERS
13-22	11-J		OFFICER'S QUARTERS
13-23	11-J		OFFICER'S QUARTERS
13-24	11-K		OFFICER'S QUARTERS
13-25	13-V		100,000 GAL. ELEVATED WATER TANK
13-26	13-I		CENTRAL HEATING PLANT
13-27	13-I		ADMINISTRATION BUILDING
13-28	14-I		SCHOOL BUILDING
13-29	14-I		BALLOON BUILDING
13-30	14-I		TRANSPORTATION BUILDING
13-31	14-I		STORAGE & SUPPLY BUILDING
13-32	13-H		GAS GENERATOR SHED
13-33	13-H		GAS CYLINDER STORAGE SHED
13-34	12-H		FIELD OPERATIONS BUILDING
13-35	14-J		OFFICER'S CLUB (EXISTING BLDG.)
13-36			
13-37			
13-38			
13-39	12-K		EXISTING BUILDING (MAINTENANCE)
13-40	13-K		EXISTING BUILDING
13-41	13-J		EXISTING BUILDING
13-42	13-J		EXISTING BUILDING (STAFF N.C.O. CLUB)
13-43	13-J		WELL W
13-44	13-I		WELL Y
13-45			
13-46	10-G		CARPENTER SHOP
13-47	10-F		MACHINE SHOP
13-48	10-G		TRACTOR STORAGE BUILDING
13-49	9-F		WATER BALANCING TANK & CONTROL BUILDING
13-50	9-F		WELL U

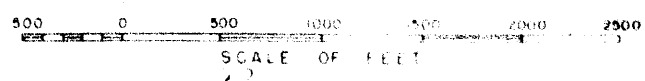
EXPLANATION

- BUILDINGS
- ASPHALT SURFACED ROADS
- SHELL ROCK SURFACED ROADS
- RAILROADS

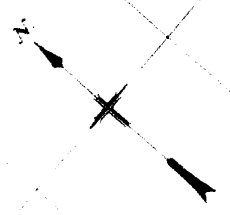
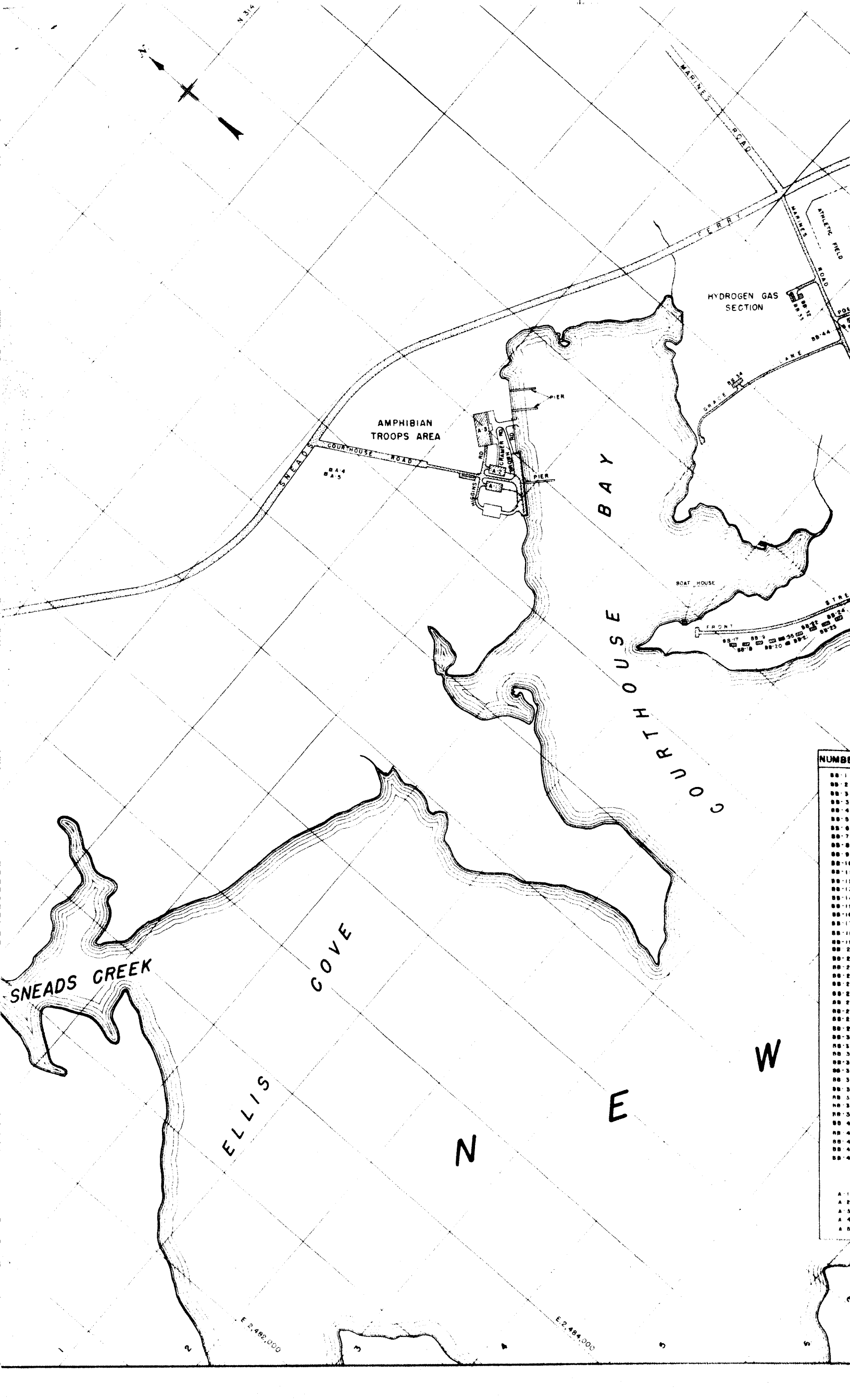
MAP OF
**BALLOON BARRAGE AND
 AMPHIBIAN TROOPS AREA**

CAMP LEJEUNE, NEW RIVER, N. C.

SHOWING CONDITIONS ON
30 JUNE 1943



Richard C. Williams
 LT. COLONEL, U.S. ARMY
 PUBLIC WORKS OFFICER



HYDROGEN GAS SECTION

AMPHIBIAN TROOPS AREA

BAY

COURTHOUSE

SNEADS CREEK

ELLIS COVE

N E W

NUMBER

- BB-1
- BB-2
- BB-3
- BB-4
- BB-5
- BB-6
- BB-7
- BB-8
- BB-9
- BB-10
- BB-11
- BB-12
- BB-13
- BB-14
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- BB-47
- BB-48
- BB-49
- BB-50

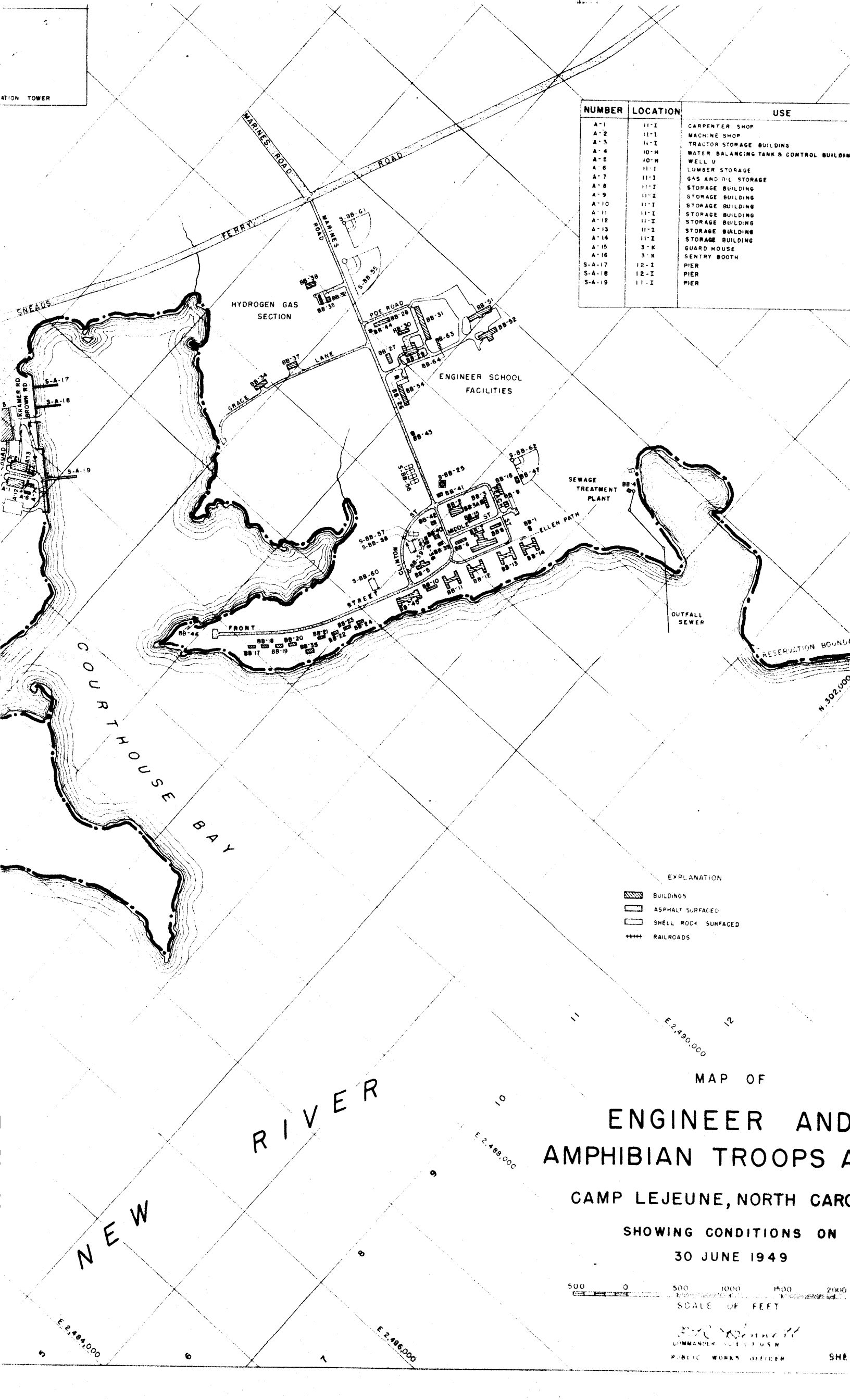
- A-1
- A-2
- A-3
- A-4
- A-5

E 2,492,000

E 2,484,000

ATION TOWER

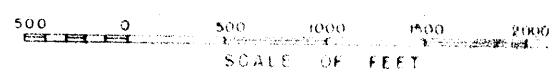
NUMBER	LOCATION	USE
A-1	11-I	CARPENTER SHOP
A-2	11-I	MACHINE SHOP
A-3	11-I	TRACTOR STORAGE BUILDING
A-4	10-M	WATER BALANCING TANK & CONTROL BUILDING
A-5	10-M	WELL U
A-6	11-I	LUMBER STORAGE
A-7	11-I	GAS AND OIL STORAGE
A-8	11-I	STORAGE BUILDING
A-9	11-I	STORAGE BUILDING
A-10	11-I	STORAGE BUILDING
A-11	11-I	STORAGE BUILDING
A-12	11-I	STORAGE BUILDING
A-13	11-I	STORAGE BUILDING
A-14	11-I	STORAGE BUILDING
A-15	3-K	GUARD HOUSE
A-16	3-K	SENTRY BOOTH
S-A-17	12-I	PIER
S-A-18	12-I	PIER
S-A-19	11-I	PIER



EXPLANATION

- BUILDINGS
- ASPHALT SURFACED
- SHELL ROCK SURFACED
- RAILROADS

MAP OF
**ENGINEER AND
 AMPHIBIAN TROOPS A**
CAMP LEJEUNE, NORTH CARO
 SHOWING CONDITIONS ON
30 JUNE 1949

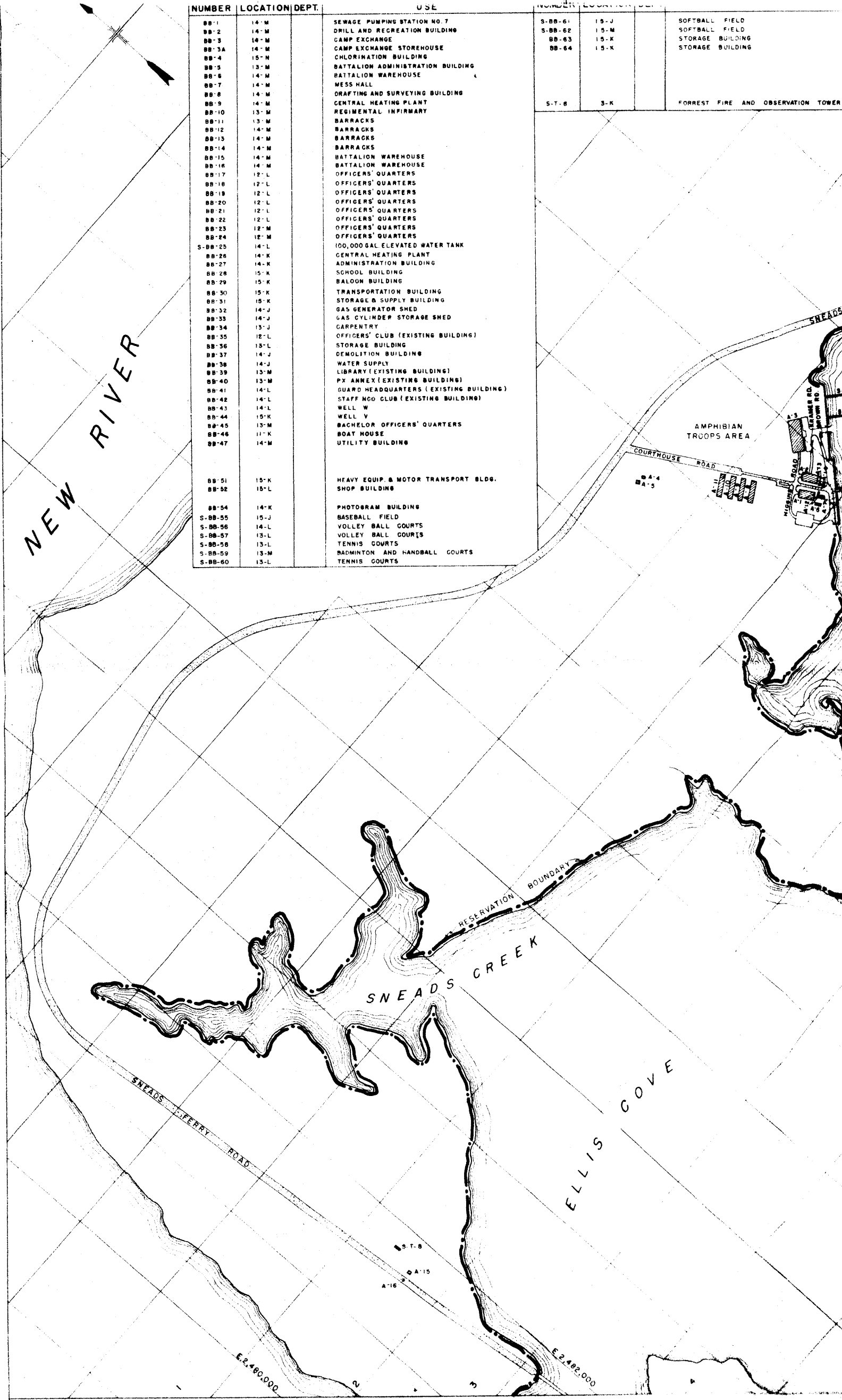


[Signature]
 COMMANDER, U.S. ARMY
 PUBLIC WORKS OFFICER

SHE

NUMBER	LOCATION	DEPT.	USE	NUMBER	LOCATION	DEPT.	USE
BB-1	14-M		SEWAGE PUMPING STATION NO. 7	S-BB-61	15-J		SOFTBALL FIELD
BB-2	14-M		DRILL AND RECREATION BUILDING	S-BB-62	15-M		SOFTBALL FIELD
BB-3	14-M		CAMP EXCHANGE	BB-63	15-K		STORAGE BUILDING
BB-3A	14-M		CAMP EXCHANGE STOREHOUSE	BB-64	15-K		STORAGE BUILDING
BB-4	15-N		CHLORINATION BUILDING				
BB-5	13-M		BATTALION ADMINISTRATION BUILDING				
BB-6	14-M		BATTALION WAREHOUSE				
BB-7	14-M		MESS HALL				
BB-8	14-M		DRAFTING AND SURVEYING BUILDING				
BB-9	14-M		CENTRAL HEATING PLANT	S-T-8	3-K		FORREST FIRE AND OBSERVATION TOWER
BB-10	13-M		REGIMENTAL INFIRMARY				
BB-11	13-M		BARRACKS				
BB-12	14-M		BARRACKS				
BB-13	14-M		BARRACKS				
BB-14	14-M		BARRACKS				
BB-15	14-M		BATTALION WAREHOUSE				
BB-16	14-M		BATTALION WAREHOUSE				
BB-17	12-L		OFFICERS' QUARTERS				
BB-18	12-L		OFFICERS' QUARTERS				
BB-19	12-L		OFFICERS' QUARTERS				
BB-20	12-L		OFFICERS' QUARTERS				
BB-21	12-L		OFFICERS' QUARTERS				
BB-22	12-L		OFFICERS' QUARTERS				
BB-23	12-M		OFFICERS' QUARTERS				
BB-24	12-M		OFFICERS' QUARTERS				
S-BB-25	14-L		100,000 GAL. ELEVATED WATER TANK				
BB-26	14-K		CENTRAL HEATING PLANT				
BB-27	14-K		ADMINISTRATION BUILDING				
BB-28	15-K		SCHOOL BUILDING				
BB-29	15-K		BALLOON BUILDING				
BB-30	15-K		TRANSPORTATION BUILDING				
BB-31	15-K		STORAGE & SUPPLY BUILDING				
BB-32	14-J		GAS GENERATOR SHED				
BB-33	14-J		GAS CYLINDER STORAGE SHED				
BB-34	13-J		CARPENTRY				
BB-35	12-L		OFFICERS' CLUB (EXISTING BUILDING)				
BB-36	15-L		STORAGE BUILDING				
BB-37	14-J		DEMOLITION BUILDING				
BB-38	14-J		WATER SUPPLY				
BB-39	13-M		LIBRARY (EXISTING BUILDING)				
BB-40	13-M		PX ANNEX (EXISTING BUILDING)				
BB-41	14-L		GUARD HEADQUARTERS (EXISTING BUILDING)				
BB-42	14-L		STAFF HQ CLUB (EXISTING BUILDING)				
BB-43	14-L		WELL W				
BB-44	15-K		WELL V				
BB-45	13-M		BACHELOR OFFICERS' QUARTERS				
BB-46	11-K		BOAT HOUSE				
BB-47	14-M		UTILITY BUILDING				
BB-51	15-K		HEAVY EQUIP. & MOTOR TRANSPORT BLDG.				
BB-52	15-L		SHOP BUILDING				
BB-54	14-K		PHOTOGRAM BUILDING				
S-BB-55	15-J		BASEBALL FIELD				
S-BB-56	14-L		VOLLEY BALL COURTS				
S-BB-57	13-L		VOLLEY BALL COURTS				
S-BB-58	13-L		TENNIS COURTS				
S-BB-59	13-M		BADMINTON AND HANDBALL COURTS				
S-BB-60	13-L		TENNIS COURTS				

NEW RIVER



AMPHIBIAN TROOPS AREA

COURT HOUSE ROAD

SNEADS CREEK

ELLIS COVE

SNEADS FERRY ROAD

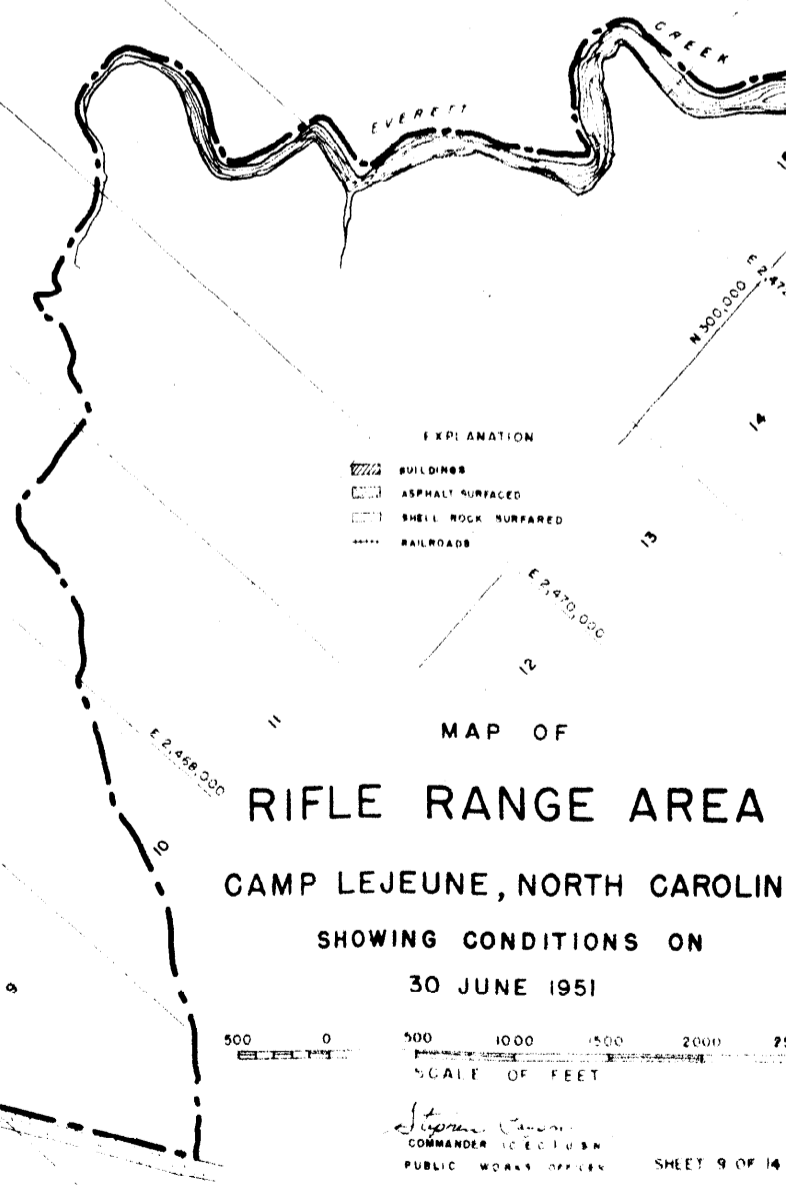
S-T-8
A-15
A-16

E. 2,490,000

E. 2,482,000

NUMBER	LOCATION	DEPT.	USE	NUMBER	LOCATION	DEPT.	USE
RR-1	9-G		BARRACKS	RR-200	11-I		CAMP EXCHANGE
RR-2	9-G		BARRACKS	RR-201	11-I		BARRACKS (STORAGE)
RR-3	9-G		MESS HALL	RR-202	11-I		BARRACKS
RR-4	9-H		BARRACKS	RR-203	11-I		BARRACKS
RR-5	9-H		BARRACKS	RR-204	11-I		BARRACKS
RR-6	9-H		BATTALION WAREHOUSE	RR-205	11-I		ADMINISTRATION BUILDING
RR-7	9-G		BATTALION WAREHOUSE	RR-206	11-I		BARRACKS (STORAGE)
RR-8	9-H		THEATER	RR-207	11-I		BARRACKS
RR-9	9-G		BACHELOR OFFICERS' QUARTERS	RR-208	11-I		BARRACKS
RR-10	9-G		CAMP EXCHANGE	RR-209	11-I		BARRACKS
RR-10A	9-G		CAMP EXCHANGE STOREHOUSE	RR-210	11-H		BARRACKS (STORAGE)
RR-11	9-G		ARMORY	RR-211	11-I		WASH ROOM
RR-12	9-H		INFIRMARY	RR-212	11-I		WASH ROOM
RR-13	9-G		BATTALION WAREHOUSE	RR-213	11-I		WASH ROOM
RR-14	9-G		BATTALION WAREHOUSE	RR-214	11-I		MESS HALL
RR-15	9-E		CENTRAL HEATING PLANT	RR-215	11-I		WASH ROOM
RR-16	9-G		TARGET HOUSE	RR-216	11-I		WASH ROOM
RR-17	9-G		RANGE HOUSE	RR-217	11-H		WASH ROOM
RR-18	9-F		MAGAZINE	RR-218	12-I		BARRACKS
RR-19	9-F		TARGET HOUSE	RR-219	12-I		BARRACKS
RR-19A	9-F		FIRING LINE SHED	RR-220	12-I		BARRACKS
RR-20	10-G		RANGE HOUSE	RR-221	12-I		BARRACKS
RR-21	10-G		MAGAZINE	RR-222	12-I		CENTRAL HEATING PLANT
RR-22	11-G		RANGE HOUSE	RR-223	12-I		BARRACKS (STORAGE)
RR-23	11-G		MAGAZINE	RR-224	12-I		SICK BAY AND RECREATION BUILDING
RR-24	11-G		RANGE HOUSE	RR-225	12-I		BARRACKS
RR-25	11-G		MAGAZINE	RR-227	11-I		PUMP HOUSE AND WELL
RR-26	12-F		TOILET	RR-228	11-H		GUN SHED
RR-27	11-F		TOILET				
RR-28	9-F		TOILET				
RR-29	10-E		TOILET				
RR-30	10-E		TARGET HOUSE				
RR-31	10-E		TOILET				
RR-32	10-E		TOILET				
RR-33	10-E		TARGET HOUSE				
RR-34	11-E		TOILET				
RR-35	11-E		TOILET				
RR-36	11-E		TARGET HOUSE				
RR-37	11-E		TOILET				
RR-38	12-G		CHLORINATION BUILDING				
RR-39	9-I		OFFICERS' QUARTERS				
RR-40	9-H		OFFICERS' QUARTERS				
RR-41	9-H		OFFICERS' QUARTERS				
RR-42	9-H		OFFICERS' QUARTERS				
RR-43	9-H		OFFICERS' QUARTERS				
RR-44	9-G		100,000 GAL ELEVATED WATER TANK				
RR-45	9-J		PUMP HOUSE AND WELL 5				
RR-46	9-J		PUMP HOUSE AND WELL 7				
RR-47	9-G		PUMP HOUSE AND WELL 5-1				
RR-48	9-H		SCHOOL BUILDING				
RR-49	9-H		SCHOOL BUILDING				
RR-50	9-G		SCHOOL BUILDING				
RR-51	9-S		SCHOOL BUILDING				
RR-52	11-H		SEWAGE PUMPING STATION NO 11				
RR-53	8-G		INDOOR PISTOL RANGE				
RR-54	9-S		MOCKUP				
RR-56	10-H		STORAGE BUILDING				
RR-57	10-H		VOLLEY BALL COURTS				
RR-58	10-H		TENNIS COURTS				
RR-59	10-H		BADMINTON AND HANDBALL COURTS				
RR-60	11-G		PIER				
RR-61	7-G		BOAT HOUSE				
RR-62	7-F		STORAGE BUILDING				
RR-63	8-H		GAS CHAMBER				
RR-64	9-F		LECTURE SHED				
RR-65	11-G		LECTURE SHED				
RR-66	11-G		LECTURE SHED				
RR-67	12-G		SLUDGE DRYING BEDS				
RR-68	12-G		IMHOFF TANK				
RR-69	12-G		IMHOFF TANK				

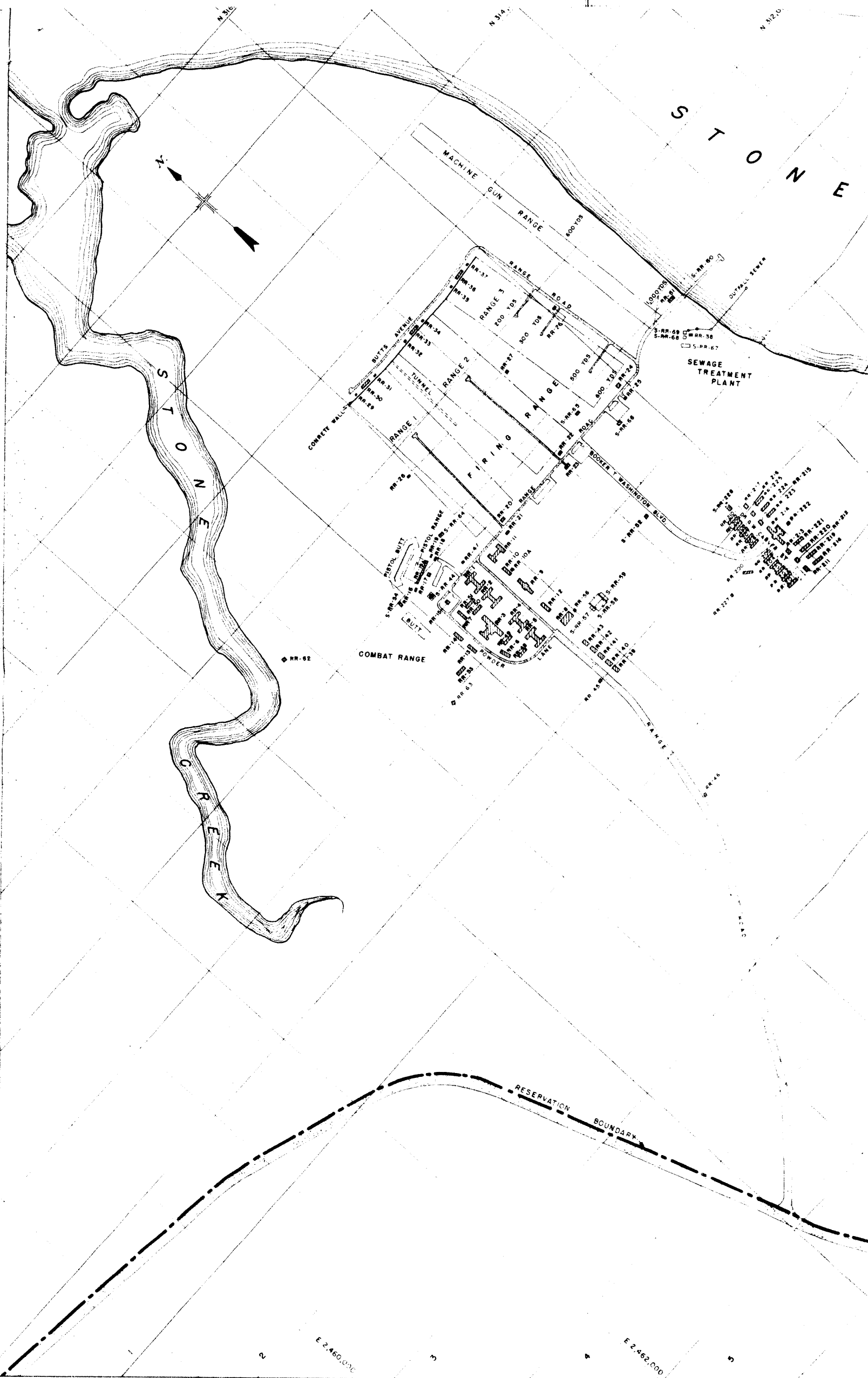
BAY



Y INFORMATION
RESTRICTED

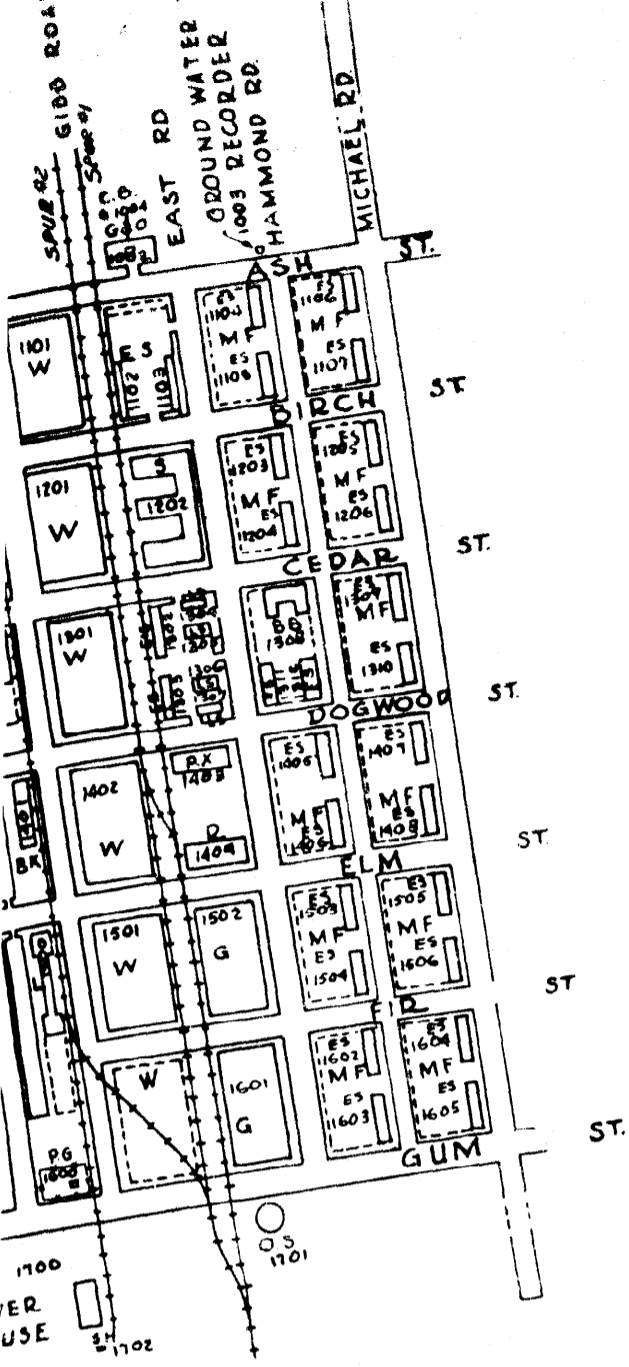
GPO 83-22609

CAMP LEJEUNE, N. C.



SECURITY INFO
RESTRICTED

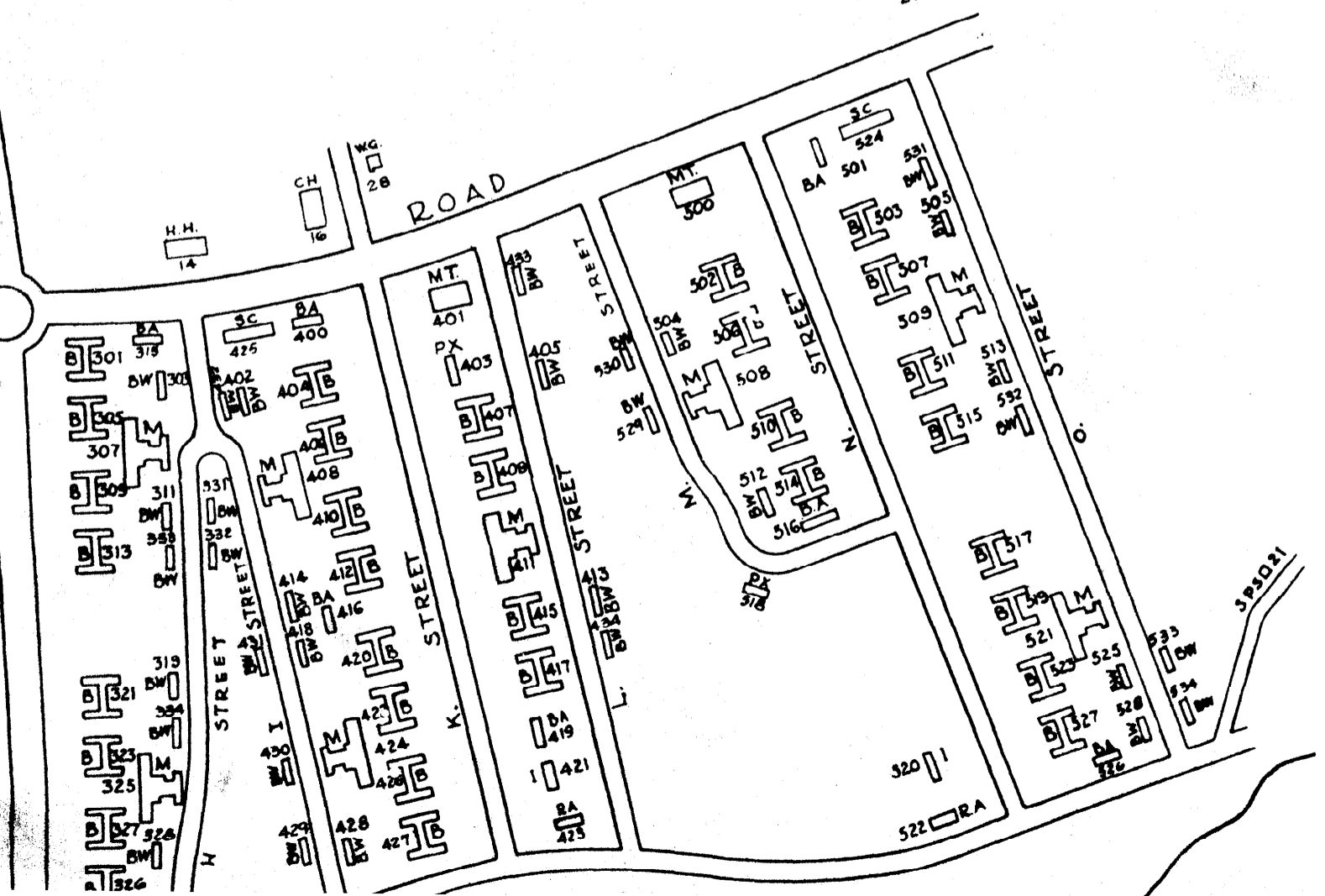
Legume



LEGEND
FOR SUPPLY & INDUSTRIAL AREA

- BK BAKERY
- C COMMISSARY
- CS COLD STORAGE
- ES EQUIPMENT STORAGE
- FH FIREHOUSE
- FS FILLING STATION
- G GARAGES
- GEO GAS & OIL STATION
- L LAUNDRY
- MF MOTOR STORAGE
- MS MATERIAL STORAGE
- S SHOPS
- W WAREHOUSES
- PO PROPANE GAS
- OS OIL STORAGE
- R RECLAMATION BUILDING
- [Dashed Box] FUTURE CONSTRUCTION
- BB BALLOON BUILDING
- LS LUMBER STORAGE SHEDS
- CB CONTROL BOX
- SH SCALES HOUSE

ELEVATED WATER TANK
29

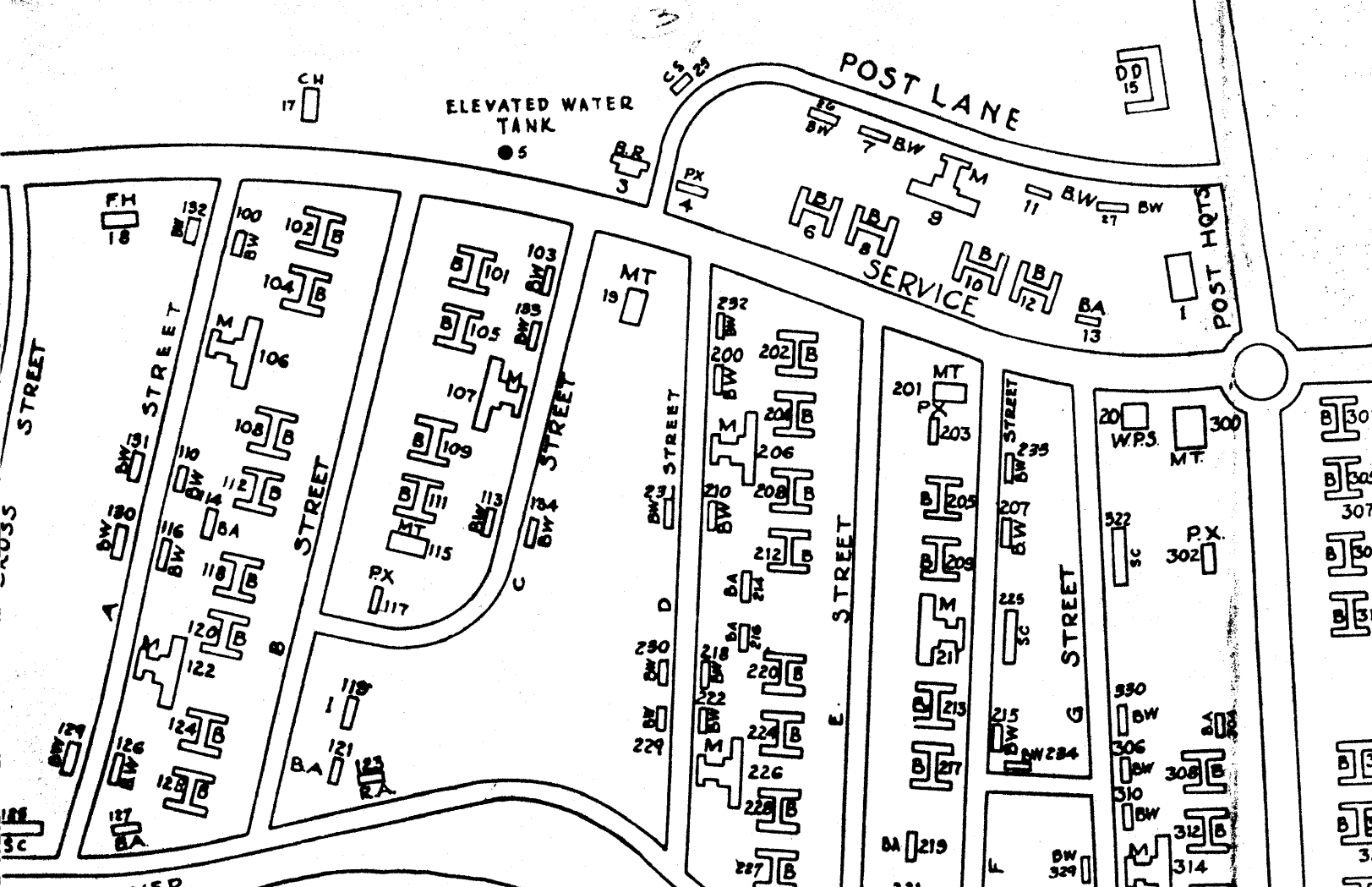
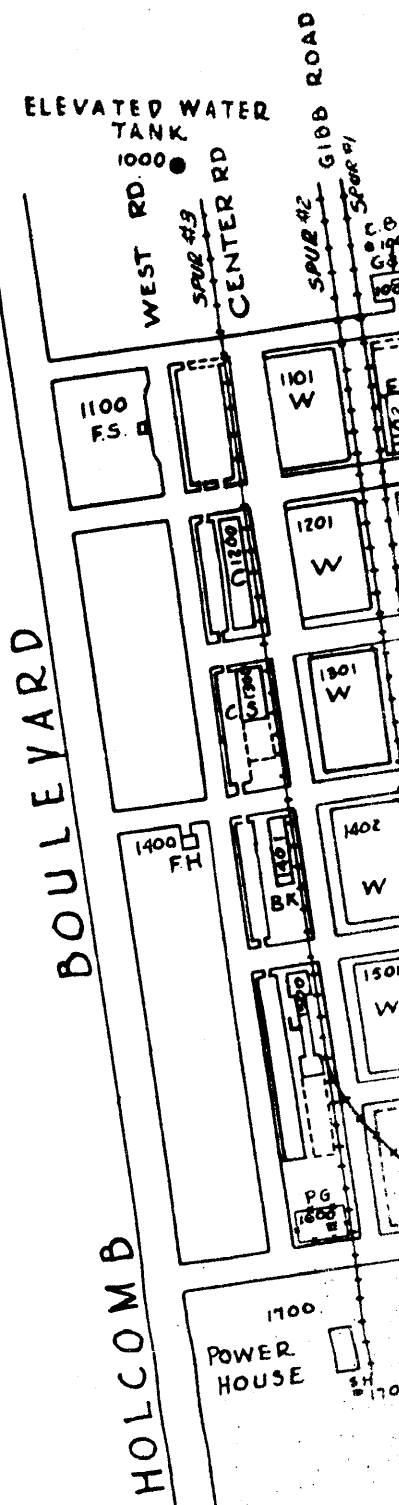


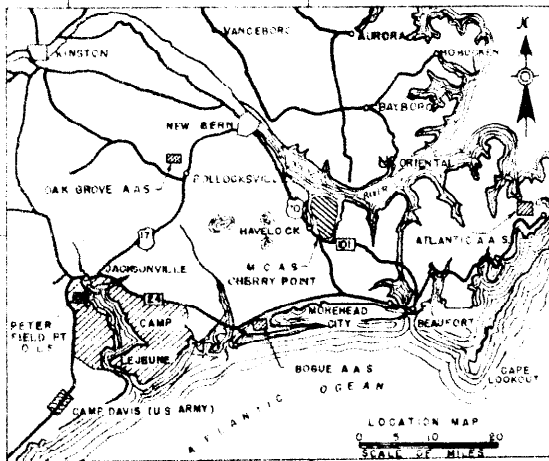
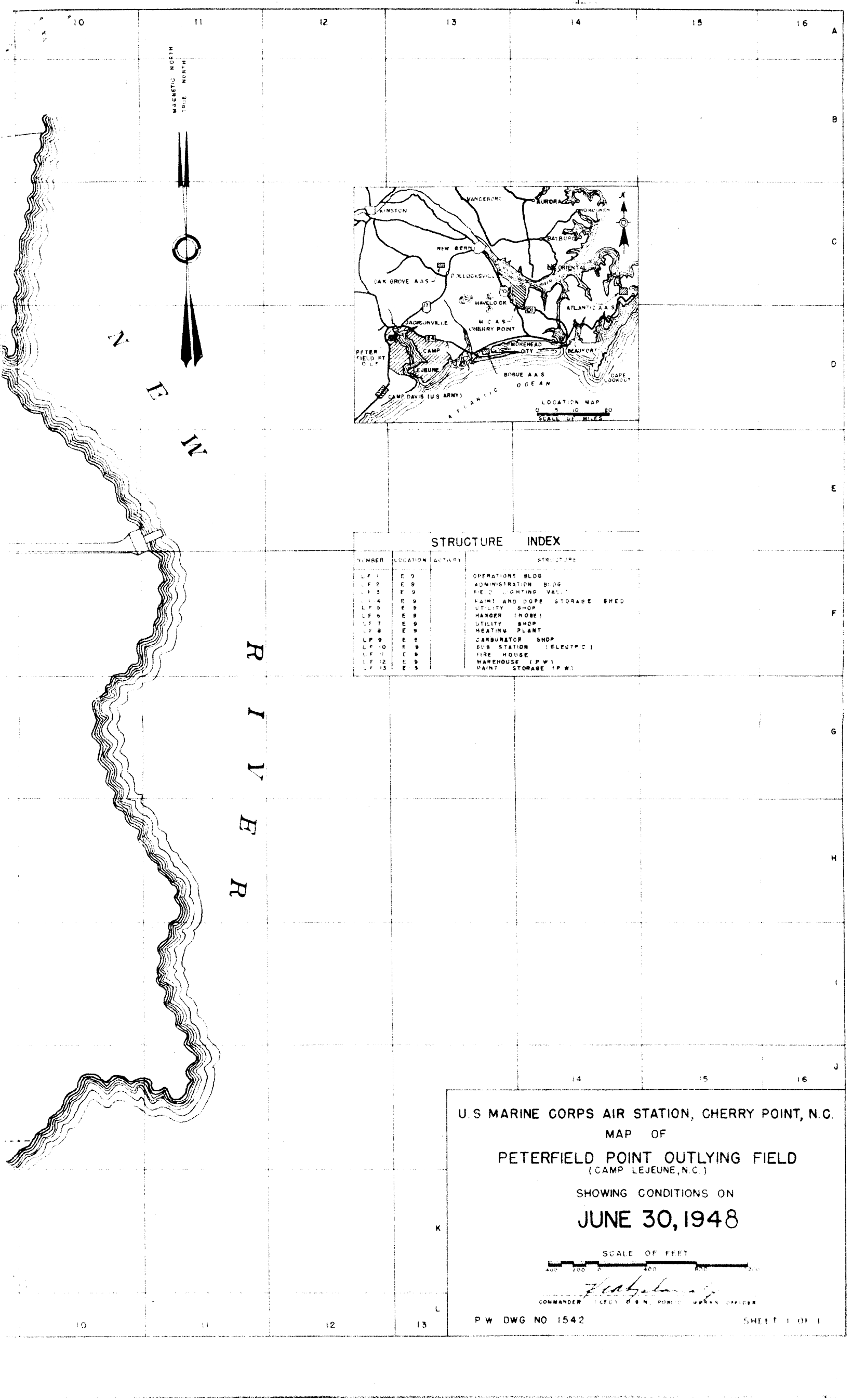
LEGEND

FOR REGIMENTAL AREA

- BH BOAT HOUSE
- B BARRACKS
- BA BATTALION ADMINISTRATION
- BW BATTALION WAREHOUSE
- CH CHURCH
- FH FIREHOUSE
- HH HOSTESS HOUSE
- I INFIRMARY
- M MESS HALL
- MT MOVIE THEATER
- PH POWER HOUSE (SUPPLY AND INDUSTRIAL AREA)
- PX POST EXCHANGE
- RA REGIMENTAL ADMINISTRATION
- SC SERVICE CLUB
- STP SEWAGE TREATMENT PLANT
- SPS SEWAGE PUMPING STATION
- WPS WATER PUMPING STATION
- BR BRIG
- IN INCINERATOR
- RT RADIO TOWER
- DD DENTAL DISPENSARY
- CS COBBLER SHOP
- WG WALLER GUNNERY
- T TOILET

ELEVATED WATER TANK 1000





STRUCTURE INDEX

NUMBER	LOCATION	ACTIVITY	STRUCTURE
LF 1	E 9		OPERATIONS BLDG
LF 2	E 9		ADMINISTRATION BLDG
LF 3	E 9		FIELD LIGHTING VALL
LF 4	E 9		PAINT AND OILS STORAGE SHED
LF 5	E 9		UTILITY SHOP
LF 6	E 9		HANGER (HOSE)
LF 7	E 9		UTILITY SHOP
LF 8	E 9		HEATING PLANT
LF 9	E 9		CARBURETOR SHOP
LF 10	E 9		SUB STATION (ELECTRIC)
LF 11	E 9		FIRE HOUSE
LF 12	E 9		WAREHOUSE (P.W.)
LF 13	E 9		PAINT STORAGE (P.W.)

U. S. MARINE CORPS AIR STATION, CHERRY POINT, N.C.

MAP OF

PETERFIELD POINT OUTLYING FIELD
(CAMP LEJEUNE, N.C.)

SHOWING CONDITIONS ON

JUNE 30, 1948

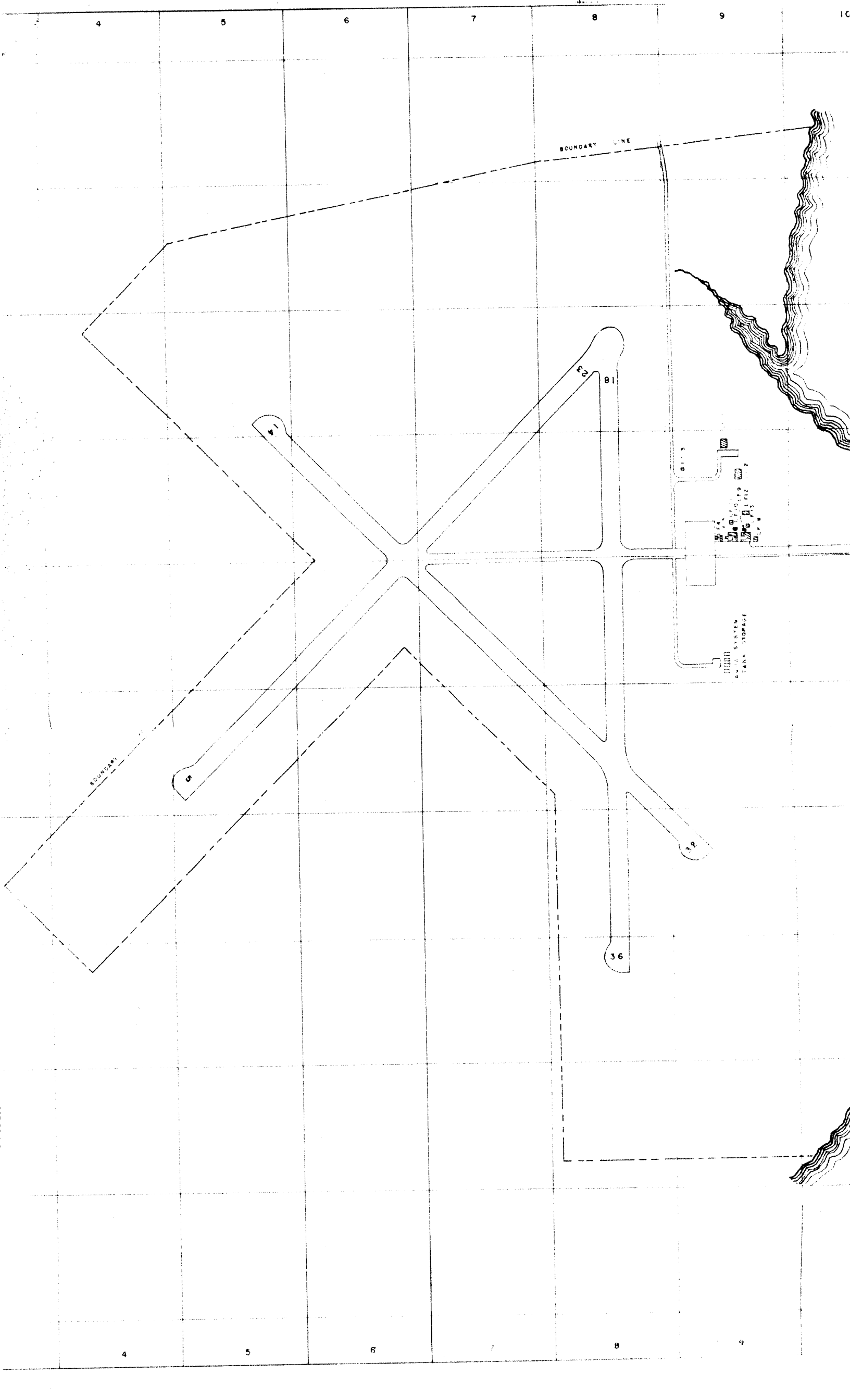
SCALE OF FEET



[Signature]
COMMANDER (CFCY) U. S. N. PUBLIC WORKS OFFICER

P W DWG NO 1542

SHEET 1 OF 1



Briefing
Camp Sejeune

Jan 27, 1982

Safety Officer - R. G. ~~Andrews~~ ^{Andrews}
Base Maintenance Co. - Col. Mount
Natural Resources - Alan Skarp.
Chief of Staff - Col Friedell
Public Affairs - May Swartzberg.

Start here ~ March 8 - (entire period will be March 8-26)

GOCO's - govt contractor -

4-8 Oct - post briefing - following draft Report.

Landfill by rifle range - a high priority site -

Contaminants - treatment of soil under houses - press has targeted action on base as an env. health problem. - should not be tied in with NACOP program which is disposed.

* Note - check out tank Farm near N. Resources for leak

1/2 size P996 - Maps for showing oil abatement facilities on base. Ask for these from public works.

SANTIV

Bob Beem - Soil Survey for Cherry Pt. -

Tim
Stamps

Ortho photo map - State Geological Survey - Raleigh -

Soil Boring logs - possibly at SANTIV - ^{Public Works} Mr. House.
Public Works - General development map - does not keep old aerials -

Soil Survey Anslow Co in 1920's -

~~Cal~~ ^{H.G.} Bozarth - 100 Marion Pl. 347-2044

Country Club -

Bud Miller - Swansboro.

Lou Owens - Swanton

Ralph Dudley - Kinston

Paul Adams -

~~A~~

Bldg - PT37 - Rad Report - (Wallace will get this)

Burn dump - near STP.

C. Geizer - beside STP - ~~some~~ landfill that is not known.

Drainage map of the air station. - Mr. Rouse has this.

Send Danny Sharp a list materials found at SANDIIV

If can find SANDIIV # on New River + Oak Grove can find these drawings
otherwise the Oak Grove.

MAASTA New River is a separate community
until 1974 independent -

Need to

Acosta

Col. Col. Washell - 455-6306

Drainage map - see Danny Sharp.

~~Other~~

DICC - Office in Charge of Construction.

MAXIE Beyant - SANDIIV - Acquisitions - Archeological
Survey for C. Sejeune. 1981

Cherry Point Briefing

1/27/82

Wednesday arrived at Cherry Point (CP) and met with the natural resources group. Personnel included engineers, biologists, foresters. Becky Herbig is the contact for biology and Don Travis is the environmental engineer. John Meese is forester. There are several other forester types on the

Town House
Lodge

~~BRIT~~
Cherry Point

Aerial photos - facilities; Maintenance Engineering.

Photo - WAB can take + turn over film to Station personnel to develop + clear.

A+E study on landfill - need this -

NFAC - Bernard

Becky Herby has assembled some documents of use to project.

1. Histogram of aerials taken + B+I ~ 118,000 or 119,000 dtd

^{dtd 1975, Feb}
Colours - purchased from Sals Inc. B+I's - dtd 1972 - some aerials

B+I, dtd 1974

SouthviewBriefing

1/25/82

Kathleen Croston

Mr. Crozier - Head of Environmental opened meeting explaining the NACIP programs. Explained how JANODIS participates in the " " of various programs explained, + JANODIS's input. Explained how important JANODIS is to the programs.

Donna Williams - New program. Demands on JANODIS need Coop for information. Introduced Wallace Baker + WAR as contractor. Have available for IAS some sensitive areas, to reports, PA, Temp, Cond

Wallace Baker - Slide presentation - emphasized importance of JANODIS opening files.

IAS - Introduced Team leaders.

Questions - How did prior work come up + related Cherry Pt - Lejeune. How about deals Navy may be trying to access.

Jeff Heath ~~AMSA~~

Bill Powers. Wallace Eakes - NEESA contact - Project officer.

Pot Progress Rep
Airt work completed

Work to be done

Contract calls for 15th of each month.

Pd by NCEL - Navy Civil Engr Lab. -

703/644-5311 Econo Lodge - Springfield, Va.

- Casa Via Mar - 805/984-6222 -

- good motel -

Holiday Inn - Ventura -

Casa Serena -

during preliminary visit - bring along extra empty carry material for maps etc will leave when leave.

Camp Sejune - largest land area - will take perhaps longer.

Do Camp Sejune + Cherry Pt. - simultaneously, but not Norfolk,

- At initial site visit - Command brief of present activity -
lodging for team -

NAFAE - History Office

1. Files on bases

3. NEESA - ~~Aviation~~ Computer

2. photos on bases.

chumps on selected bases.

(Info + Resources Mgmt Office -)

H₂O Qual. Current environmental data
2000-2001

NEESA - Library -
Permits (NPDES for example)
RASO - }
Radiological - }

Hazardous Waste Mgmt Plans - Carl Healy -
Super fund notification funds.
Salt farm -
John Anderson - PCB -

Fact Sheet for U.S. Navy's Proposed Landing Craft
Air Cushion Operational Base Siting
And Development

~~Press Release~~
~~Tom Peeling~~
~~Code 2022E~~
~~February 11, 1982~~

The U.S. Navy is developing an advanced amphibious assault craft capability that is almost as revolutionary as the inception of the helicopter. The new amphibious craft, classified as the Landing Craft, Air Cushion (LCAC), utilizes existing air cushion vehicle technology and is scheduled for fleet introduction in 1986.

The LCAC will be a high speed (50 mph over water), over-the-beach, ship-to-shore, amphibious craft capable of transporting a 60-ton payload. The wide design (87 ft. x 47 ft.) and inherent stability of the LCAC will permit it to load up to three lines of trucks, jeeps, and other module equipment by way of its bow and stern ramps. The LCAC is truly amphibious and can make the transition from water to land with ease. Once ashore, it can operate over mudflats, beaches, sand dunes, marshes, and estuaries at relatively high speeds.

The LCAC will provide several new dimensions of survivability for the assault forces it carries to the beach:

- o The high craft speed and maneuverability will allow the LCAC to remain "over the horizon" beyond enemy visual observation until the last possible moment. This capability will result in far fewer casualties than expected with beach assaults by conventional craft.
- o The LCAC will ride on a cushion of air and thus will be able to cross beach obstacles and enemy mines with minimum susceptibility to damage.
- o The LCAC coastal penetration capability will open up a full 70% of the world's beaches to LCAC assault as compared to 17% of the beaches available to existing conventional craft.

A necessary component of the LCAC program is the development of associated support facilities, including an east coast operational base from which the LCAC will function. It is anticipated that the base will provide support for 54 LCACs and associated functions. Candidate sites have been restricted to a geographical area defined by a circle of 50-mile radius around the Naval Amphibious Base at Little Creek, Virginia.

All military installations within the area of consideration that had approximately 50 acres of potentially available land and a mission not obviously incompatible with LCAC operations were surveyed. Ten candidate sites were evaluated using specific criteria relating to ocean access, available support facilities, mission compatibility, environmental factors, and physical characteristics. Based on that evaluation, the following sites are considered prime candidates for selection as an LCAC base:

Press Release
Tom Peeling
Code 2022E
February 11, 1982

Naval Amphibious Base, Little Creek, Virginia
Naval Amphibious Base Annex, Camp Pendleton, Virginia

In compliance with the National Environmental Policy Act (NEPA), the Navy will complete a Draft Environmental Impact Statement (DEIS) to assess the potential impacts of siting LCAC operational bases at the above listed prime candidate sites. Factors such as noise, generated waves, craft speeds, training beach location, and physical placement of the base will be addressed in the DEIS.

As a first step in the environmental documentation process, a public scoping meeting will be held March 2, 1982 at 7:30 P.M. at the Thalia Elementary School (Cafeteria), 421 Thalia Road, Virginia Beach. The purpose of this meeting will be to present more detail on the proposed project and to receive public comments concerning areas/topics of potential environmental concern.

When the DEIS is completed, a public notice of its availability for review by the public will be announced in order that interested persons may comment on that document. A Final Environmental Impact Statement (FEIS) will incorporate all comments received from the public. The Navy will submit the DEIS and FEIS to appropriate federal, state, and local agencies as required by law. No decision to begin construction will be made until the environmental process is complete, including publishing a Public Record of Decision.

Point of contact for information directly concerning the public scoping meeting and the environmental documentation process is:

Commander
Naval Facilities Engineering Command
Hoffman Building II, 200 Stovall Street
Alexandria, Virginia 22332
ATTN: Tom J. Peeling, Code 2022E.

Briefing
JAS
Checkey Point

June 27, 1982

JOHN McMAHON	DFDO	EX. 2743 or 5905
*Vernon C. Guthrie	Util. Div. FMD	2112
Hugh Putnam	Waterline Reservoir	904/372- 6426 ¹⁵⁰⁰
Jeany Wallmeyer	LAUTDID	A/V 690 7566
Daniel Travis	NREA	3641/4186
T R ADKINS	FAC MAINS DEPT	5741
Wallace Eales	NEESA	AV 360-3351
Ted Colbert	FAC Engr	2858 or 2441
Phil Fisher	" "	" "
LTCOL A.L. Amidon	FAC DEV	2851
FERRY STEINBOEL	W. A. 2	904/312/1500
LTCOL HAYNES	JPAO	4241
Eddie Smith	FAC. Maint Dept	
COR JR. COTTINGHAM	FAC ENGR/OICC	3469
Edward A. Bellis	WAREWORK FAC	3544

Sullivan

Please insert in
your IAS notebook -
they were distributed
last week - if you did
not receive - please
see Cindy.

Thank you!

Interviewer's Name _____
Date _____

**INITIAL ASSESSMENT STUDY
INTERVIEW REPORT**

- This report contains significant waste disposal information
 This report contains additional names for interviews.

Name of Base _____

Name and Phone No. _____

Address _____

City, State, Zip Code _____

Years Employed _____ Job Title _____

Years Employed _____ Job Title _____

REMARKS:

ADDITIONAL CONTACTS:

Name _____ Address _____ Phone _____
Name _____ Address _____ Phone _____

SECTION II. DISPOSAL OF SPECIAL WASTES

This section of the fact form will ask about waste disposal sites that are or have been operated by the activity. If a disposal site(s) is identified in this section, section III should be filled out.

To complete this section (and section III, if necessary), activity records should be examined and knowledgeable activity personnel should be interviewed. Long-time activity employees will be invaluable in this effort, since they will be familiar with past disposal operations. If deemed necessary to accurately complete this section, preliminary field investigations may also be performed (however, this fact form does not warrant extensive investigations such as soil borings and waste analyses).

1. Have any of the following techniques ever been used to dispose of chemicals or special wastes on base? Do not include trash or garbage (check the appropriate boxes).

	Operations Present/Past	
Solvent Pit	<input type="checkbox"/>	<input type="checkbox"/>
Acid/Caustic Pit	<input type="checkbox"/>	<input type="checkbox"/>
Slurry (Chemical Mixtures) Pit	<input type="checkbox"/>	<input type="checkbox"/>
Waste Oil/Oil Sludges Pit	<input type="checkbox"/>	<input type="checkbox"/>
Evaporating Pit	<input type="checkbox"/>	<input type="checkbox"/>
Grease Pit	<input type="checkbox"/>	<input type="checkbox"/>
Surface Spreading	<input type="checkbox"/>	<input type="checkbox"/>
Open Burning (Examples: Firefighting Training, Ordnance Waste) ..	<input type="checkbox"/>	<input type="checkbox"/>
Incinerator	<input type="checkbox"/>	<input type="checkbox"/>
Land Disposal with State Permit	<input type="checkbox"/>	<input type="checkbox"/>

Radioactive Waste Burial
 Any other disposal operations? Please explain _____

*Do not include industrial waste treatment/pretreatment facilities that are subject to pretreatment regulations or NPDES permits. Disposal of industrial sludge should be included, however.

SECTION II. DISPOSAL OF SPECIAL WASTES (CONTINUED)

2. The following questions are intended to find out whether small-scale disposal of chemicals or special wastes (whether intentional or not) may have occurred at the activity. If the activity has ever run an operation listed below, check the box in column 1 (some of these operations may have been noted in section I). If a box in column 1 is checked, go to column 2 and check the box if the answer to the question in column 2 is "yes."

	Column 1		Column 2
Refuse disposal site	<input type="checkbox"/>	Did this site ever receive chemicals or special wastes?	<input type="checkbox"/>
Pest control shop	<input type="checkbox"/>	Have pesticides or pesticide rinses ever been disposed of anywhere on a regular basis?	<input type="checkbox"/>
Firefighting training using open burning	<input type="checkbox"/>	Were substances other than oil (e.g., solvents) burned?	<input type="checkbox"/>
Ordnance operations	<input type="checkbox"/>	Were ordnance wastes ever disposed of on base?	<input type="checkbox"/>
Storage of chemical materials or special wastes in a specified area	<input type="checkbox"/>	Have these materials ever leaked or otherwise escaped confinement?	<input type="checkbox"/>

3. Section III should be completed for each disposal site identified in question 1 of this section. Section III should also be filled out for any significant disposal site identified in question 2. If the activity has NEVER disposed of chemicals or special wastes on base, completion of section III is not required.
4. Have any accidents involving hazardous materials ever occurred at the activity? If so, briefly describe the incidents.

SECTION II. DISPOSAL OF SPECIAL WASTES (CONTINUED)

5. Are/were there any chemical or special waste disposal sites run by organizations outside the activity's fenceline which may present a current hazard to on-base personnel? Did the activity ever operate disposal sites on property which has since been exsessed? Please explain.

6. In answering the questions in this section, was reliable information available on past operations? How far back in the past? What sources were used? Please explain.

7. Additional comments _____

ACTIVITY _____

UIC _____

SITE NUMBER _____

SECTION III. DETAILED DISPOSAL INFORMATION

This section should be completed only if active or past disposal sites were identified in section II. Section III should be completed for each site. As an example, say your activity has three sites. Make three copies of section III and complete them. Assign a number to each site (1, 2, and 3) and enter it in the upper right-hand corner.

1. Is this disposal site currently in operation or has it been closed? _____

Years of operation: From _____ To _____

2. What is/was the name of the site (e.g., slurry pit)? _____

3. Where is/was the site located (provide a description and give activity map coordinates)?

4. Describe how the site is/was operated. _____

ACTIVITY _____

UIC _____

SITE NUMBER _____

SECTION III. DETAILED DISPOSAL INFORMATION (CONTINUED)

5. If the site was closed, briefly describe the closure procedures. _____

6. As well as possible, describe the wastes that entered the site.

<u>Type of Waste</u>	<u>Quantity</u>	<u>Origin</u>

ACTIVITY _____

UIC _____

SITE NUMBER _____

SECTION III. DETAILED DISPOSAL INFORMATION (CONTINUED)

7. Describe the site's hydrogeology, including information on terrain, soils, water table depth, groundwater quality, nearby surface waters, etc.

8. Briefly describe animal and plant life surrounding the site, including any peculiarities (e.g., dying plants).

9. Do personnel live or work near the site? Please explain. _____

ACTIVITY _____

UIC _____

SITE NUMBER _____

SECTION III. DETAILED DISPOSAL INFORMATION (CONTINUED)

10. Have there been any incidents or complaints concerning this site? Explain.

11. How close is the site to the activity's boundaries? _____

12. Additional comments _____

APPENDIX A
MONITORING-WELL CONSTRUCTION

APPENDIX A--MONITORING WELL CONSTRUCTION

A-1. RECOMMENDATIONS FOR GROUNDWATER MONITORING

A-1.1 Monitoring Well Inventory. Wells that have been improperly abandoned or that have been out of service for a long period are potential conduits for contamination from the water table aquifer to those deeper. Many of the wells at Camp Lejeune have been abandoned or are no longer in service, but there is not a complete inventory of the location or abandonment procedure.

It is recommended that the status of wells at the installation be clarified by determining the location of all the wells that have ever been drilled at the base. A comparison of the complete list of wells with the wells now in use will show those that have been abandoned or that are out of service. If these wells are close to and downgradient of a confirmed hazardous waste site, a further assessment of the wells' status should be made. This assessment should include the reason for abandonment or nonuse, the date when the well was last used, how it was abandoned (if applicable), future plans for the well (if not yet abandoned), and a review of any chemical/physical data available.

A satisfactory abandonment procedure involves filling the well and gravel pack with grout so that contaminants cannot migrate between aquifers.

A-1.2 Monitoring Well Installation. Each monitoring-well should be constructed so that it has both an efficient hydraulic connection to the surrounding water table aquifer and an effective seal against the migration of surface waters into the borehole.

The following techniques and materials are recommended to accomplish these two aims (Figure A-1):

1. Drill an 8-inch borehole to 10 feet below the water table, as noted during drilling. Collect representative lithologic samples every 5 feet during drilling for preparation of the lithologic log.
2. Install a string of threaded, flush-joint, 2-inch, schedule 40 PVC well casing and well screen. Set the top of a 10-foot length of PVC well screen at the water table if the water table is within approximately 5 feet of land surface. If the water table is encountered at greater depths, some portion of the well screen should be set above the water table. The recommended well-screen slot size is 0.010 inch. The top of the casing should extend approximately 12 to 18 inches above ground level.
3. After the well casing and screen have been installed in the borehole, place a filter pack of fine- to medium-grained quartz sand in the annular space from the bottom of the hole to approximately 2 feet above the top of the screen.

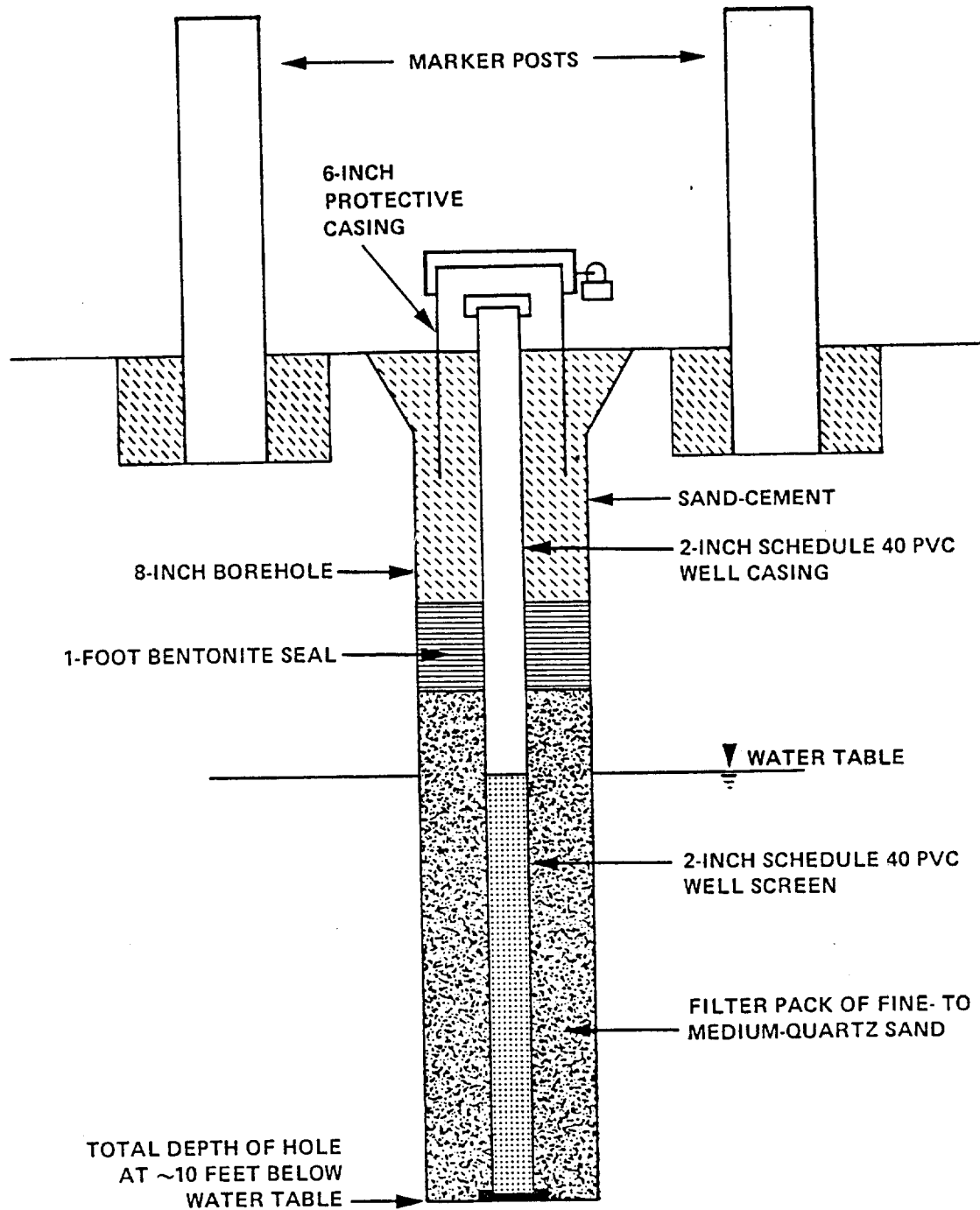


FIGURE A-1. Recommended Monitoring-Well Construction

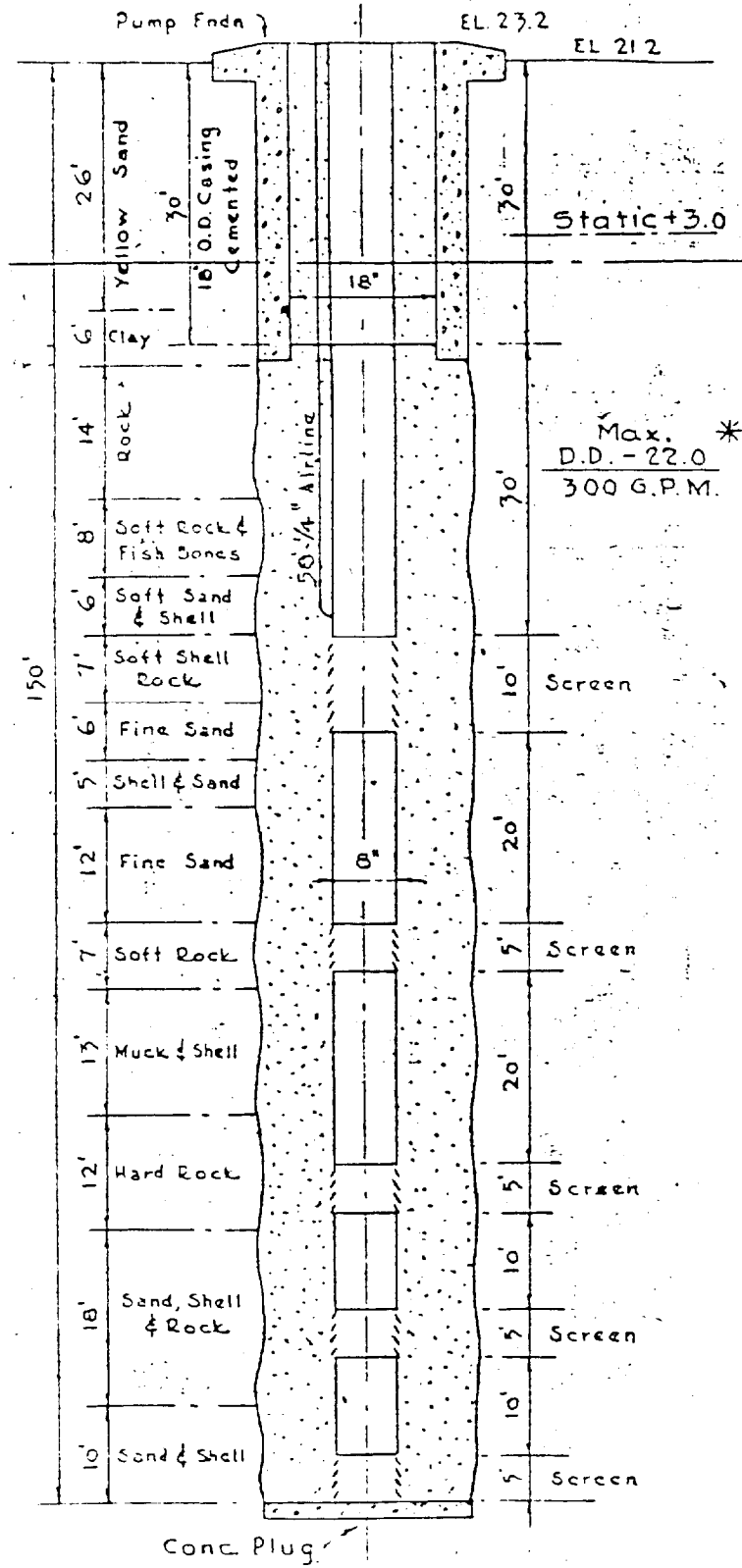
4. Place a 1-foot seal of bentonite pellets in the annular space on top of the filter pack.
5. Fill the remainder of annular space with a sand-cement grout composed of two parts dry weight of sand to one part of cement with not more than 6 gallons of clean water per bag of cement (94 pounds or 1 cubic foot).
6. Install a 5-foot-long, 6-inch diameter, steel protective casing 3 feet into the grout. The protective casing should have a lockable steel cap and a padlock. The above-ground portions of both the protective casing and the PVC well casing should be vented with a 1/8-inch hole to permit the water in the well to fluctuate freely.
7. Install two 8-foot-long, 4-inch diameter, black steel marker posts adjacent to each well. Bury each marker post 3 feet and set it in sand-cement. Paint the upper 2 feet of each marker post day-glo orange.
8. Establish the vertical elevation and horizontal coordinates of the top of the casing (cap removed) to second order accuracy.

It may be necessary to vary the placement of the top of the screen and the thickness of the bentonite seal and the sand-cement grout if the water table is less than 5 feet below land surface.

APPENDIX B--ABBREVIATIONS LIST

<u>Abbreviation</u>	<u>Term</u>
AID	Accident Incident Data Bank
AMTRAC(s)	Amphibious Tractor(s)
BAT	Best Available Technology
BT	Bombing Target
CIA	Controlled Industrial Area
CMC	Commandant Marine Corps
COD	Chemical Oxygen Demand
CNO	Chief of Naval Operations
CSRS	Confirmation Study Ranking System
DPDO	Defense Property Disposal Office
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
FMF	Fleet Marine Force
FSSG	Force Services Support Group
GWCI	Ground Water Contamination Indicators
HOLF(s)	Helicopter Outlying Landing Field(s)
IAS	Initial Assessment Study
IWTP	Industrial Waste Treatment Plant
LANTNAVFACENGCOM	Atlantic Division, Naval Facilities Engineering Command
MACS	Marine Air Control Squadron
MAG	Marine Aircraft Group
MCALF	Marine Corps Auxiliary Landing Field
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MC Bul	Marine Corps Bulletin
MCOLF	Marine Corps Outlying Landing Field
MEK	Methyl Ethyl Ketone
NACIP	Navy Assessment and Control of Installation Pollutants
NAVAIREWORKFAC	Naval Air Rework Facility
NAVFACENGCOM	Naval Facilities Engineering Command
NBC	Nuclear, Biological, Chemical
NCBC	Naval Construction Battalion Center
NEESA	Naval Energy and Environmental Support Activity
NCIC	National Cartographic Information Center
NREA	Natural Resources and Environmental Affairs
NSWC	Naval Surface Weapons Center
OESO	Ordnance Environmental Support Office
OLF(s)	Outlying Landing Fields
POL	Petroleum, Oil, Lubricant(s)
PWDM	Public Works Development Map
RCRA	Resource Conservation Recovery Act
SAFEORD	Safety Ordnance File
STP	Sewage Treatment Plant
TCE	Trichloroethylene
THM	Trihalomethane(s)
WAR	Water and Air Research, Inc.
WTP	Waste Treatment Plant
2d FSSG	Second Force Service Support Group

APPENDIX C
LOGS OF WELL NOS. HP-613 and HP-616



HP-613



UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

BO 11090.1B
MAIN/DDS/th
28 May 1981

BASE ORDER 11090.1B

From: Commanding General
To: Distribution List

Subj: Oil Pollution Prevention and Abatement and Oil and Other Hazardous Substances Spill Contingency Plan

Ref: (a) MCO P11000.2A
(b) Resource Conservation and Recovery Act (RCRA) of 1976 (NOTAL)
(c) Clean Water Act (NOTAL)
(d) Oil Spill Prevention Control and Countermeasure Plan of 10 June 1978, Camp Lejeune, NC (NOTAL)

Encl: (1) Oil and Hazardous Material Spill Prevention, Containment, Cleanup and Disposal Guidelines
(2) Oil and Other Hazardous Material Spill Contingency Plan

1. Purpose. To revise existing oil and other hazardous material related pollution abatement and prevention procedures for Marine Corps Base, Camp Lejeune and Marine Corps Air Station (Helicopter) (MCAS(H)), New River and to assist the Commanding General in the implementation of reference (a) with respect to pollution abatement.

2. Cancellation. BO 11090.1A.

3. Policy. It is the continuing policy of the Commanding General to actively participate in environmental pollution abatement, to take positive planning and programming action to abate and correct oil and other hazardous materials, related pollution problems and to incorporate appropriate pollution control and prevention facilities in all new construction aboard this installation. The intent of this policy is to carry out the applicable measures of references (a), (b), (c) and (d) and to prohibit the discharge of oil, oily mixtures and other hazardous substances except in designated areas by authorized personnel.

4. Responsibilities

a. Base Maintenance Officer has overall responsibility for:

(1) Maintenance of water pollution abatement facilities and the central storage and related collection and transportation of waste petroleum products.

(2) Providing personnel required for routine monitoring, surveillance, upchannel reporting and enforcement of unauthorized discharges of oil and other hazardous materials and related significant environmental problems of an ongoing nature involving the handling and disposal of petroleum products and other hazardous materials regulated by references (a), (b) and (c).

b. Commanding Officers/Area Commanders are charged with the responsibility of preventing spillage and other unauthorized discharge of oil and other hazardous materials within their own areas and will develop and implement plans and procedures which are consistent with applicable regulations and enclosures (1) and (2) for preventing, reporting, containing and cleaning up such spillage or unauthorized discharge.

c. Director, Natural Resources and Environmental Affairs Division, Base Maintenance Department or his representative will assume responsibility of On-Scene Coordinator (OSC) upon arrival at the scene of an oil or other hazardous material spill in accordance with procedures outlined in references (a) and (b) and enclosure (2).

d. Base Fire Chief or his senior representative will provide initial response and other assistance with any spill of oil or other hazardous material as outlined in enclosure (2), until a verification is made that the reported spill has occurred in an aircraft operating area aboard MCAS(H), New River. If the latter situation exists, the Base Fire Chief will provide a standby crew to assist, if the crash crew MCAS(H), New River is unable to contain the spill within the aircraft operating area.

e. Crash Crew, MCAS(H), New River will develop and implement a written procedure for the initial response to and containment and cleanup of oil and other hazardous materials spills in aircraft operating areas aboard MCAS(H), New River. Procedures will be consistent with applicable regulations and enclosure (2).

5. Action. Discharge of oils or other hazardous materials on or into the grounds and streams of this installation is prohibited. Cognizant officers will take necessary action to assure compliance. Commanding Officers/Area Commanders shall conform to the standards and criteria set forth in enclosures (1) and (2).

BO 11090.1B

28 MAY 1981

6. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF; 2d Force Service Support Group, (Rein), FMFLANT; and the Commanding Officers of the Marine Corps Air Station (Helicopter), New River and tenant units; Naval Regional Medical Center; and Naval Regional Dental Center, this Order is applicable to those Commands.

J. R. Fridell
J. R. FRIDELL
Chief of Staff

DISTRIBUTION: A
BMAINO (100)

OIL AND HAZARDOUS MATERIAL SPILL PREVENTION, CONTAINMENT, CLEANUP, AND DISPOSAL GUIDELINES

1. The prevention of oil and hazardous-material spills and the resultant environmental damage is the responsibility of all Commanders.
2. All Commanders and Department Heads will publish and prominently post directives setting forth detailed policies and procedures for the control and prevention of oil and hazardous-substance pollution specifically applicable to their organization.
3. All Commanders and Department Heads will take the following actions:
 - a. Take positive measures to prevent spills of oil and hazardous substances to include a review of the Command's maintenance and operational procedures.
 - b. Conduct frequent inspections of areas and facilities assigned to ensure compliance with published procedures.
 - c. Establish immediate action procedures for the amelioration of pollution which may result from oil and hazardous-substance spills, to include the stocking of materials required to carry out the procedures.
 - d. Ensure that all personnel within their Command are thoroughly indoctrinated regarding the environmental impact of oil and hazardous substance spills and proper disposition of oil and hazardous substances.
 - e. Encourage maximum reuse of technically contaminated fuels by multifuel-engine powered tactical vehicles.
4. The following guidelines are generally applicable to garrison operations:
 - a. Contaminated fuels which cannot be burned in tactical vehicles and other used petroleum products, except gasoline, will be collected in a tank of at least 250-gallon capacity equipped with a funnel, strainer and cover to prevent entrance into the tank of trash, water and other foreign matter. When the container requires emptying, the Officer in Charge (OIC) will notify the Base Maintenance Department (Telephone 5909). The Base Maintenance Department will dispatch a vehicle to remove the waste oil. In the event of an emergency 55-gallon drums may be used as a temporary expedient storage container for waste oil.
 - b. Waste lubrication grease will be collected, stored in suitable containers and disposed of in accordance with instructions provided by Base Maintenance Department representative. Send request via Chain of Command to the Base Maintenance Officer.
 - c. Oil-saturated soil in the vicinity of oil and petroleum storage areas should be removed to the sanitary landfill and replaced with fresh earth.
 - d. To dispose of contaminated gasoline contact the Base Fire Department (Telephone 3004).
 - e. Disposal of hazardous waste and other hazardous substances such as acids, poisons and solvents through any drainage system to include sinks, wash racks, storm drains and natural drainage systems is specifically prohibited. These products will be segregated and stored in suitable containers and will be disposed of in accordance with instructions provided by Commanding General, Marine Corps Base, Camp Lejeune.
 - f. Petroleum products containers will be disposed of at the sanitary landfill, or recycled, if appropriate, with the exception of 55-gallon drums and durable metal containers which will be disposed of through the Defense Property Disposal Officer, Building 906.
 - g. Personnel changing private owned vehicle (POV) oil on Base will use established Base Special Service facilities and deposit waste oil in one of the authorized collection tanks on Base and the Air Station.
 - h. Oil and gasoline storage containers larger than 550-gallon capacity will be diked to include a drainage line and valve which will be locked. The latter will be operated only by personnel authorized by the Unit Commander.
5. Field operations will comply with the guidance enumerated in the following subparagraphs:
 - a. All tactical refueling systems installed on Base must first be approved by the Base Maintenance Officer.
 - b. Fuel stored in tactical refueling systems will be properly diked, as required by current regulations. As a general rule, the dike must be capable of containing at least the volume of the container stored within it.
 - c. When using fuel tanker vehicles:
 - (1) Hoses, nozzles and connections will be checked frequently for serviceability to avoid leakage of fuel.
 - (2) Refueler operators will stay with the vehicle during refueling operations.
 - (3) Tanker vehicles containing fuel will be parked in such a manner as to avoid the possibility of spilled fuel entering natural or man-made drainage systems.
 - (4) During recirculation operations, nozzles will be secured to the vehicle.
 - (5) All waste petroleum products generated during field exercises will be stored (55-gallon drums, etc.) and disposal instructions obtained from the Director, Natural Resources Division, Base Maintenance Department (451-5003).

BO 11090.1B

88 MAY 1981

OIL AND OTHER HAZARDOUS MATERIAL SPILL CONTINGENCY PLAN

FOR

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA
MARINE CORPS AIR STATION (HELICOPTER), NEW RIVER, JACKSONVILLE, NORTH CAROLINA
MARINE CORPS HELICOPTER OUTLYING FIELD, OAK GROVE, JONES COUNTY, NORTH CAROLINA

PREPARED

OCTOBER 1980

28 MAY 1981

1. Reporting Spills of Oil and Other Hazardous Substances

a. Materials Classification - The following products are examples of oil compounds or hazardous substances which must be reported if spilled on the ground or water in any amount:

Lube Oils	JP-4 & JP-5 Fuels	Paint Thinner	No. 6 Fuel Oil
Gasoline	Hydraulic Fluid	Organic Solvents	
Kerosene	Acids	Cleaning Solutions	
Lube Grease	No. 2 Fuel Oil	Poisonous Chemicals	

b. Reporting Procedures - All spills of oil or hazardous materials shall be reported immediately to the Base Fire Department Phone 3333 (on base) or 451-3333 (off base). The report shall include location (Building Number) of spill, substance spilled and the approximate amount. All spills occurring at Marine Corps Air Station (Helicopter), New River will also be reported to the Station S-4 (455-6068 - 455-6518) during normal working hours and to the Station Officer of the Day after normal working hours (455-6111).

c. Posting of Oil Spill Procedure - Signs shall be posted in every building, tank location and field service location where oil or hazardous materials are used. The sign shall have a yellow background with black lettering indicating the following information:

IN CASE OF AN OIL OR HAZARDOUS MATERIAL SPILL
CALL BASE FIRE DEPARTMENT
ON BASE 3333/OFF BASE 451-3333
NOTIFY YOUR COMMANDER/SUPERVISOR IMMEDIATELY

d. Initial Containment Procedure - Remain in area - - - Do Not Wash Down With Water - - - Keep Personnel Out of the Area - - - Block Runoff with Earth Materials to Prevent Spreading, when possible.

2. Response to Spill

a. Fire Department - Fire Department shall dispatch a regular fire fighting unit to the scene of a reported spill. The Base Fire Chief or his senior representative shall report to the scene as soon as possible. Dispatcher will immediately notify the Base Fire Chief or his senior representative who will perform the following duties:

- (1) Assume the role of On-Scene Coordinator (OSC).
- (2) Take all necessary immediate steps to contain the spill, eliminate any fire hazards and protect all personnel from exposure and request the assistance of the Base Safety Officer, if required (See page 4, Enclosure (2)).
- (3) Notify the Natural Resources and Environmental Affairs Director (Telephone 5003) of the spill location and the nature and quantity of spilled materials.
- (4) Evaluate the spill situation and request necessary logistical support from the Base Maintenance Officer to contain the spill and facilitate the cleanup and recovery of the spilled materials.
- (5) OSC duties shall transfer to the Director, Natural Resources and Environmental Affairs upon his arrival at the scene. (See page 4, Enclosure (2) for Personnel and Public Safety Coordination).

b. Base Maintenance Officer

- (1) Base Maintenance Officer shall maintain the inventory of materials and equipment as established in Appendix A of enclosure (2).
- (2) Base Maintenance personnel shall respond immediately to the request of the OSC with men and equipment requested.

(a) Direct supervision shall be from the OSC.

(b) Maintenance personnel shall remain at the spill scene until authorized to depart by the OSC.

c. Natural Resources and Environmental Affairs Division

(1) The Director or his authorized representative shall proceed to the scene and assume the duties of the OSC. The duties shall include the following categories:

- (a) Direct all containment and cleanup activities.
- (b) Report oil spills that discharge into the inland waters or coastal waters to the following: Base Maintenance Officer; Assistant Chief of Staff, Facilities, Marine Corps Base; Marine Safety Officer, U. S. Coast Guard, Wilmington, North Carolina and the Environmental Regulatory Agencies, as required.
- (c) Request U. S. Coast Guard assistance for spills into waters that cannot be contained promptly by joint efforts of the Fire Department and Base Maintenance crews.

(2) The Natural Resources and Environmental Affairs Division Director or his representative shall remain at the scene of the spill until all contaminant is properly contained and the danger of oil contamination of waterways is eliminated.

(3) At the conclusion of all cleanup operations, the official report submitted to the Environmental Protection Agency (EPA), Region IV, shall be prepared in accordance with requirements of Federal Water Pollution Control Act and EPA regulations in effect at the time. The report shall be transmitted to EPA through the directives of the Commanding General.

3. Spill Containment and Cleanup

a. Small Spills (less than one gallon)

(1) Cause: Gasoline or fuel oil spills at fueling locations occur by overfilling or blow back from the tank receiving the fuel.

(2) Reporting: This type of spill requires reporting to the Office of Natural Resources and Environmental Affairs (Phone 1-919-451-5003). The fuel spill must be promptly cleaned up by the person at the scene.

(3) Containment Procedures:

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) Cover entire spill with sand or absorbent material from storage bin or container. Add material as liquid appears in the surface of the sand or absorbent material.

(c) Cleanup contaminated sand or absorbent material with broom and shovel placing it in a container (metal) for disposal or possible reuse. The container shall be labeled "Waste Oil Refuse".

(d) If storage bin of sand or absorbent material is less than one-half full after using, call Base Maintenance Department (3001) to inform them of the location needing additional material.

(e) Reapply a second coat of sand or absorbent material in a very light layer to assure all gasoline or fuel oils have been blotted up. Brush material back and forth over the area and then sweep up completely. This material can be replaced in the fresh storage bin rather than depositing it in the "Waste Oil Refuse" container.

b. Spills on Concrete Aprons (more than one gallon)

(1) Reporting: Call Base Fire Department

(2) Containment Procedures:

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) The person on-site shall erect a two-to-three inch high sand or earth dam on the concrete or at the edge of the concrete below (downstream) the direction that the spill is flowing. This is the first step in containment.

(c) Apply sand or absorbent materials that are available around the perimeter of the spill until the Fire Department arrives. Keep other personnel away from the area.

(d) Fire Department shall continue abatement methods using equipment available until the Director of Natural Resources and Environmental Affairs Division or his representative arrives to determine further containment and cleanup requirements.

(e) Base Maintenance personnel shall install dams, straw barriers, pumping equipment and other abatement or cleanup equipment as directed by the OSC.

c. Spills on Ground (more than one gallon)

(1) Reporting: Call Base Fire Department

(2) Containment Procedures:

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) The person on-site shall erect a minimum three-inch high sand or earth dam below (downstream) the direction that the spill is flowing. The dam should be made higher if the liquid pool behind the temporary dam rises to within two inches of the top. A trench or sump may be used in lieu of a dam. This is the first step in containment that must be taken promptly to prevent spreading into surface waters.

(c) Apply sand or absorbent materials that are available around the perimeter of the spill until the Fire Department arrives. Keep other personnel away from the area.

(d) Fire Department shall continue abatement methods using equipment available until the Director of Natural Resources and Environmental Affairs Division or his representative arrives to determine further containment and cleanup requirements.

28 MAY 1981

(e) Base Maintenance personnel shall install dams, straw barriers, absorbents, pumping equipment and other abatement or cleanup equipment as directed by the OSC.

d. Spills Entering Storm Drainage System

(1) Reporting: Call Base Fire Department and emphasize that the liquid has entered a catch basin, manhole, drainage ditch, or any structure (pit) below ground.

(2) Containment Procedures:

(a) DO NOT ADD WATER TO FLUSH OUT STORM SEWER OR STRUCTURE.

(b) The person on-site shall attempt to erect a sand or earth dam around or cover with polyethylene or other plastic materials the manhole or catch basin to prevent further entrance of liquid into the structure. This is the first step in containment that must be taken promptly to minimize the quantity of liquid that will be discharged into surface waters.

(c) The person on-site shall apply sand or absorbent materials that may be available around the perimeter of the spill and at the manhole or catch basin until the Fire Department arrives.

(d) Base Maintenance personnel shall place oil booms across storm drains to prevent further discharge. Public Works Department will develop maps of drainage systems required for siting booms. After spill is contained, cleanup will be initiated. Action may include the following:

1 Inspect downstream manholes for evidence of oil progression toward discharge. If storm system has a very low flow, install straw barrier or absorption dam inside manhole.

2 Where practical, install plug in upstream side of manhole, to contain in the pipe system.

3 If the drainage system has an open ditch, install straw bale dams or absorption dam to collect spilled materials.

4 Isolate streets with contaminated manhole to prevent fires or explosions.

(e) The Director, Natural Resources and Environmental Affairs Division, or his representative shall determine further containment and cleanup requirements after arriving on the scene.

(f) Base Maintenance personnel shall install dams, straw barriers, absorbents, pumping equipment and other abatement and cleanup equipment as directed by the OSC.

e. Spills Entering Surface Waters

(1) Reporting: Call Base Fire Department and emphasize that the liquid was discharged directly into the surface waters.

(2) Containment Procedure:

(a) Person at the site should check the source of discharge to be assured that no further discharge can occur. Close valves, remove hose, or isolate the source from causing any further release of materials.

(b) Do not allow boats or equipment to enter the surface waters where the spill has occurred. If surface type oil absorbents are available, begin spreading this material wherever an oil skim is observed. Do not enter the water to apply this material until the Fire Department arrives.

(c) Fire Department shall continue abatement methods using equipment available until the Director of Natural Resources and Environmental Affairs Division, or his representative arrives to determine further containment and cleanup requirements.

(d) Base Maintenance personnel shall install booms, skimmers, pumps and other abatement or cleanup equipment as directed by the OSC.

4. Responsibilities for Ensuring Personnel and Public Safety

a. Overall responsibility for ensuring the safety of personnel involved in the containment and cleanup of hazardous material spill is assigned to the Base Fire Chief or his senior representative. The Base Fire Chief representative shall continue to monitor the situation and will provide required standby personnel and equipment. The Base Fire Chief representative will request the assistance of the Base Safety Officer as needed. The Base Fire Chief representative shall keep the OSC informed of any safety considerations affecting the containment and cleanup of the spill. In the event of imminent hazard to personnel involved in the spill cleanup or to the public, Base Fire Chief representative shall take appropriate action. The OSC shall assist the Base Fire Chief representative implement safety procedures required.

b. Base Safety shall dispatch a safety representative to the spill scene upon request from the Base Fire Chief representative. The Base Safety representative will remain at the scene until advised by the Base Fire Chief representative that assistance is no longer required. Base Safety representative will monitor all activity at or near the spill and make appropriate recommendations to the Base Fire Chief representative.

MATERIALS AND EQUIPMENT FOR OIL SPILL
CONTAINMENT AND COUNTERMEASURE

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>
1.	Gasoline engine driven (portable) trailer mounted diaphragm pump with sectional suction and discharge hose - minimum capacity 25 gallons per minute.	2
2.	Sectional aluminum oil boom	
3.	Inflatable oil barrier, Whittaker Expandi self-inflating	300 L. F.
4.	Collapsible bag for field filling of collected oil-250 gallon capacity	2
5.	Oil skimmer (portable) type for water floating oil pick-up	1
6.	Baled hay or straw with wire or nylon baling (located at strategic areas)	200 Bales
7.	Steel fence stakes (6 feet long)	50 each
8.	Woven wire mesh (chicken wire) 3ft. width 4ft. width	200 L.F. 100 L.F.
9.	Sledge hammer - 10 lb. 5 lb. 2½ lb.	3 5 5
10.	Shovels - Long handle round point Long handle flat blade Short handle round point Short handle flat point	5 5 5 5
11.	Oil Absorbent Compound - for water spill clean up	2000 lbs.
12.	Oil Absorbent Compound for ground spill clean up - Randustrial P-218 Oil Absorbent (55-gallon drum)	25 drums
13.	Nylon rope - ½" diameter ½" diameter ¾" diameter	200 L.F. 400 L.F. 400 L.F.
14.	Oil Sorbent Material - 3M, Conwed or Grefco	500 lb.

TELEPHONE DIRECTORY



MARINE CORPS BASE CAMP LEJEUNE, N.C. 28542

GENERAL INSTRUCTIONS

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AUTOVON OFF-NET	Page 5
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MCAS	Page 67
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NAVAL REGIONAL DENTAL CENTER	Page 79
NAVAL REGIONAL MEDICAL CENTER	Page 81

THIS IS BLDG. NO.				TELEPHONE NO.		
FIRE	AMBULANCE	PMO	<u>EOD</u>	<u>TROUBLE</u>		STAFF DUTY OFFICERS
3333	3211	2555	0118	UTILITIES	TELEPHONE	MCB - 2528 DIV - 2127 FSSG - 2826 MCAS - 6111
AIRCRAFT CRASH CREW 455 - 6333				3001	1114	
FAMILY HOUSING MAINTENANCE (0800 - 1630) After Normal Working Hours				MCB	MCAS	
ALL OTHER MAINTENANCE REQUESTS				2244/2245	455-6817	
EMERGENCY MAINTENANCE (After 1630)				3001	451-3001	
				3001	455-6818	
				3001	451-3001	

FROM JACKSONVILLE TELEPHONES 451-PLUS NUMBER LISTED

FTS	676 - XXXX
AUTOVON	484 - XXXX
MCAS AUTOVON	486 - XXXX
OPERATOR ASSISTANCE	1113
DIRECTORY ASSISTANCE	1115
TIME AND TEMPERATURE	1117

GENERAL INFORMATION NUMBERS

DUTY NUMBERS

Military Police Desk Sergeant	156
Fire Dispatcher	300
Medical Information	71.1
Red Cross	1
Chaplain	1

DUTY OFFICERS MARINE CORPS BASE

Staff Duty Officer	1
Duty Provost Marshal	1
Courthouse	1
Headquarters	1
Security	1
Intelligence	1
Marine Corps Engineering School	1
Naval Investigative Service (NIS)	1
Rifle Range Detachment	7
Naval Hospital	4300

SECOND MARINE DIVISION

Staff Duty Officer	127
Headquarters	1
Security	59
Eight	119
Tenth	1
Second Amphibious Base	7109
Second Amphibious Engineering Battalion	1
Second Amphibious Logistics Battalion	11
Second Tank Battalion	1851

1st FSSG (REIN)

Headquarters	1
Eight	1
Second Amphibious Battalion	951
Second Amphibious Battalion	1
Headquarters	1
Headquarters	1
Headquarters	1
Headquarters	1

MARINE CORPS ASSOCIATION

Marine Association	1
Marine Association	1

Directory Changes

CAMP LEJEUNE

"World's Most Complete Amphibious Training Base"

Prior to 1940, this Base was farm land devoted to the growing of tobacco, peanuts, and other crops typical of this area. Some 640 families lived on the land and derived their livelihood from farming and fishing until, in 1940 and 1941, the land was pur- by the Marine Corps. Construction of the new camp, later named in honor of Lieutenant General John A. Lejeune, was begun in April 1941 and completed in late 1942.

Camp Lejeune is located some 350 miles south of Washington, D.C., and 222 miles north of Charleston, South Carolina. Norfolk, Virginia is 213 miles north of Camp Lejeune. The Marine Corps Air Station, Cherry Point, our supporting Air Base is 52 miles away and the distance to Morehead City, our main port of embarkation, is 45 miles.

Known as the "World's Most Complete Amphibious Training Base," Camp Lejeune has a perimeter of 68 miles with 14 miles of ocean front paralleled by the Intracoastal Waterway. The Military Reservation covers 170 square miles or 109,047 acres, of which 26,000 acres are water.

Camp Lejeune is composed of the Main Camp at Hadnot Point, with other smaller Camps at Courthouse Bay, the Rifle Range, Camp Geiger and Camp Johnson. In the Industrial Area of the Camp are located Supply and Maintenance buildings, the Commissary, Laundry, Exchange and Heating Plant. A complete Naval Regional Medical Center is situated on Hospital Point. Also, located within the boundaries of the Camp, is the Marine Corps Air Station (H), at New River.

The Base administers over 4,000 housing units located in various areas of the reservation. Besides providing all maintenance, fire protection, water

purification, police protection and other services normal to a city of over 50,000, the Base also administers its own school systems under the Department of Health, Education and Welfare. Annual enrollment approaches 3,200 pupils.

Three major Commands are located at Camp Lejeune: The Marine Corps Base, 2d Marine Division and 2d Force Service Support Group (REIN).

Marine Corps Base has a two phase mission, the first is to provide housing, training facilities, and logistical support for fleet Marine Force and other units assigned. The second phase of the mission of the Base is to conduct specialized training as directed. This includes over fifty courses. These range from entry level skill training for newly graduated recruits to professional and technical career enhancement courses for NCO'S, SNCO'S and Officers. The Engineer Schools, located at Courthouse Bay, conduct courses in such fields as electricity, plumbing, engineer equipment maintenance and repair, and demolitions. The Service Support Schools, located at Camp Johnson, conduct formal school courses in the fields of food service, supply, motor transport, fiscal, disbursing and instructor training.

The Field Medical Service School trains Medical and Dental Department personnel of the Navy for duty with the Fleet Marine Forces.

This brief description of the activities and composition of Camp Lejeune highlights the fact that this is a large undertaking combining all the problems of city management with the constantly increasing complexities associated with the high standard of combat readiness traditional of the Marine Corps.

GOOD SERVICE STARTS



WITH CAREFUL DIALING

Warning

PLACING PERSONAL LONG DISTANCE CALLS AND BILLING THEM TO GOVERNMENT NUMBERS IS IN VIOLATION OF FEDERAL LAW AND BASE ORDER 2305.5F

DIALING INSTRUCTIONS

LOCAL CALLS

Camp Lejeune Base Telephones

Within Camp Lejeune.....dial listed number
To Marine Corps Air Station (unrestricted telephones)
.....dial 9, wait for
second dial tone
dial listed number

Restricted telephones.....dial 00 and last
three digits of
listed number

To MCAS, Cherry Point.....Dial 1113, when
operator answers,
ask for Cherry Pt.

To Jacksonville (Unrestricted Telephones only)
.....dial 9, wait for
second dial tone,
dial seven digit
Jacksonville number
desired

*AUTOVON Calls (AV Telephones only) OFFICIAL USE ONLY

.....dial 81, wait for
second dial tone,
dial desired AUTOVON
number

Information.....dial 82

Operator Assistance.....dial 82

Overseas calls.....BO 2305.5F paragraph 6.j.

FEDERAL TELECOMMUNICATIONS SYSTEM (FTS) FOR OFFICIAL USE ONLY

*FTS CALLS (Av Telephones only).....Dial 86, wait for second dial tone, dial desired seven digit FTS number for Automatic Off Net calling.

FTS (Operator Assisted calls).....

From Class "A" telephones.....Dial 1111
From Class "c" telephones.....Dial 1111, restricted to Gunnery Sergeants and above

FOR FURTHER DIALING INSTRUCTIONS, CONSULT YOUR FTS DIRECTORY

LEASED LINES

To MCAS, Cherry Point.....dial 1113, when operator answers, ask for Cherry Pt.

T To New Bern.....dial 1113, when operator answers, ask for New Bern via Cherry Point

To Marine Corps Auxillary Landing Field at Bogue.....dial 1113, when operator answers, ask for Bogue Field via Cherry Point

To MCAS, Beaufort, S.C.....dial 1113, when operator answers, ask for MCAS Beaufort via Cherry Pt.

To Norfolk.....dial 1113, when operator answers, ask for MAG line 38 and desired seven digit number

To Morehead City.....dial 1113, when operator answers, ask for Morehead City via Cherry Point

Port Authority.....dial (451)-1805

To Maintenance of Out of Service Equipment, Pollocksville
(MOOSE).....dial (451)-2948

To TAC Center, Langley Air Force Base.....dial 1113, when
operator answers,
ask for TAC Center,
Langley AFB via
Cherry Point

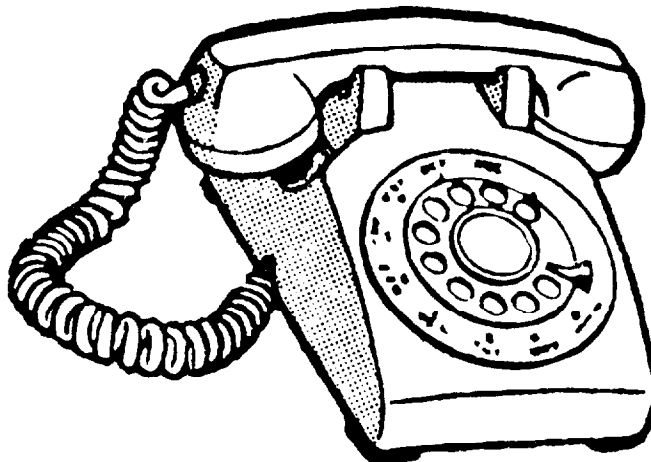
To Fort Richie, Md., Hq Marine Corps
(AV telephones Only).....dial 84, when
operator answers,
give her the telephone
number desired.

GENERAL INFORMATION

THE CAMP LEJEUNE TELEPHONE DIRECTORY IS GOVERNMENT PROPERTY. IT IS PUBLISHED FOR THE OFFICIAL USE OF PERSONNEL OF THIS BASE AND OTHER GOVERNMENT ACTIVITIES. SUBSCRIBERS IN POSSESSION OF THE DIRECTORY ARE RESPONSIBLE FOR ITS SAFE KEEPING. INFORMATION CONTAINED IN THE DIRECTORY WILL NOT BE TRANSMITTED TO ANY UNAUTHORIZED PERSON OR AGENCY.

HOW TO IMPROVE YOUR TELEPHONE SERVICE

- A. Use current Telephone Directory provided.
- B. When trouble is encountered when dialing (no ring tone, wrong number and noise on line), call Telephone Repair Desk, extension 1114.
- C. Do not leave handset off the telephone. Telephone exchange equipment is tied up unnecessarily.
- D. Do not engage operators in unnecessary conversation.
- E. Have pencil and paper available to record telephone number requested from Directory Assistance.
- F. Any complaints or information required regarding telephone service should be directed to the Base Telephone Officer, extension 2531.
- G. Do not dial Jacksonville Directory Assistance unless it is **ABSOLUTELY NECESSARY**. Consult your city directory for these numbers.



Warning

SECNAVINST 2305.10A dtd 3 Sept 69

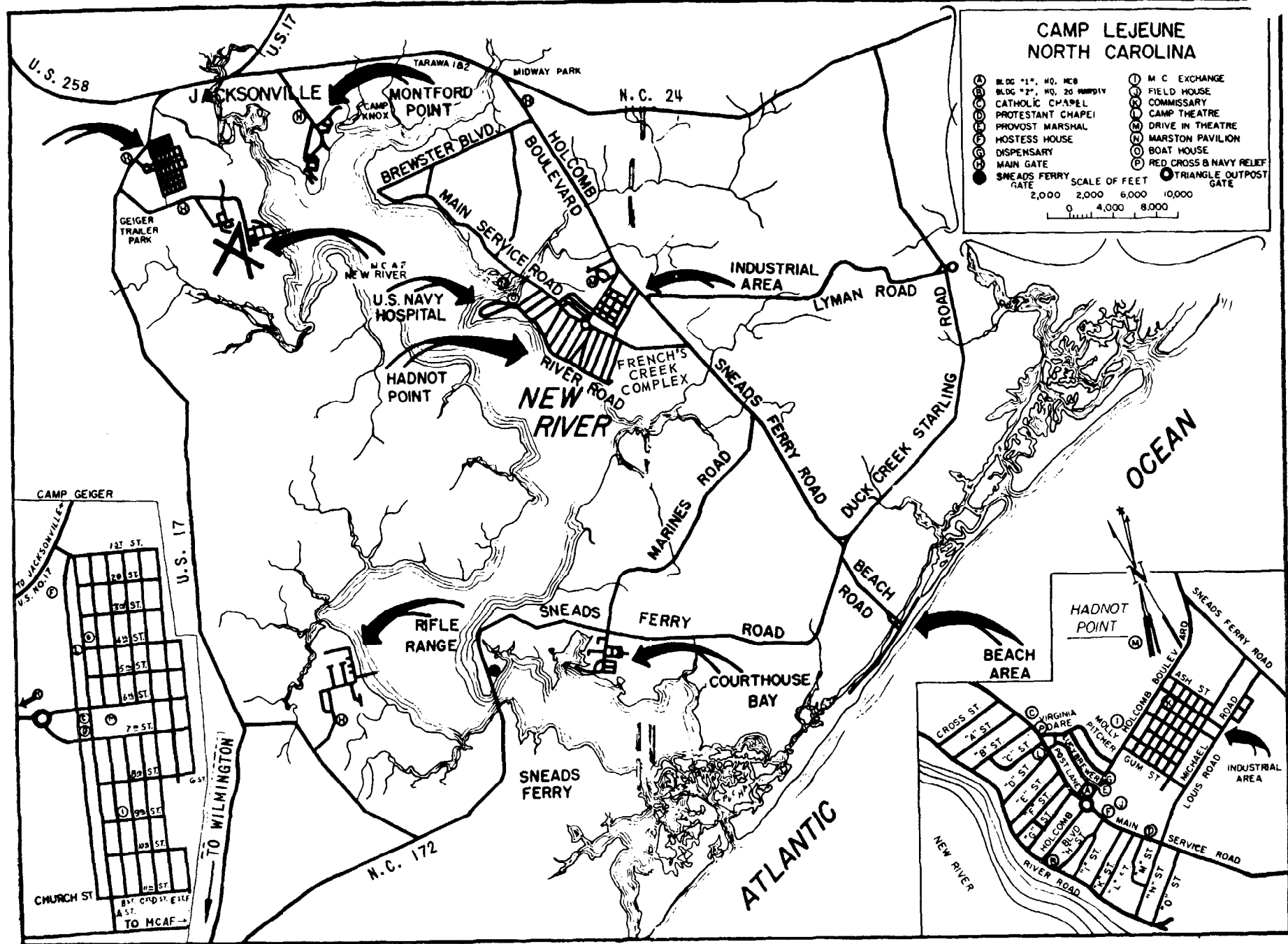
D. Communications Management Monitoring

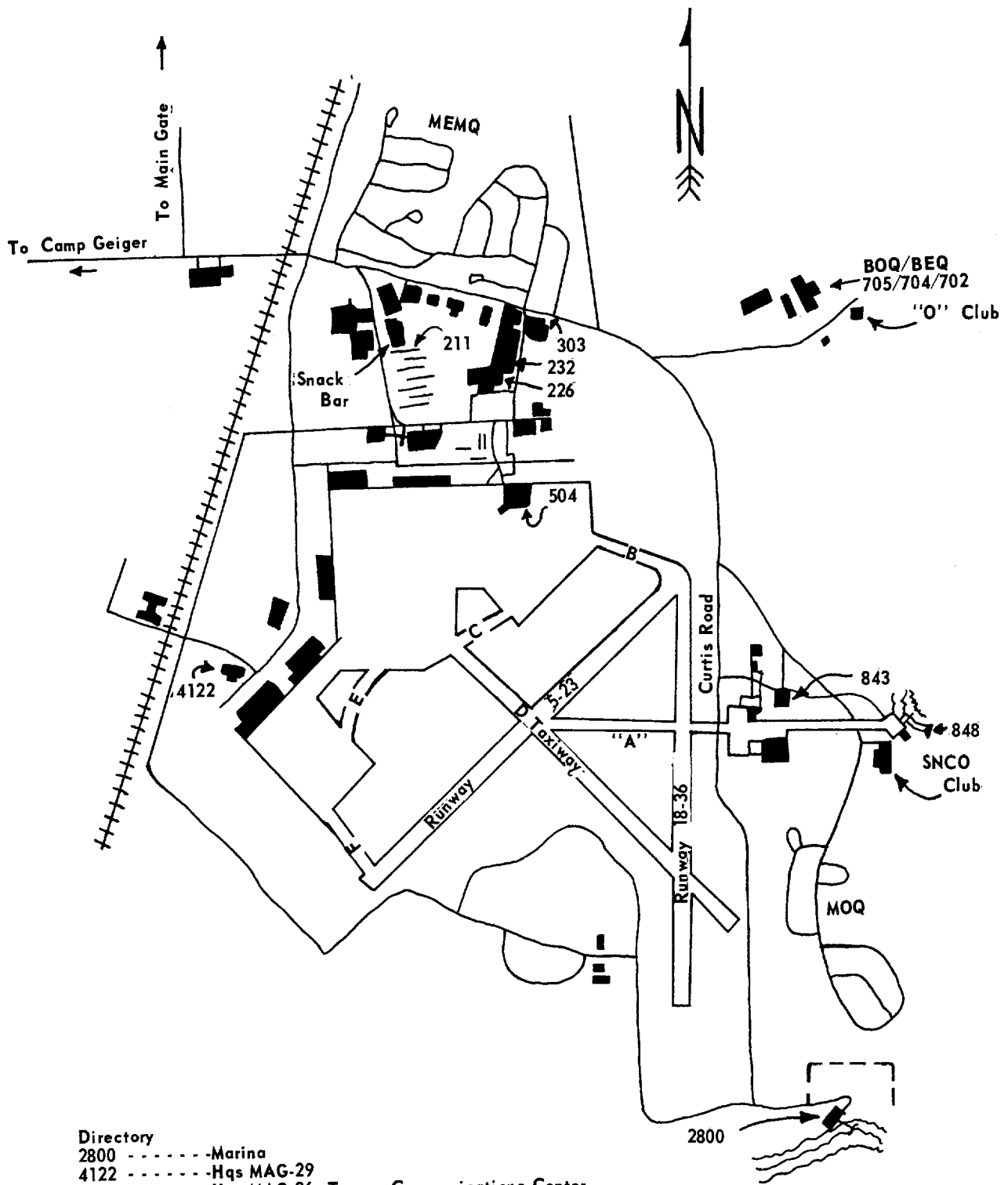
1. Telephone communications management monitoring shall be undertaken only to provide material for analyses within the DOD to determine the operational efficiency and proper use of the DOD-dedicated systems and the common user systems of the Defense Communications System.
2. Heads of DOD Components shall assure that users of DOD telephone communications systems are specifically advised through widely disseminated regulations that the communications systems are:
 - a. Provided for the transmission of official government information only; and
 - b. Subject to communications management monitoring at all times.
3. After users have been notified as outlined in paragraph 2, above, use of DOD telephone communications systems shall constitute consent to communications management monitoring.

CAMP LEJEUNE NORTH CAROLINA

⊙ BLDG "1", HQ, MCB	⊙ M C EXCHANGE
⊙ BLDG "2", HQ, 2d MARIY	⊙ FIELD HOUSE
⊙ CATHOLIC CHAPEL	⊙ COMMISSARY
⊙ PROTESTANT CHAPEL	⊙ CAMP THEATRE
⊙ PROVOST MARSHAL	⊙ DRIVE IN THEATRE
⊙ HOSTESS HOUSE	⊙ MARSTON PAVILION
⊙ DISPENSARY	⊙ BOAT HOUSE
⊙ MAIN GATE	⊙ RED CROSS & NAVY RELIEF
⊙ SNEADS FERRY GATE	⊙ TRIANGLE OUTPOST GATE

SCALE OF FEET
0 2,000 4,000 6,000 8,000





- Directory
- 2800 - Marina
 - 4122 - Hqs MAG-29
 - 504 - Hqs MAG-26, Tower, Communications Center
 - 211 - Joint Reception Center
 - 302 - Dispensary/Dental
 - 232 - Marine Exchange
 - 226 - Mess Hall
 - 843 - Operations
 - 848 - CEO/Grd. Elect.

MCAS (H) NEW RIVER



UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, North Carolina 28542

BO 2305.5F Ch 2
MAIN/FHRR/11r
17 SEP 1979

BASE ORDER 2305.5F Ch 2

From: Commanding General
To: Distribution List

Subj: Orders and Procedures for the Management of the Base Telephone System

1. Purpose. To direct pen changes to the basic Order.

2. Action

- a. Insert reference (f) - FTS User's Guide.
- b. On page 9, paragraph 15.h., line 3, change "subparagraph (g) above." to read "subparagraph (a) above."
- c. Renumber paragraphs 10 through 21 to 11 through 22.
- d. On page 6, after paragraph 9.h., insert:
 10. FEDERAL TELECOMMUNICATIONS SYSTEM
 - a. Reference (f) gives complete dialing instructions for the FTS network.
 - b. There are no telephone numbers within CONUS, Alaska, Hawaii, Puerto Rico, and Canada that cannot be accessed by utilization of the FTS network. Therefore, no commercial toll calls will be made beyond a 50-mile radius of Camp Lejeune, NC. Wilmington, NC, Havelock, NC, Morehead City, NC, and New Bern, NC are exceptions. Wilmington, NC can be accessed via AUTOVON 81-935-1420 and FTS 86-629-2111. Havelock, NC, Morehead City, NC, and New Bern, NC can be accessed via Cherry Point operator.
 - c. FTS is available and can be utilized 24 hours a day from "AV", "A", and "C" listings. The Camp Lejeune operator is available to assist the calling party in the placement of FTS calls. The only information the caller is required to know is the city and the seven digit number of the party being called. Subscribers that have "AV/A" service and desire to call after normal working hours dial 86-967-1221. This will put you in contact with the Washington, DC FTS operator. Give the operator the area code and the seven digit number of the party you are calling. Any assistance required can be obtained by dialing 1111 for the Camp Lejeune FTS operator.
 - d. AUTOVON Off-Net should be used whenever possible. If you do not know the Off-Net AUTOVON number, dial 1113 and ask the Camp Lejeune operator to assist you. If that city is not listed in the Off-Net directory, use FTS. The cost for each FTS call is \$.93. There are no charges for AUTOVON calls.
 - e. Any person making a commercial toll call will be required to reimburse the Treasurer of the United States for that call unless it is specifically approved by a Special Staff Officer/Battalion Commanding Officer. Calls not approved will be reimbursed at Building 1104, the Base Telephone Office.
 - f. Noncompliance of this order will result in loss of "AV/A" telephone service.

J. R. Friedell
J. R. FRIDELL
Chief of Staff

DISTRIBUTION: A



UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
BO 2305.5F Ch 1
MAIN/FHRR/11r
3 JAN 1979

BASE ORDER 2305.5F Ch 1

From: Commanding General
To: Distribution List

Subj: Orders and procedures for the management of the Base Telephone System

1. Purpose. To direct a pen change to the basic order.

2. Action. On page 5, paragraph 8b, line 4, delete "within five days after receipt."

J. R. Friedell
J. R. FRIDELL
Chief of Staff
Acting

DISTRIBUTION: A



UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
BO 2305.5F
MAIN/FHRF/mem
19 JUL 1978

BASE ORDER 2305.5F

From: Commanding General
To: Distribution List

Subj: Orders and procedures for the management of the Base Telephone System

Ref: (a) JCS-MOP-151 (NOTAL)
(b) OPNAVINST 2300.4A (NOTAL)
(c) OPNAVINST 2305.13 (NOTAL)
(d) MARCORSUPMAN, Vol V (NOTAL)
(e) NAVCOMPAN, Vol III (NOTAL)

Encl: (1) Telephone Service Request Format (MCBCL 2305/28)
(2) Extract from AUTOVON Operating Procedures, DGA Cir 310-70-1, Ch 1 of 24, March 1969
(3) Magneto Line Request Format (MCBCL 2305/28)

1. Purpose. To promulgate guidance and instructions pertaining to the installation, operation and maintenance of the Marine Corps Base Telephone System.

2. Cancellation. BO 2305.5E.

3. General

a. The Base Telephone System is a United States Government owned, maintained and operated telephone system managed in accordance with references (a) through (d). The telephone system provides official telephone service to all tenant commands and unofficial (reimbursable) service to family quarters at Courthouse Bay and the Rifle Range. All other government owned family quarters are provided service by Carolina Telephone and Telegraph Company.

b. The Telephone Officer is responsible to the Base Maintenance Officer for the administration and operation of the Base Telephone System to include supervision of telephone operators, approval of requests for installation and removal of telephone instruments and equipment, system maintenance and compilation of the telephone directory.

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19 JUL 1978

4. Classes of Telephone Service

a. Class "AV" (Official with AUTOVON Access). Telephones authorized for the transaction of official government business. This service provides access to the local commercial telephone system and toll charges are paid from appropriated funds. These telephones also have access to the AUTOVON network.

b. Class "A" (Official). Telephones authorized for the transaction of official government business. This service provides access to the local commercial telephone system and toll charges are paid from appropriated funds. This telephone service does not have access to the AUTOVON network.

c. Class "B" (Unofficial). Telephones provided for unofficial use and may or may not have access to the local commercial telephone system. Charges are paid from non-appropriated funds or by individual subscribers. This class is further designated as:

(1) Class B-1. Telephones installed in government owned or leased quarters for use by the designated occupant. Access to the commercial telephone system is authorized.

(2) Class B-2. Telephones installed for use of the American Red Cross and other morale, welfare and recreation activities as provided in reference (e). This class may be restricted to the base or have access to the commercial telephone system.

(3) Class B-3. Telephones installed for commercial concerns authorized to conduct business from a fixed location on the base. This authority must be in the form of a contract or permit issued by the Commanding General, Marine Corps Base. Access to the commercial telephone system is authorized.

d. Class "C" (Official Restricted). Telephones installed for the transaction of official government business but are restricted to the base.

5. Class "AV" and "A" Telephone Allocation

a. Allocation of Class "AV" and "A" telephone service is as follows:

<u>Organization</u>	<u>Assigned</u>
General Officers	As required
General Staff Sections	2 AV
Special Staff	1 AV

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<u>Organization</u>	<u>Assigned</u>
Regiments	
CO and XO	1 AV, 1 A
S-3 and S-4	1 AV jointly
Chaplain	1 A
Battalions	
CO and XO	1 AV
S-3 and S-4	1 AV jointly
Chaplain	1 A
Separate Companies	1 AV

b. Exceptions to the above policy may be submitted to the Base Telephone Officer along with appropriate justification.

6. Requests for Telephone Service

a. Requests for official telephone service (installation, removal, relocation or special equipment) will be submitted on Form MCBCL 2305/28 (Telephone Service Request). The form will be completed in triplicate and all copies forwarded to the Commanding General, Marine Corps Base, (Attn: Base Telephone Officer, Building 1104). See enclosure (1) for format. The request must be signed by the unit commander requiring the telephone service. Except for emergency service, requests must reach the Base Telephone Officer at least three working days prior to the date action is desired.

b. Requests for unofficial (Class B) telephone service will be made to the Telephone Accounts Office, Building 1104, telephone number 2531. Class B-3 subscribers will be required to post a deposit which will be returned without interest upon termination of service.

c. Class "B" telephone service will be disconnected prior to dis-possession inspection of quarters. Request for termination of service must be made to the Telephone Accounts Office three working days prior to desired termination date to enable scheduling and preparation of the final bill. Each Class "B" subscriber will check out with the Telephone Accounts Office prior to final departure from Camp Lejeune.

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d. Transfer of Class "B" telephone responsibility will not be accomplished without a signed Form MCBCL 2305/28 and payment of the reconnect charge. Telephone extensions are not allowed outside of the responsible person's assigned area.

7. Charges and Reimbursements for Class "B" Telephone Service

a. Morale, welfare, recreation activities and private parties will reimburse the Marine Corps for telephone service in accordance with reference (e). Where applicable, reimbursement will include basic charges, installation, relocation, reconnection and toll charges incurred through the use of telephone service. Checks or money orders will be made payable to the Treasurer of the United States and will be for the exact amount of the telephone bill.

b. Telephone service is considered to be provided from the date of installation until such time as a request for termination of service is received by the Base Telephone Accounts Office.

c. Class "B" subscribers will be billed each month for telephone services. Payment of telephone billings must be made prior to the 15th of the month in which the bill is received. Payment in person may be made in the Telephone Accounts Office, Building 1104, from 0830 to 1500, Monday through Friday.

d. Telephone service may be suspended if the bill is not paid during the prescribed period. Non-receipt of bills is not an acceptable excuse for delinquent accounts. To regain service, a letter requesting re-establishment of service must be addressed to the Commanding General, Marine Corps Base, Camp Lejeune (Attn: Base Telephone Officer). If approved, the person concerned will be required to pay all indebtedness plus a reconnect charge. Suspended service will be limited to two weeks.

e. Private subscribers temporarily absent from the base during a billing period will make arrangements for payment with the Telephone Accounts Office. Subscribers may request temporary disconnection of service without removal of telephone for a period of absence, not to exceed three months.

8. Class "AV" and "A" Telephone Charges

a. Long distance official telephone calls will be billed only to a Class "AV" or "A" telephone. Incoming collect calls will not be billed or accepted on a Class "C" official-restricted telephone.

b. The senior officer assigned a Class "AV" or "A" telephone will be responsible for all toll charges against that telephone number. He will ensure that adequate precautions are taken to preclude unauthorized use of Class "AV" or "A" telephones. He will be required to complete Form MCBCL 2305/2 (Official Long Distance Calls, Audit and Certification of

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Necessity) each month certifying that the use of the telephone for toll calls listed therein were necessary in the interest of the government and payment of these calls should be made from appropriated funds. The Form MCBCL 2305/2 will be certified within five days after receipt and returned to the Telephone Accounts Office. Failure to return the Toll Certification is cause for the suspension of telephone service to the subscriber. A telephone toll log will be maintained indicating all long distance calls made by the subscriber to assist in verifying the Toll Certification. Questions pertaining to telephone toll statements may be referred to Telephone Accounts, telephone number 2531.

c. Prior to placing long distance calls, subscribers should refer to the CONUS AUTOVON Off-Net Extension Directory which lists cities serviced by the AUTOVON system. Every effort should be made to use this system for official long distance calls.

d. Unofficial personal long distance calls will not be made utilizing government telephone numbers for billing.

9. AUTOVON

a. The AUTOVON (Automatic Voice Network) is the principal long-haul, voice communications network within the Defense Communications System. AUTOVON provides a world wide unsecured direct distance dialing service to authorized agencies. The purpose of AUTOVON is to handle essential command and control, operations, intelligence, logistic, diplomatic and administrative traffic.

b. The AUTOVON is limited to official communications and will be restricted to only essential calls requiring a timeliness that cannot be obtained by other means, and would stand the scrutiny afforded a commercial toll call.

c. The use of graphic, facsimile or unsecured voice-data devices are authorized only when approved by the Chiefs of the Military Services and heads of DOD agencies or activities. Voice-data, facsimile and graphic service over AUTOVON will normally not exceed a continuous transmission time of 15 minutes nor a total transmission time of one hour during normal business hours.

d. The AUTOVON is not authorized for:

(1) Use directly or indirectly by a non-appropriated fund activity provided telephone service at post, camp, station or base level.

(2) Calls within an installation, metropolitan area, or confined geographical areas where other existing government-provided local telephone service is adequate.

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(3) Off-net extension calls into the commercial system at a distant AUTOVON exchange, except where such extension has been previously approved (reference CONUS AUTOVON off-net extension directory for approved listing).

e. The AUTOVON is not secure and users are reminded that care must be exercised in accordance with established security instructions to avoid divulging or alluding to classified information.

f. AUTOVON calls should be limited to five minutes in length whenever possible. At the discretion of the Base Chief Operator, when justified by traffic conditions, routine calls may be limited to five minutes. When such limitations have been imposed, the operator may enter the line and advise callers of this limitation and request termination of the call. After one more minute, the call may be terminated without further notification.

g. Call assistance, conferencing and directory assistance for AUTOVON users can be obtained from the Information Operator by dialing telephone number 82.

h. When trouble is encountered while utilizing AUTOVON, the user should retain the circuit connection and report the trouble immediately to Telephone Repair (telephone number 1114) via another telephone.

10. Overseas Calls

a. Overseas calls will require prior approval as follows:

<u>Command</u>	<u>Authorizing Official</u>
Marine Corps Base	Chief of Staff
2d Marine Div (Rein) FMF	Chief of Staff
Force Troops/2d FSSG FMFLANT	Chief of Staff
Naval Regional Medical Center	Commanding Officer/Executive Officer
Naval Regional Dental Center	Commanding Officer/Executive Officer
Marine Corps Air Station (H) New River	Commanding Officer/Executive Officer
Marine Aircraft Group 29	Commanding Officer/Executive Officer

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Command

Marine Aircraft Group 26

Authorizing Official

Commanding Officer/Executive
Officer

b. Upon approval of an overseas call, the command will notify the Base Telephone Office (telephone number 2531) of the approval and furnish the following information:

- (1) Name of caller.
- (2) Destination of call.
- (3) Telephone number from which call will originate.

c. Individuals making calls will be instructed to limit all calls to five minutes or to be as brief as possible.

d. Calls will be placed only from telephone numbers with AUTOVON access.

e. Arrangements will normally be made during regular working hours for overseas calls. In the event of emergency, the respective Staff Duty Officer may authorize calls by dialing the operator on duty (telephone number 3400).

11. Precedence Calls

a. The Joint Uniform Telephone Communications Precedence System is directed for use by all authorized users of voice communication facilities of the Department of Defense. Since the effectiveness of the system depends upon cooperation on the part of persons authorized to employ it, users must be familiar with enclosure (2) which outlines the purpose of each level of precedence category and the types of calls which may be assigned a precedence.

b. Precedence calls can only be made from telephones with AUTOVON access.

c. To place a precedence call, the user should dial 82 and provide the following information to the switchboard operator:

- (1) Caller's name and extension.
- (2) Precedence of the call.
- (3) AUTOVON number desired.

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12. Directory Information. Commands/office supervisors are responsible for the accuracy of telephone directory information. Changes to the organizational listings will be submitted as they occur. The telephone directory will be published in September and distributed in October of each year. Any changes to be reflected in the new directory must be received prior to 1 August of each year.

13. Leased Telephone Service

a. Telephone service (paid from appropriated funds) for military activities operating outside the boundaries of Camp Lejeune is leased from the telephone company serving the area.

b. Any changes to leased service must be accomplished by separate contract. The Base Telephone Officer is the coordinator for telephone contracts. Requests for all changes will be submitted on Form MCBCL 2305/28.

14. Leased Circuits. Circuits for special purposes such as teletype will be leased or rented to "private interests" (Red Cross, Air Line and Bus Station) on an Airline Circuit Mileage basis. Qualifications for this service are outlined in paragraph 4c(3) above.

15. Field Telephone Restrictions

a. Field wire or cable will not be placed on utility poles, on any building (except as stated below) or in the way of vehicular or pedestrian traffic. In emergency situations, the Commanding General, Marine Corps Base, will allow temporary installation of field wire systems not to exceed the duration of the emergency. Requests for semi-permanent installation will be addressed to the Commanding General, Marine Corps Base (Attn: Base Telephone Officer) in duplicate with enclosures showing route, buildings and number of pairs. The duplicate copy will be endorsed and returned. If approved, the completed installation must be inspected by a representative of the Base Telephone Office.

b. Stringing of field communication wire from a tree to a building, from building to building, on trees within 300 yards of a building, or within 50 yards of an electric or communication line is prohibited, except at approved crossings and on steel messenger cable.

c. Any type field wire suspended more than three feet above the ground and crossing under an electric or telephone line will be secured to a steel messenger cable.

d. Under no circumstances will wire be suspended over or across electrical or telephone lines.

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e. The minimum distance from any fixed electric or telephone line to field communication lines will be six feet.

f. The use of overhead steam lines or fences to support wire is prohibited.

g. The use or climbing of telephone or utility poles for any purpose is restricted to Base Maintenance personnel. The Base Telephone Officer will make inspections for violations and direct immediate removal of hazardous conditions. Violations will be reported to the Commanding General. Climbing poles installed and maintained exclusively as training aids are excepted.

h. The installation of field type wire, bare wire, rubber covered cable or any temporary wire system on utility poles is prohibited except as provided for in subparagraph (g) above.

i. All ground laid wire along paved roads will be installed on the back slope of the ditch and will be removed immediately after completion of the exercise.

16. Maintenance and Preservation of Telephone Equipment

a. The Base Telephone System is maintained and operated by the Telephone Division of the Base Maintenance Department. No person, other than an authorized member of this Division, shall service, install, move, remove, or interfere with any item or facility of the Base Telephone system.

b. When tampering with Base Telephone equipment is discovered, the using unit will be notified and service immediately suspended. Requirement for restoration of service will be by letter explaining the circumstances and action taken, to the Base Telephone Officer (via appropriate Communication-Electronics Officer).

c. Telephone equipment and instruments connected to the Base Telephone System are Government property, furnished for use at Camp Lejeune. Removal of this property from its assigned area is prohibited.

d. Digging, excavating, driving posts or pilings along roads or within inhabited areas is prohibited, unless first approved by the Base Telephone Officer.

e. In the interest of acceptable service, not more than four instruments will have access to any telephone number, except 1-A Key Systems.

f. Telephone extensions will only be installed in the immediate vicinity of the main station telephone and within the same building.

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g. Telephone trouble will be reported to the Base Telephone Trouble Desk, extension 1114, which is manned continuously.

17. Magneto and Range Control Lines

a. Magneto lines can be installed in most areas (except Verona Loop). Requests for magneto lines will be submitted at least three working days in advance of the desired date (see enclosure (3) for format). Tactical call signs/switchboard code names will not be used to identify the using unit to the base switchboard operator.

b. Magneto lines are available to call MCAS Cherry Point. Every attempt to use the magneto lines should be made to alleviate unnecessary traffic on AUTOVON circuits.

c. Range control lines appear at most firing ranges and control towers. Using units will check out necessary lines at least 24 hours in advance to permit time for repair if required.

18. Subscriber Obligations. All persons using the Base Telephone System are considered subscribers. It is unlawful for a subscriber to:

a. Refuse to give up a party line for use in an emergency.

b. Make nuisance or malicious telephone calls.

c. Use credit card number to fraudulently obtain service.

d. Charge a call to another person's telephone number without consent.

19. Conservation of Telephone Service. To ensure adequate telephone service is available for assignment to requesting units, strict compliance with the following is mandatory:

a. Commanding Officers or Officers-in-Charge will ensure that only the minimum number of telephones consistent with the mission of the organization are installed.

b. Commanding Officers or Officers-in-Charge will request removal of infrequently used telephones. Particular attention will be given to removal of telephones left in vacated buildings.

c. Request for service, i.e., relocates, extensions, etc., will not be based solely upon convenience or personal preference.

20. Pay Station Telephones

a. Pay station telephones are owned, operated and maintained by the Carolina Telephone and Telegraph Company and are, by permission of the

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Commanding General, installed on the Base for convenience of the public. Misuse or abuse of these telephones will tend to restrict and deprive many people of their use.

b. The Base Telephone Officer is responsible for the coordination of all pay station telephone service on the Base, preparation of individual agreement, NAVMC 10088-SD, collection and deposit of commissions, allocation and maintenance of Government owned telephone circuits, installation, relocation, and removal of all pay station telephones located on the Base.

c. Area Commanders are responsible for the security of pay station telephones located in their respective areas. Requests for installations, relocations or removals will be made to the Commanding General, Marine Corps Base (Attn: Base Telephone Officer, Building 1104). A memorandum notification from the Base Telephone Officer to the Area Commander will be sent in cases of removal resulting from misuse of equipment and cancellation of the agreement by the telephone company.

d. Only Carolina Telephone and Telegraph Company employees will make coin collections.

21. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF, and 2d FSSG (Rein), FMFLant, and the Commanding Officers of Marine Corps Air Station (H), New River, Naval Regional Medical Center, and Naval Regional Dental Center, this Order is applicable to those Commands.


W. F. SHEEHAN
Chief of Staff

DISTRIBUTION: A

TELEPHONE SERVICE REQUEST		Submit original and 2 copies		DATE SERVICE REQUESTED																									
MCBCL 2008/88		Ref: BO 2305.5		Day, Month, Year																									
FROM: Complete Organizational Identification		NAME AND TELEPHONE NUMBER OF REQUESTOR																											
TO: COMMANDING GENERAL MARINE CORPS BASE CAMP LEJEUNE, N. C. 28542		Name, Rank and Duty Telephone Number																											
ATTN: BASE TELEPHONE OFFICER		CLASS																											
TELEPHONE WORK DETAILS, ADDITIONAL DIRECTORY AND JUSTIFICATION		INDICATE SERVICE DESIRED BY INSERTING AN X IN APPROPRIATE SPACE ABOVE. INCLUDE TELEPHONE NUMBER FOR ALL EXCEPT NEW SERVICE. IF A KEY INSTRUMENT IS REQUESTED, SHOW TELEPHONE NUMBERS TO BE REFLECTED ON THE INSTRUMENT. GIVE COMPLETE JUSTIFICATION FOR REQUESTED SERVICE.																											
PRESENT LOCATION OF EQUIPMENT		For move or remove, show bldg. number and room.		PRESENT DIRECTORY LISTING																									
PROPOSED LOCATION OF EQUIPMENT		For install or move, show bldg. number and room.		As listed in telephone directory																									
TOTAL TELEPHONES AT ACTIVITY		Indicate number of telephones in the unit or section		Indicate desired directory listing																									
SIGNATURE OF RESPONSIBLE OFFICER		DATE		ADDITIONAL SERVICES DESIRED																									
DATE		Day, Month, Year		BASE TELEPHONE OFFICE USE ONLY																									
REQUEST APPROVED BY		WORK ORDER NUMBER		CHARGES																									
MONTHLY		NONRECURRING		CONTRACT AUTHORIZATION																									
CONTRACT NO.		RENTED SERVICE CSA NO.		MAINTENANCE SERVICE CSA NO.																									
REMARKS																													
Separate requests required when more than one telephone number is involved.																													
<table border="1"> <thead> <tr> <th></th> <th>CABLE</th> <th>PAIR</th> <th>TERMINAL NO.</th> <th>LOCATION</th> <th>BLDG.</th> <th>1ST PAIR</th> <th>X CONN</th> </tr> </thead> <tbody> <tr> <td>IN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OUT</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							CABLE	PAIR	TERMINAL NO.	LOCATION	BLDG.	1ST PAIR	X CONN	IN								OUT							
	CABLE	PAIR	TERMINAL NO.	LOCATION	BLDG.	1ST PAIR	X CONN																						
IN																													
OUT																													
WORK SUPERVISOR		WORK COMPLETED BY		DATE DUE		DATE COMPLETED																							
CHIEF OPERATOR		ACC'TS CLERK		EQUIPMENT/MATERIAL USED																									
SVC ORDER CLERK		DIRECTORY CLERK																											

1

ENCLOSURE (1)

BO 2305.5F
19 JUL 1978

Extract from AUTOVON Operating Procedures, DCA Cir. 310-70-1, Ch 1, of
24 Mar 1969

1. Joint On-Call Patch Priority System. The on-call patch priorities apply to all authorized users of the DCS. Users within each precedence category will be provided service in the order requested. To the degree necessary to ensure that communications are established and maintained, technical orderwire requirements will take precedence over priority designations. Application of precedence and preemption capability is outlined as follows:

a. FLASH

(1) Application. Flash precedence is reserved for alerts, warnings, or other emergency actions having immediate bearing on national, command, or area security (e.g., Presidential use; announcement of an alert, land, air, or sea catastrophies; intelligence reports on matters lending to enemy attack; potential or actual nuclear accident or incident; implementation of services unilateral emergency action, procedures, etc.).

(2) Preemption Capability. Has precedence over any other type of on-call patch having a lower precedence. (Note: Flash call may be preempted by the application of the flash override capability available to: (1) President of the United States, Secretary of Defense and Joint Chiefs of Staff; (2) Commanders of Unified and Specified Commands when declaring either Defense Condition One or Defense Emergency; (3) CINCNORAD when declaring either Defense Condition One or Air Defense Emergency.) Circuit Preemption: Preempts any circuit with restoration priority below 1G.

b. IMMEDIATE

(1) Application. Immediate precedence is reserved for vital communications having an immediate operational effect on tactical operations; and communications directly concerning safety or rescue operations; and communications affecting the intelligence community operational role (e.g., initial vital reports of damage due to enemy action, land, sea, or air reports which must be completed from vehicles in motion such as operational mission aircraft, intelligence reports on vital actions in progress; natural disaster or wide-spread damage emergency weather reports having an immediate bearing on mission in progress; emergency use for circuit restoration; use by tactical command posts for passing immediate operational traffic, etc.).

(2) Preemption Capability. Has precedence over any other type on-call patch having a lower precedence. Circuit Preemption: Preempts any circuit with restoration priority below 1G.

BO 2305.5F
19 JUL 1978

c. PRIORITY

(1) Application. Priority precedence is reserved for calls which require prompt completion for national defense and security, the successful conduct of war or to safeguard life or property, which do not require higher precedence (e.g., reports of priority land, sea or air movement; administrative, intelligence, operational, or logistic activities if handled on a ROUTINE call). Normally, PRIORITY will be the highest precedence that may be assigned to administrative matters for which speed for handling is of paramount importance.

(2) Preemption Capability. Has precedence over any other type on-call patch having a lower precedence. Circuit Preemption: Preempts any circuit with restoration priority below 2I.

d. ROUTINE

(1) Application. Routine precedence is reserved for all other official communications.

(2) Preemption Capability. Has no precedence over any other type on-call patch. Circuit Preemption: None.

BO 2305.5F
19 JUL 1978

TELEPHONE SERVICE REQUEST

Submit original and 2 copies
Ref: BO 2305.5

DATE SERVICE REQUESTED

MCBCL 2808/28

FROM		NAME AND TELEPHONE NUMBER OF REQUESTOR			
Requesting Unit		MSgt Joe SMITH - 2845			
VIA	1.	CLASS	INSTALL	REMOVE	MOVE
		AV			
	2.	A			
		B-1			
		B-2			
		B-3			
		C			
TO		MOUNTAIN			
COMMANDING GENERAL		XX			
MARINE CORPS BASE					
CAMP LEJEUNE, N. C. 28542					
ATTN BASE TELEPHONE OFFICER					

TELEPHONE WORK DETAILS, ADDITIONAL DIRECTORY AND JUSTIFICATION

1. Date Service Required
2. Date service to be terminated
3. Location
4. Requesting Unit (if different from above)
5. Class of service desired

PRESENT LOCATION OF EQUIPMENT	PRESENT DIRECTORY LISTING
PROPOSED LOCATION OF EQUIPMENT	PROPOSED DIRECTORY LISTING
TOTAL TELEPHONES AT ACTIVITY	ADDITIONAL SERVICES DESIRED

SIGNATURE OF RESPONSIBLE OFFICER	DATE
John J. JONES, LtCol	22 Feb 78

BASE TELEPHONE OFFICE USE ONLY

REQUEST APPROVED BY	WORK ORDER NUMBER			
CHARGES		CONTRACT AUTHORIZATION		
MONTHLY	NONRECURRING	CONTRACT NO.	RENTED SERVICE CSA NO.	MAINTENANCE SERVICE CSA NO.

REMARKS

	CABLE	PAIR	TERMINAL NO.	LOCATION	BLDG.	1ST PAIR	X CONN
IN							
OUT							
WORK SUPERVISOR	WORK COMPLETED BY		DATE DUE		DATE COMPLETED		
CHIEF OPERATOR	ACCTS CLERK		EQUIPMENT/MATERIAL USED				
SYNC ORDER CLERK	DIRECTORY CLERK						

AUTOVON LISTING

Aero Systems Div - Wright-Patt AFB, Ohio....	78x-xxxx	Ellington AFB - Houston, Texas.....	954-2xxx
Operator Assistance.....	782-1110	Operator Assistance.....	954-2110
Alaska Switch - Neklason Lake, Alaska.....	371-1211	England AFB - Alexandria, La.....	683-xxxx
Altus AFB, Okla.	866-xxxx	Operator Assistance.....	683-1110
Operator Assistance.....	866-1110		
Andrews AFB, Washington, D.C.....	858-xxxx	Fairchild AFB - Spokane, Wash.....	352-xxxx
Operator Assistance.....	858-1110	Operator Assistance.....	352-1110
Anniston Army Depot, Ala.....	694-xxxx	Fifth Army - Ft Sam Houston, Tex.....	471-xxxx
Operator Assistance.....	694-1110	Operator Assistance.....	471-1110
Army Military Academy - West Point, NY.....	688-xxxx	Fifth Naval District - Norfolk, Va.....	690-xxxx
Operator Assistance.....	688-1110	Operator Assistance.....	690-0111
		First Marine Corps District - Garden City, NY..	994-9000
		First Naval District - Boston, Mass.....	955-8xxx
Beale AFB - Marysville, Calif.....	368-xxxx	Operator Assistance.....	955-8010
Operator Assistance.....	368-1110	Fort Belvoir, Va.....	354-xxxx
Bergstrom AFB - Austin, Tex.....	685-xxxx	Operator Assistance.....	354-0110
Operator Assistance.....	685-1110	Fort Benning, Ga.....	784-xxxx
Bolling AFB - Washington, DC.....	297-xxxx	Operator Assistance.....	784-0110
Operator Assistance.....	227-0101	Fort Bliss, Texas.....	97x-xxxx
Brooks AFB - San Antonio, Texas.....	240-xxxx	Operator Assistance.....	978-0831
Operator Assistance.....	240-1110	Fort Bragg, NC.....	23x-xxxx
		Operator Assistance.....	236-0311
Cameron Station - Alexandria, Va.....	284-xxxx	Fort Campbell, Ky.....	635-xxxx
Operator Assistance.....	227-0101	Operator Assistance.....	635-1110
Cannon AFB - Clovis, NM.....	681-xxxx	Fort Carson, Colo.....	691-xxxx
Operator Assistance.....	681-1110	Operator Assistance.....	691-5811
Cape Canaveral Air Force Sta, Fla.....	467-xxxx	Fort Chafee, Ark.....	962-2xxx
Operator Assistance.....	467-1110	Operator Assistance.....	962-2111
Carlisle Barracks, Pa.....	242-xxxx	Fort Devens, Mass.....	256-xxxx
Operator Assistance.....	242-4141	Operator Assistance.....	256-1110
Carswell AFB - Ft Worth, Texas.....	739-xxxx	Fort Dix, NJ.....	944-xxxx
Operator Assistance.....	739-1110	Operator Assistance.....	944-1110
Castle AFB - Merced, Calif.....	347-2XXX	Fort Eustis, Va.....	927-xxxx
Operator Assistance.....	347-1110	Operator Assistance.....	927-1116
Charleston AFB, SC.....	583-xxxx	Fort Gordon, Ga.....	780-xxxx
Operator Assistance.....	583-0111	Operator Assistance.....	780-1110
CINCLANT - Norfolk, Va.....	690-xxxx	Fort Hancock, NJ.....	938-1580
Operator Assistance.....	690-0111	Fort Hayes, Ohio.....	850-3131
Columbus AFB, Miss.....	742-7xxx	Fort Hood, Texas.....	737-2131
Operator Assistance.....	742-1110	Fort Jackson, SC.....	734-xxxx
		Operator Assistance.....	734-1110
Davis Monthan AFB - Tucson, Ariz.....	361-xxxx	Fort Knox, Ky.....	464-xxxx
Operator Assistance.....	361-1110	Operator Assistance.....	464-0111
DCA Headquarters - Arlington, Va.....	22x-xxxx	Fort Lawton, Wash.....	744-xxxx
Operator Assistance.....	227-0101	Operator Assistance.....	744-3000
DCASD - Reading, Pa.....	444-6xxx	Fort Leavenworth, Kans.....	552-xxxx
DCASR - Atlanta, Ga.....	697-9xxx	Operator Assistance.....	552-1101
Operator Assistance.....	697-9110	Fort Lee, Va.....	687-xxxx
DCASR - Chicago, Ill.....	930-xxxx	Operator Assistance.....	687-0111
Operator Assistance.....	930-1110	Fort Lewis, Wash.....	357-xxxx
Defense Depot - Ogden, Utah.....	790-7xxx	Operator Assistance.....	357-1110
Operator Assistance.....	790-7016	Fort McClellan, Ala.....	865-xxxx
Defense Gen Supply Ctr - Richmond, Va.....	695-xxxx	Operator Assistance.....	865-1110
Operator Assistance.....	695-1110	Fort McNair - Washington, DC.....	22x-xxxx
Detroit Arsenal - Warren, Mich.....	273-xxxx	Operator Assistance.....	227-0101
Operator Assistance.....	273-1101	Fort McPherson, Ga.....	588-xxxx
Dobbins AFB - Marietta, Ga.....	925-xxxx	Operator Assistance.....	588-1110
Operator Assistance.....	925-1110	Fort Meade, Md.....	923-xxxx
Dover AFB, Del.....	455-xxxx	Operator Assistance.....	923-1110
Information Operator.....	455-1110	Fort Monmouth, NJ.....	99x-xxxx
Dugway Proving Grounds, Utah.....	789-xxxx	Operator Assistance.....	992-9110
Operator Assistance.....	789-1110	Fort Monroe, Va.....	680-xxxx
Edgewood Arsenal, Md.....	584-xxxx	Operator Assistance.....	680-1110
Operator Assistance.....	584-1110	Fort Myer, Va.....	22x-xxxx
Edwards AFB, Calif.....	350-xxxx	Operator Assistance.....	227-0101
Operator Assistance.....	350-1110	Fort Polk, La.....	863-xxxx
Elgin AFB - Valpariso, Fla.....	872-1110	Operator Assistance.....	863-1110
		Fort Riley, Kans.....	856-xxxx
		Operator Assistance.....	856-1110

Ft Ritchie, Md..... 988-XXXX
 Operator Assistance..... 988-1300
 Fort Rucker, Ala..... 558-xxxx
 Operator Assistance..... 558-1110
 Fort Sam Houston, Texas..... 471-xxxx
 Operator Assistance..... 471-1110
 Fort Sill, Okla..... 639-xxxx
 Operator Assistance..... 639-7090
 Fort Stewart, Ga..... 971-xxxx
 Operator Assistance..... 971-1110
 Fort Story, Va..... 927-9xxx
 Operator Assistance..... 927-9210
 Fort Wadsworth, NY..... 938-1630

General Billy Mitchell Field, Wisc..... 786-9xxx
 Operator Assistance..... 786-9110
 Gentile AFB, Ohio..... 850-xxxx
 Operator Assistance..... 850-5111
 George AFB - Victorville, Calif..... 353-xxxx
 Operator Assistance..... 353-1110
 Greater Pittsburgh Airport, Pa..... 277-8xxx
 Operator Assistance..... 277-8011
 Grissom AFB - Peru, Ind..... 928-xxxx
 Operator Assistance..... 928-1110
 Gunter AFB - Montgomery, Ala..... 921-xxxx
 Operator Assistance..... 921-1110

Hancock Field - Syracuse, NY..... 587-9xxx
 Operator Assistance..... 587-9110
 Hanscom Field - Bedford, Mass..... 478-xxxx
 Operator Assistance..... 478-1001
 Hill AFB - Ogden, Utah..... 458-xxxx
 Operator Assistance..... 458-1110
 Homestead AFB, Fla..... 791-xxxx
 Operator Assistance..... 791-0111

Indiana Army Ammunition Plant, Ind..... 366-xxxx
 Operator Assistance..... 366-1110

Joint Switchboard, Hawaii..... 315-430-0111

Kelly AFB - San Antonio, Texas..... 94x-xxxx
 Operator Assistance..... 945-1110
 Kirtland AFB - Albuquerque, NM..... 964-xxxx
 Operator Assistance..... 964-0011

Lackland AFB - San Antonio, Texas..... 473-xxxx
 Operator Assistance..... 473-1110
 Langley AFB - Hampton, Va..... 432-xxxx
 Operator Assistance..... 432-1110
 Loring AFB - Limestone, Maine..... 920-xxxx
 Operator Assistance..... 920-1110
 Los Angeles Air Force Station, Calif..... 833-xxxx
 Operator Assistance..... 833-1110
 Operator Information..... 833-2110
 Lowry AFB - Denver, Colo..... 926-xxxx
 Operator Assistance..... 926-1110
 Luke AFB - Glendale, Ariz..... 853-xxxx
 Operator Assistance..... 853-1110
 MacDill AFB, Fla..... 968-xxxx
 Operator Assistance..... 968-1110
 March AFB - Riverside, Calif..... 947-xxxx
 Operator Assistance..... 947-1110
 Marine Corps Air Station - Beaufort, SC..... 630-1500

Marine Corps Air Station - Cherry Point, NC... 582-xxxx
 Operator Assistance..... 582-1110
 Marine Corps Air Station - El Toro, Calif..... 952-xxxx
 Operator Assistance..... 952-0111
 Marine Corps Air Station New River-Jax, NC... 486-8xxx
 Operator Assistance..... 484-1110
 Marine Corps Air Station - Yuma, Ariz..... 957-XXXX
 Operator Assistance..... 957-2011
 Marine Corps Base - Camp Lejeune, NC..... 484-xxxx
 Operator Assistance..... 484-1110
 Marine Corps Base - Camp Pendleton, Calif.... 993-xxxx
 Operator Assistance..... 993-0111
 Marine Corps Base - Quantico, Va..... 278-xxxx
 Operator Assistance..... 278-2121
 Marine Corps Base - 29 Palms, Calif..... 952-xxxx
 Operator Assistance..... 952-6000
 Marine Corps Command Center - Arlington, Va.. 725-1694
 851-3620
 Operator Assistance..... 225-7366
 Marine Corps Headquarters - Washington, D. C. 22x-xxxx
 Operator Assistance..... 227-0101
 Marine Corps Recruit Depot - Parris Island, SC. 832-xxxx
 Operator Assistance..... 832-1110
 Marine Corps Recruit Depot - San Diego, Calif. 957-xxxx
 Operator Assistance..... 957-0111
 Marine Corps Supply Center - Albany, Ga... 460-xxxx
 Operator Assistance..... 460-2011
 Marine Corps Supply Center - Barstow, Calif... 282-xxxx
 Operator Assistance..... 282-0111
 Maxwell AFB, Ala..... 875-xxxx
 Operator Assistance..... 875-1110
 McGuire AFB, NJ..... 440-xxxx
 Operator Assistance..... 440-0111
 Minot AFB, ND..... 344-xxxx
 Operator Assistance..... 344-1110
 Moody AFB - Valdosta, Ga..... 460-xxxx
 Operator Assistance..... 460-1110
 Myrtle Beach AFB, SC..... 748-xxxx
 Operator Assistance..... 748-1110

Naval Air Station - Brunswick, Maine..... 476-xxxx
 Operator Assistance..... 476-1110
 After Working Hours..... 476-2622
 Naval Air Station - Corpus Christi, Texas.... 861-xxxx
 Operator Assistance..... 861-1110
 Naval Air Station - Dallas, Texas..... 874-6xxx
 Operator Assistance..... 874-6110
 Naval Air Station - Jacksonville, Fla..... 942-xxxx
 After Working Hours..... 942-2338
 Naval Air Station - Key West, Fla..... 483-2178
 Operator Assistance..... 483-xxxx
 Naval Air Station - Lakehurst, NJ..... 624-xxxx
 Operator Assistance..... 624-1110
 Naval Air Station - Lemoore, Calif..... 949-xxxx
 Operator Assistance..... 949-4110
 10pm-6am..... 949-3360
 Naval Air Station - Memphis, Tenn..... 966-xxxx
 Operator Assistance..... 966-5111
 Naval Air Station - New Orleans, La..... 363-3xxx
 Operator Assistance..... 363-3011
 Naval Air Station - North Island, Calif..... 951-xxxx
 Operator Assistance..... 951-0111
 Naval Air Station - Patuxent River, Md..... 356-xxxx
 Operator Assistance..... 356-0111
 Naval Air Station - Pensacola, Fla..... 922-xxxx
 Operator Assistance..... 922-0111
 Naval Air Station - South Weymouth, Mass.... 948-9xxx
 After Working Hours..... 948-9011

Naval Air Station Moffett Field, Calif.....	462-xxxx	Norfolk Naval Shipyard - Portsmouth, Va.....	961-xxxx
Operator Assistance.....	462-0111	Operator Assistance.....	961-0111
10pm - 7am.....	462-5326	Norton AFB - San Bernardino, Calif.....	876-xxxx
Naval Air Station Oceana - Virginia Beach, Va.	274-xxxx	Operator Assistance.....	876-1110
Operator Assistance.....	274-1110		
Naval Air Station - Whidbey Island, Wash.....	820-xxxx	Oakland Army Base, Calif.....	864-xxxx
Operator Assistance.....	820-0111	Operator Assistance.....	864-0111
Naval Air Station - Willow Grove, Pa.....	991-xxxx	Offutt AFB - Omaha, Neb.....	271-xxxx
Operator Assistance.....	991-1110	Operator Assistance.....	271-1110
Non Duty Hours.....	991-4277	Orlando Naval Training Center, Fla.....	791-xxxx
Naval Ammunition Depot - Bangor, Wash.....	744-4xxx	Operator Assistance.....	791-4111
Operator Assistance.....	744-1110	Pacific Missile Range - Point Mugu, Calif....	351-7001
Naval Ammunition Depot Earle, NJ.....	449-1xxx	Pentagon.....	22x-xxxx
Operator Assistance.....	449-1110	PBX Operator Assistance.....	227-0101
Naval Ammunition Depot - Crane, Ind.....	482-xxxx	Picatinny Arsenal - Dover, NJ.....	880-xxxx
Operator Assistance.....	482-1000	Operator Assistance.....	880-1110
Naval Amphibian Base - Little Creek, Va.....	680-xxxx	Pope AFB, NC.....	486-xxxx
Operator Assistance.....	680-0111	Operator Assistance.....	486-1110
Naval Air Station - Fallon, Nev.....	830-xxxx		
Naval Base - Charleston, SC.....	794-xxxx	Randolph AFB - Universal City, Texas.....	487-xxxx
Operator Assistance.....	794-2000	Operator Assistance.....	487-1110
Information.....	794-4111	Redstone Arsenal - Huntsville, Ala.....	746-xxxx
Naval Base - Norfolk, Va.....	690-xxxx	Operator Assistance.....	746-0011
Operator Assistance.....	690-0111	Reese AFB - Hurlwood, Texas.....	838-xxxx
Naval Communication Station - Cheltenham, Md.	251-xxxx	Operator Assistance.....	838-1110
Operator Assistance.....	227-0101	Robins AFB - Warner Robins, Ga.....	468-xxxx
Naval Hospital - Bethesda, Md.....	29x-xxxx	Operator Assistance.....	468-1001
Operator Assistance.....	227-0101	Rock Island Arsenal, Ill.....	793-xxxx
Naval Hospital Boston - Chelsea, Mass.....	955-8xxx	Operator Assistance.....	793-1110
Operator Assistance.....	958-8010		
Naval Ordnance Plant - Louisville, Ky.....	989-5xxx	Savanna Army Depot, Ill.....	585-xxxx
Operator Assistance.....	989-5011	Operator Assistance.....	585-1110
AWH.....	989-5205	Shaw AFB - Sumter, SC.....	965-xxxx
Naval Post Graduate School - Monterey, Calif..	878-xxxx	Operator Assistance.....	965-1110
Operator Assistance.....	878-0111	Sheppard AFB - Wichita Falls, Texas.....	736-xxxx
Naval Shipyard - Portsmouth, NH.....	684-xxxx	Operator Assistance.....	736-1001
Operator Assistance.....	684-0111	Ships Parts Control Center G Mechanicsburg, Pa.	430-xxxx
Naval Station - Charleston, SC.....	794-xxxx	Operator Assistance.....	430-4410
Operator Assistance.....	794-2000	AWH.....	430-2691
Information.....	794-4111	Sixth Naval District - Charleston, SC.....	794-xxxx
Naval Station - Key West, Fla.....	483-2178	Operator Assistance.....	794-2000
Naval Station - Mayport, Fla.....	960-5xxx	Information.....	794-4111
Operator Assistance.....	960-5011		
Naval Station - Newport, RI.....	948-xxxx	Third Naval District - New York, NY.....	456-xxxx
Operator Assistance.....	948-1110	Operator Assistance.....	456-2011
Naval Station - San Diego, Calif.....	958-xxxx	Duty Officer AWH.....	456-2217
Operator Assistance.....	958-0111	Travis AFB, Calif.....	837-xxxx
Naval Station - Treasure Island, Calif.....	864-xxxx	Operator Assistance.....	837-1110
Operator Assistance.....	864-0111	Twelfth Naval District - San Francisco, Calif..	933-8xxx
1800 - 0630.....	864-6233	Operator Assistance.....	933-8011
Naval Submarine Base - New London, Conn....	241-xxxx	Tyndall AFB - Panama City, Fla.....	970-xxxx
Operator Assistance.....	241-0111	Operator Assistance.....	970-1110
Naval Supply Center - Oakland, Calif.....	836-xxxx		
Operator Assistance.....	836-0111	U S Naval Academy - Annapolis, Md.....	281-xxxx
Naval Support Activity - Philadelphia, Pa.....	443-xxxx	Operator Assistance.....	281-0111
Operator Assistance.....	443-0111	Vance AFB - Enid, Okla.....	962-7xxx
Naval Training Center - Great Lakes, Ill.....	792-xxxx	Operator Assistance.....	962-7110
Operator Assistance.....	792-2000	Vint Hill Farms - Warrenton, Va.....	249-xxxx
Naval Underwater Systems Center, Conn.....	636-xxxx	Operator Assistance.....	249-0111
Operator Assistance.....	636-0111	Westover AFB - Chicopee, Mass.....	589-xxxx
Naval Weapons Station - Concord, Calif.....	253-5111	Operator Assistance.....	589-1110
Nellis AFB - Las Vegas, Nev.....	682-xxxx	White House - Washington, DC.....	231-1467
Operator Assistance.....	682-1800		
Newark Air Force Station, Ohio.....	580-xxxx		
Operator Assistance.....	580-1110		
Niagara Falls Municipal Airport, NY.....	489-3xxx		
Operator Assistance.....	489-3011		
Naval Air Station - Glenview, Ill.....	932-xxxx		
Operator Assistance.....	932-0111		

Williams AFB - Chandler, Ariz.....	474-xxxx
Operator Assistance.....	474-1011
Yakima Firing Center, Wash.....	355-8xxx
Operator Assistance.....	355-8100
Yorktown Naval Weapons Station, Va.....	953-xxxx
Operator Assistance.....	953-0111
Yuma Proving Grounds, Ariz.....	899-xxxx
Operator Assistance.....	899-1110
AWH.....	899-2020

812-854-1432
1517

1432
1517

NWSC →
Crane
AV 482-1000

AUTOVON OFF-NET DIRECTORY

ALABAMA

Anniston - Army Depot..... 694-1110
 Ft McClellan..... 865-1110
 Birmingham - ANG..... 694-2210
 Daleville - Ft Rucker..... 558-1110
 Echo - Ft Rucker..... 558-1110
 Enterprise - Ft Rucker..... 558-1110
 Headland - Ft Rucker..... 558-1110
 Huntsville - Redstone Arsenal..... 746-0011
 Jacksonville - Army Depot..... 694-1110
 Midland City - Ft Rucker..... 558-1110
 Montgomery - Gunther AFB..... 921-1110
 Maxwell AFB..... 875-1110
 Newton - Ft Rucker..... 558-1110
 Ozark - Ft Rucker..... 558-1110
 Phoenix City - Ft Benning..... 784-0110
 Pinckard - Ft Rucker..... 558-1110
 Prattville - Maxwell AFB..... 875-1110
 Seale - Ft Benning..... 784-0110
 Wetumpka - Maxwell AFB..... 875-1110

ARIZONA

Apache Junction - Williams AFB..... 474-1011
 Avondale - Luke AFB..... 853-1110
 Cashion - Luke AFB..... 853-1110
 Chandler - Williams AFB..... 474-1011
 El Mirage - Luke AFB..... 853-1110
 Flagstaff - Navajo Army Depot..... 790-1110
 Glendale - Luke AFB..... 853-1110
 Goodyear - Luke AFB..... 853-1110
 Higley - Williams AFB..... 474-1011
 Litchfield Park - Luke AFB..... 853-1110
 Mather - Williams AFB..... 474-1011
 Mesa - Williams AFB..... 474-1011
 Peoria - Luke AFB..... 853-1110
 Phoenix - Luke AFB..... 853-1110
 Williams AFB..... 474-1011
 San Lois - MC Air Station..... 951-3011
 Scottsdale - Williams AFB..... 474-1011
 Sierra Vista - Ft Huachuca..... 879-1110
 Somerton - MC Air Station..... 951-3011
 Sun City - Luke AFB..... 853-1110
 Surprise - Luke AFB..... 853-1110
 Tempe - Williams AFB..... 474-1011
 Tolleson - Luke AFB..... 853-1110
 Tucson - Davis Monthan AFB..... 361-1110
 Youngstown - Luke AFB..... 853-1110
 Yuma - MC Air Station..... 951-3011
 Proving Grounds..... 899-1110

ARKANSAS

Barling - Ft Chaffee..... 962-2111
 Blytheville - Blytheville AFB..... 637-1110
 Dell - Blytheville AFB..... 637-1110
 Ft Smith - Ft Chaffee..... 962-2111
 Gosnell - Blytheville AFB..... 637-1110
 Jacksonville - Little Rock AFB..... 731-1110
 Little Rock - Little Rock AFB..... 731-1110
 Texarkana - Red River Depot..... 829-4110
 Van Buren - Ft Chaffee..... 962-2111

CALIFORNIA

Adelanto - George AFB..... 353-1110
 Alhambra - LA AFS..... 833-1110
 Altadena - LA AFS..... 833-1110
 Anaheim - El Toro..... 952-0111
 Apple Valley - George AFB..... 353-1110
 Arcadia - LA AFS..... 833-1110
 Artesia - LA AFS..... 833-1110
 Atwater - Castle AFB..... 347-1110
 Azusa - LA AFS..... 833-1110
 Baldwin Park - LA AFS..... 833-1110
 Barstow - LA AFS..... 833-1110
 Bell - LA AFS..... 833-1110
 Bellflower - LA AFS..... 833-1110
 Bell Garden - LA AFS..... 833-1110
 Beverly Hills - LA AFS..... 833-1110
 Bloomington - Norton AFB..... 876-1110
 Boron - Edwards AFB..... 350-1110
 Bradbury - LA AFS..... 833-1110
 Brentwood - LA AFS..... 833-1110
 Burbank - LA AFS..... 833-1110
 Calimesa - Norton AFB..... 876-1110
 Camarillo - Nav Const Bn..... 360-4001
 Canoga - LA AFS..... 833-1110
 Carmel - Ft Ord..... 929-1110
 Carlsbad - Camp Pendleton..... 993-0111
 Camichael - Mather AFB..... 828-1110
 Carson - Ft MacArthur..... 972-1110
 Chatsworth - LA AFS..... 833-1110
 China Lake - China Lake Nav Ord..... 245-9011
 Chula Vista - NAS..... 959-0111
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 East Tawas – Wortsmith AFB..... 623-1110
 Grand Rapids – DCASD..... 741-8011
 Gwinn – Sawyer AFB..... 472-1110
 Ishpeming – Sawyer AFB..... 472-1110
 Marquette – Sawyer AFB..... 472-1110
 Negaunee – Sawyer AFB..... 472-1110
 Oscoda – Wortsmith AFB..... 623-1110
 Skandia – Sawyer AFB..... 472-1110
 Tawas City – Wortsmith AFB..... 623-1110

MINNESOTA

Cloquet – Duluth AFB..... 825-0011
 Duluth – Duluth AFB..... 825-0011
 Minneapolis – ANG..... 825-5110
 Proctor – Duluth AFB..... 825-0011
 Scanlon – Duluth AFB..... 825-0011
 St Paul – ANG..... 825-5110
 Superior – Duluth AFB..... 825-0011

MISSISSIPPI

Biloxi – Keesler AFB..... 868-1110
 Caledonia – Columbus AFB..... 742-1110
 Columbus – Columbus AFB..... 742-1110
 Gulfport – Keesler AFB..... 868-1110
 Hansboro – Keesler AFB..... 868-1110
 Lyman – Keesler AFB..... 868-1110
 Ocean Springs – Keesler AFB..... 868-1110

MISSOURI

Bellview – Scott AFB..... 638-1110
 Freeburg – Scott AFB..... 638-1110
 Grandview – Richards-Gebaur AFB..... 465-1110
 Independence – Richards-Gebaur AFB..... 465-1110
 Kansas City – Whiteman AFB..... 975-1110
 Knobnoster – Whiteman AFB..... 975-1110
 Maryland Heights – Army Depot..... 693-1110
 Roberts – Ft Leonard Wood..... 581-0110
 Sedalia – Whiteman AFB..... 975-1110
 State of Missouri – Chanute AFB..... 862-1110
 Warrenburg – Whiteman AFB..... 975-1110
 Waynesville – Ft Leonard Wood..... 581-0110

MONTANA

Great Falls – Malmstrom AFB..... 632-1110

NEBRASKA

Bellview – Offutt AFB..... 271-1110
 Council Bluffs – Offutt AFB..... 271-1110

La Vista – Offutt AFB..... 271-1110
 Omaha – Offutt AFB..... 271-1110
 Ralston – Offutt AFB..... 271-1110

NEVADA

Boulder City – Nellis AFB..... 682-1800
 Fallon – Nav Air Station..... 830-2110
 Henderson – Nellis AFB..... 682-1800
 Las Vegas – Nellis AFB..... 682-1800

NEW HAMPSHIRE

Bedford – NH Sat Trk Station..... 881-1550
 Killery – Pease AFB..... 852-1110
 Manchester – NH Sat Trk Station..... 881-1550
 Memarrick – NH Sat Trk Station..... 881-1550
 New Castle – Nav Shipyard..... 684-0111
 Portsmouth – Nav Shipyard..... 684-0111
 Pease AFB..... 852-1110
 Rye Beach – Nav Shipyard..... 684-0111
 Pease AFB..... 852-1110
 Suncook – NH Sat Trk Station..... 881-1550
 York – Pease AFB..... 852-1110

NEW JERSEY

All Cities – Ft Dix..... 944-1220

NEW MEXICO

Alamagorda – Holloman AFB..... 867-1110
 Claudcroft – Holloman AFB..... 867-1110
 Clovis – Cannon AFB..... 681-1110
 Farewell – Cannon AFB..... 681-1110
 La Cruces – Whitesands Msl Range..... 258-2211
 Mesilla – Whitesands Msl Range..... 258-2211
 Organ – Whitesands Msl Range..... 258-2211
 Portales – Cannon AFB..... 681-1110
 Texico – Cannon AFB..... 681-1110
 Tularosa – Holloman AFB..... 867-1110

NEW YORK

Amber – Hancock Field..... 587-9110
 Amityville – DCASD..... 994-9000
 Baldwinsville – Hancock Field..... 587-9110
 Bohemia – DCASD..... 994-9000
 Bridgeport – Hancock Field..... 587-9110
 Bronx – DCASD..... 994-9000
 Brooklyn – Ft Hamilton..... 232-1110
 Nav Dist..... 456-2011
 Buffalo – Niagra Mun Airport..... 489-3011
 Farmingdale – DCASD..... 994-9000
 Fayette – Seneca Depot..... 489-5110
 Fayetteville – Hancock Field..... 587-9110
 Garden City – DCASD..... 994-9000
 Geneva – Seneca Depot..... 489-5110
 Hempstead – DCASD..... 994-9000
 Highland Falls – West Point..... 688-1110
 Huntington – DCASD..... 994-9000
 Jamaica – Nav Station..... 456-2011
 Jordan – Hancock Field..... 587-9110
 Liverpool – Hancock Field..... 587-9110
 Lynbrook – DCASD..... 994-9000

Manhattan – DCASD.....	994-9000
Ft Hamilton.....	232-1110
Manlius – Hancock Field.....	587-9110
Morrisonville – Plattsburg AFB.....	689-1110
Newburgh – West Point.....	688-1110
New Woodstock – Hancock Field.....	587-9110
New York City – Ft Hamilton.....	232-1110
Niagra Falls – Niagra Mun Airport.....	489-3011
North Bellmore – DCASD.....	994-9000
Olean – Niagra Mun Airport.....	489-3011
Ovid – Seneca Depot.....	489-5110
Peru – Plattsburg AFB.....	689-1110
Plattsburg – Plattsburg AFB.....	689-1110
Poughkeepsie – West Point.....	688-1110
Queens – DCASD.....	994-9000
Richmond – DCASD.....	994-9000
Rochester – Seneca Depot.....	489-5110
Rome – Griffiss AFB.....	587-1110
Romulus – Seneca Depot.....	489-5110
Skaneateles – Hancock Field.....	587-9110
St Albans – Nav Station.....	456-2011
State of New York – DCASD.....	994-9000
Syracuse – Hancock Field.....	587-9110
Tarrytown – Ft Hamilton.....	232-1110
Tonawanda – Niagra Mun Airport.....	489-3011
Utica – Griffiss AFB.....	587-1110
Waterloo – Seneca Depot.....	489-5110
Watertown – Ft Drum.....	341-3011
West Point – West Point.....	688-1110

NORTH CAROLINA

Carolina Beach – MTMTS.....	935-1420
Cherry Point – Marine Corps Air Station.....	582-1110
Edenton – Coast Guard.....	723-3390
Elizabeth City – Coast Guard.....	723-3390
Faison – Seymour Johnson AFB.....	488-1110
Fayetteville – Pope AFB.....	486-1110
Ft Bragg.....	236-0311
Fremont – Seymour Johnson AFB.....	488-1110
Goldboro – Seymour Johnson AFB.....	488-1110
Grantham – Seymour Johnson AFB.....	488-1110
Havelock – Marine Corps Air Station.....	582-1110
Jacksonville – Camp Lejeune.....	484-1110
Long Beach – MTMTS.....	935-1420
Morehead City – Marine Corps Air Sta.....	582-1110
Moss Hill – Seymour Johnson AFB.....	488-1110
Mount Olive – Seymour Johnson AFB.....	488-1110
New Bern – Marine Corps Air Sta.....	582-1110
Newport – Marine Corps Air Station.....	582-1110
Pikeville – Seymour Johnson AFB.....	488-1110
Research Triangle Pk – Coast Guard.....	723-3390
Richlands – Camp Lejeune.....	484-1110
Scott Hill – MTMTS.....	935-1420
Spring Lake – Pope AFB.....	486-1110
Wilmington – MTMTS.....	935-1420

NORTH DAKOTA

Bismarck – NG.....	871-1551
Emerado – Grand Forks AFB.....	362-1110
Grand Forks – Grand Forks AFB.....	362-1110
Mandan – Mandan.....	871-1551
Minot – Minot AFB.....	344-1110

OHIO

Austintown – Youngstown Mun Airport.....	346-9211
Bellbrook – Wright Patterson AFB.....	782-1110
Conneaut – Youngstown Mun Airport.....	346-9211
Campbell – Youngstown Mun Airport.....	346-9211
Canfield – Youngstown Mun Airport.....	346-9211
Chapman – Youngstown Mun Airport.....	346-9211
Columbus – Rickenbacker AFB.....	950-1110
Dayton – Wright Patterson AFB.....	782-1110
Ellsworth – Youngstown Mun Airport.....	346-9211
Fairborn – Wright Patterson AFB.....	782-1110
Girard – Youngstown Mun Airport.....	346-9211
Grandville – Newark Air Force Station.....	580-1110
Greenfield – Youngstown Mun Airport.....	346-9211
Holland – Youngstown Mun Airport.....	346-9211
Hubbard – Youngstown Mun Airport.....	346-9211
Leavittsburgh – Youngstown Mun Arpt.....	346-9211
Lordstown – Youngstown Mun Airport.....	346-9211
Lowellville – Youngstown Mun Airport.....	346-9211
Mansfield – ANG.....	889-1520
McDonald – Youngstown Mun Airport.....	346-9211
New Springfield – Youngstown Mun Airport.....	346-9211
North Jackson – Youngstown Mun Airport.....	346-9211
North Lima – Youngstown Mun Airport.....	346-9211
North Middleton – Youngstown Mun Airport.....	346-9211
Poland – Youngstown Mun Airport.....	346-9211
Springfield – ANG.....	889-1520
Struthers – Youngstown Mun Airport.....	346-9211
Troutwood – Wright Patterson AFB.....	782-1110
Warren – Youngstown Mun Airport.....	346-9211
Youngstown – Youngstown Mun Airport.....	346-9211

OKLAHOMA

Ada – Kelly AFB.....	945-1110
Altus – Altus AFB.....	866-1110
Arkoma – Ft Chaffee.....	962-2111
Bethany – Tinker AFB.....	735-1110
Breckinridge – Vance AFB.....	962-7110
Briton – Tinker AFB.....	735-1110
Carrier – Vance AFB.....	962-7110
Del City – AFS.....	735-9011
Edmond – Tinker AFB.....	735-1110
Enid – Vance AFB.....	962-7110
Fairmount – Vance AFB.....	962-7110
Headrick – Altus AFB.....	866-1110
Hillsdale – Vance AFB.....	962-7110
Jenks – ANG.....	883-3720
Krimlan – Vance AFB.....	962-7110
Lawton – Ft Sill.....	639-7090
McAlister – Nav Ammo Depot.....	956-6011
Mid-West City – Tinker AFB.....	735-1110
Moore – Tinker AFB.....	735-1110
Mustang – Tinker AFB.....	735-1110
Norman – Tinker AFB.....	735-1110
Oklahoma City – Tinker AFB.....	735-1110
ANG.....	883-3720
Piedmont – Tinker AFB.....	735-1110
Pocola – Tinker AFB.....	735-1110
Tulsa – ANG.....	956-5297
Woukomis – Vance AFB.....	962-7110
Yukon – Tinker AFB.....	735-1110

OREGON

Beaver Creek – Portland Air Base.....	891-1701
Beaverton – Portland Air Base.....	891-1701

Burlington – Portland Air Base..... 891-1701
 Coos Bay – Nav Fac..... 355-2011
 Damascus – Portland Air Base..... 891-1701
 Eagle Creek – Portland Air Base..... 891-1701
 Estacada – Portland Air Base..... 891-1701
 Gresham – Portland Air Base..... 891-1701
 Hillsboro – Portland Air Base..... 891-1701
 Keno – Kingsley AFB..... 896-1670
 Klamath Falls – Kingsley AFB..... 896-1670
 Lake Oswego – Portland Air Base..... 891-1701
 North Bend – Kingsley AFB..... 896-1670
 Nav Fac..... 355-2011
 Oregon City – Portland Air Base..... 891-1701
 Portland – Portland Air Base..... 891-1701
 Sandy – Portland Air Base..... 891-1701
 Tigord – Portland Air Base..... 891-1701
 Vancouver – Portland Air Base..... 891-1701

PENNSYLVANIA

Annville – Tobyhanna Depot..... 247-9110
 Blue Ridge Summit – Ft Ritchie..... 988-1300
 Boiling Springs – Carlisle Brks..... 242-4141
 Carlisle – Carlisle Brks..... 242-4141
 Fairfield – Ft Ritchie..... 988-1300
 Gettysburg – Ft Ritchie..... 988-1300
 Greentown – Tobyhanna Depot..... 247-9110
 Harrisburg – Ft Ritchie..... 988-1300
 Nav Ship Ctr..... 430-4110
 Kulpmont – Tobyhanna Depot..... 247-9110
 Lewisberry – Nav Ship Ctr..... 430-4110
 Mechanicsburg – Nav Ship Ctr..... 430-4110
 Mt Holly Springs – Carlisle Brks..... 430-4110
 Mt Home – Tobyhanna Depot..... 247-9110
 Newville – Carlisle Brks..... 242-4141
 Scranton – Tobyhanna Depot..... 247-9110
 State of Penn – Tobyhanna Depot..... 247-9110
 Stroudsburg – Tobyhanna Depot..... 247-9110
 Tobyhanna – Tobyhanna Depot..... 247-9110
 Waynesboro – Ft Ritchie..... 988-1300
 Wilkes Barre – Tobyhanna Depot..... 247-9110

SOUTH CAROLINA

Beaufort – Parris Island..... 832-1110
 Charleston – Charleston AFB..... 583-0111
 Nav Dist..... 794-2000
 Clinton – Shaw AFB..... 965-1110
 Columbia – Ft Jackson..... 734-1110
 Conway – Myrtle Beach AFB..... 748-1110
 Eastover – Ft Jackson..... 734-1110
 Gaffney – Shaw AFB..... 965-1110
 Isle of Palms – Charleston AFB..... 583-0111
 Lexington – Ft Jackson..... 734-1110
 Mayesville – Shaw AFB..... 965-1110
 Mt Pleasant – Charleston AFB..... 583-0111
 Myrtle Beach – Myrtle Beach AFB..... 748-1110
 Oakdale – Shaw AFB..... 965-1110
 Parris Island – Marine Base..... 832-1110
 Pinewood – Shaw AFB..... 965-1110
 Pocalla – Shaw AFB..... 965-1110
 Spartanburg – Shaw AFB..... 965-1110
 Statesburg – Shaw AFB..... 965-1110
 Summerville – Charleston AFB..... 583-0111
 Sumter – Shaw AFB..... 965-1110
 Waterboro – Shaw AFB..... 965-1110

SOUTH DAKOTA

Rapid City – Ellsworth AFB..... 747-1110
 Sioux Falls – ANG..... 939-7210

TENNESSEE

All Cities – Arnold AFB..... 882-1520

TEXAS

Abilene – Dyess AFB..... 461-1110
 Archer City – Sheppard AFB..... 736-1061
 Austin – Bergstrom AFB..... 685-1110
 Burkburnett – Sheppard AFB..... 736-1001
 Camp Mabry – Bergstrom AFB..... 685-1110
 Charlie – Sheppard AFB..... 736-1001
 Copperas Cove – Ft Hood..... 737-2131
 El Paso – Ft Bliss..... 978-0831
 Euless – Carswell AFB..... 739-1110
 Fort Killeen – Ft Hood..... 737-2131
 Fort Worth – Carswell AFB..... 739-1110
 Hamby – Dyess AFB..... 461-1110
 Harker Heights – Ft Hood..... 737-2131
 Hawley – Dyess AFB..... 461-1110
 Henrietta – Sheppard AFB..... 736-1001
 Holiday – Sheppard AFB..... 736-1001
 Holly – Dyess AFB..... 461-1110
 Hot Springs – Kelly AFB..... 945-1110
 Hurlwood – Reese AFB..... 838-1110
 Iowa Park – Sheppard AFB..... 736-1001
 Killeen – Ft Hood..... 737-2131
 Lubbock – Reese AFB..... 838-1110
 Potosi – Dyess AFB..... 461-1110
 Red Water – Red River Army Depot..... 829-4110
 San Angelo – Goodfellow AFB..... 477-2011
 San Antonio – Kelly AFB..... 945-1110
 Lackland AFB..... 473-1110
 Brooks AFB..... 240-1110
 Randolph AFB..... 487-1110
 Seabrook – Ellington AFB..... 954-2110
 Texarkana – Red River Army Depot..... 487-1110
 Universal City – Randolph AFB..... 487-1110
 Wichita Falls – Sheppard AFB..... 736-1001

UTAH

Bountiful – Hill AFB..... 458-1110
 Clearfield – Hill AFB..... 458-1110
 Kaysville – Hill AFB..... 458-1110
 Layton – Hill AFB..... 458-1110
 Ogden – Hill AFB..... 458-1110
 Salt Lake City – Hill AFB..... 458-1110
 Army Depot..... 790-1110
 Tooele – Army Depot..... 790-1110

VIRGINIA

Alexandria – Ft Belvoir..... 354-0110
 Arlington – Ft Belvoir..... 354-0110
 Blacksburg – Radford Ammo Plant..... 931-1110
 Bowling Green – Ft Hill..... 934-8110
 Chesapeake – Ft Story..... 927-9210
 Chester – Ft Lee..... 687-0111
 Chesterfield – Def Sup Ctr..... 695-1110
 Christiansburg – Radford Ammo Plant..... 931-1110

Dublin - Radford Ammo Plant.....	931-1110
Fairway - Ft Belvoir.....	354-0110
Falls Church - Ft Belvoir.....	354-0110
Hampton - Ft Monroe.....	680-1110
Ft Eustis.....	927-1110
Langley AFB.....	432-1110
Henrico County - Def Sup Ctr.....	695-1110
Hopewell - Ft Lee.....	687-0111
Ladysmith - Ft Hill.....	934-8110
McLean - Ft Belvoir.....	354-0110
Milford - Ft Hill.....	934-8110
Newport News - Ft Eustis.....	927-1110
Ft Monroe.....	680-1110
Langley AFB.....	432-1110
Norfolk - Ft Story.....	927-9210
Navy Base.....	690-0111
Petersburg - Ft Lee.....	687-0111
Port Royal - Ft Hill.....	934-8110
Portsmouth - Ft Story.....	927-9210
Radford - Radford Army Plant.....	931-1110
Richmond - Def Sup Ctr.....	695-1110
Sparta - Ft Hill.....	934-8110
Vienna - Ft Belvoir.....	354-0110
Virginia Beach - Ft Story.....	927-9210
Warrenton - Vint Hill Farms.....	249-0111
Williamsburg - Ft Eustis.....	927-1110
York County - Ft Eustis.....	927-1110
Yorktown - Ft Eustis.....	927-1110

WASHINGTON

Clearlake - Fairchild AFB.....	352-1110
Coupeville - Whidbey Island NAS.....	820-0111
Oak Harbour - Whidbey Island NAS.....	820-0111
Olympia - Ft Lewis.....	357-1110
Puyallup - Ft Lewis.....	357-1110
Spokane - Fairchild AFB.....	352-1110
Tacoma - Ft Lewis.....	357-1110
McChord AFB.....	976-1110
Yakima - Ft Lewis.....	357-1110

WASHINGTON D. C.

Army Switch.....	851-3350
Ft Belvoir.....	354-0110
Ft Ritchie.....	988-1300

WISCONSIN

All Cities - Ft McCoy.....	280-1110
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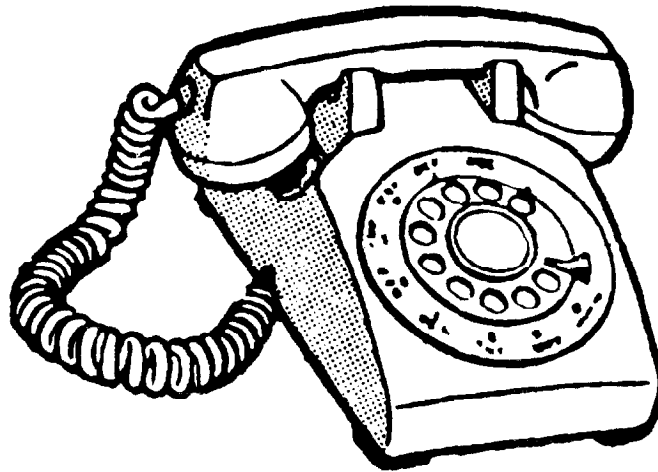
WYOMING

Cheyenne - Warren AFB.....	481-1110
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IS YOUR LISTING CORRECT?

BASE ORDER 2305.F Requires all COMMANDS

to submit DIRECTORY changes as they occur!



The accuracy of this directory is dependent on the submission of correct information by you and your organization, by letter to the BASE TELEPHONE OFFICER, Your cooperation is appreciated.

For Directory Information Call 1115

FTS

The below listed area codes are direct dial locations.
To reach numbers in any of these areas, you dial
86—the area code—and the seven digit number:

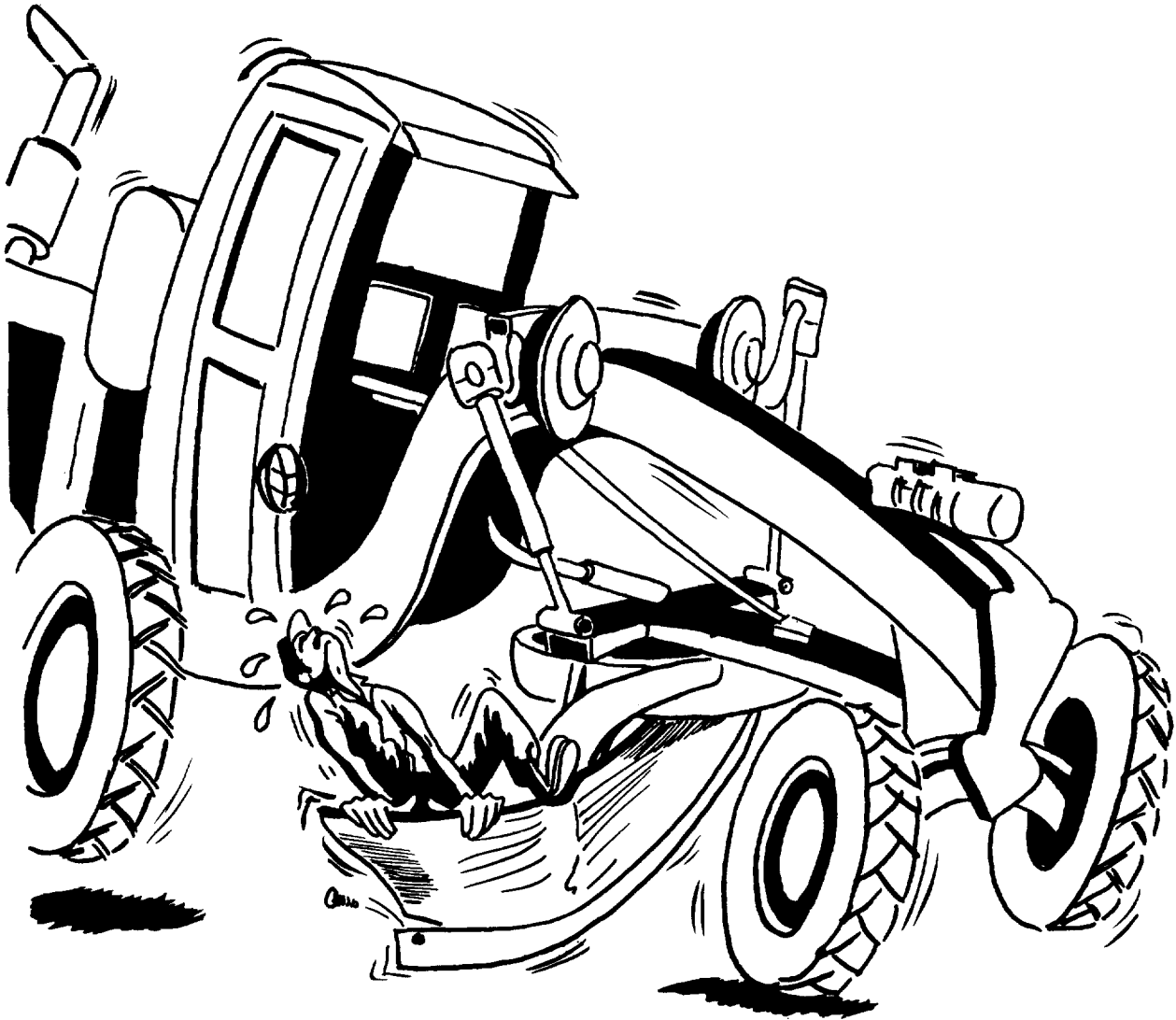
- 202
- 212
- 213
- 215
- 216
- 303
- 312
- 313
- 316
- 319
- 404
- 408
- 413
- 415
- 515
- 516
- 601
- 617
- 712
- 713
- 801
- 904
- 912
- 913

All other areas can be reached by dialing
the below listed numbers.

Alabama.....	229-1000
Alaska	
For dialing instructions Dial 1111	
Arizona.....	261-3900
Arkansas.....	740-5011
California	
Within area codes 714 and 805.....	798-2000
Within area codes 209, 707, and 916.....	556-9000
Colorado.....	327-0111
Connecticut.....	244-2000
Delaware.....	487-6011
Florida.....	946-2011
Hawaii	
For dialing instructions Dial 1111	
Idaho.....	554-1111
Illinois	
Within area codes 217, 309, 618, 815.....	353-4401
Indiana.....	331-7000
Kentucky.....	352-5011
Louisiana.....	682-6211
Maine.....	833-3131

Maryland.....	922-3311
Michigan.....	226-6000
Minnesota.....	725-4242
Mississippi.....	490-4211
Missouri.....	758-7212
Montana.....	585-5011
Nebraska.....	864-1221
Nevada.....	598-6011
New Hampshire.....	834-7011
New Jersey.....	341-3000
New Mexico.....	474-5511
New York	
Within area code 518.....	562-4411
Within area code 716.....	437-4411
Within area codes 315, 607, and 914.....	264-3311
North Carolina.....	699-5111
North Dakota.....	783-5771
Ohio	
Within Area Codes 419, 513, & 614.....	293-3131
Oklahoma.....	736-4011
Oregon.....	423-4111
Pennsylvania	
Within area codes 412, and 814.....	722-3311
Within area code 717.....	597-3311
Puerto Rico	
For dialing instructions Dial 1111	
Rhode Island.....	838-1000
South Carolina.....	677-5011
South Dakota.....	782-7000
Tennessee.....	222-3011
Texas	
Within Area Codes 214, 512, 806, 817, & 915...	729-4011
Vermont.....	832-6501
Virginia.....	937-6011
Washington	
Within area code 206.....	399-0111
Within area code 509.....	439-0111
West Virginia.....	924-1511
Wisconsin.....	362-1012
Wyoming.....	328-1110

BEFORE YOU DIG



PLEASE CALL

1114

(FREE CABLE LOCATING SERVICE)

YOU MAY NOT BE ABLE TO AFTERWARDS

ALPHABETICAL LISTING

Activity	Bldg	Phone	Activity	Bldg	Phone
A			AREA AUDITOR		
ACCOUNTING DIVISION			Area Auditor.....	1116	5565
Administrative Section					3865
Accounting Officer.....	1005	2373	Assistant Area Auditor.....	1116	5565
Asst Accounting Officer.....	1005	2373	Audit Chief.....	1116	5565
Secretary.....	1005	2373	ATHLETIC CHIEF.....	751	3125
Control Section			AUDIOVISUAL TRAINING SUPPORT - See Page 33		
Accounting Chief.....	1005	5811	B		
Fiscal Accounting Section			BACHELOR HOUSING OFFICE		
Fiscal Supervisor.....	1005	5818	Director.....	2617	2521
Allotment Unit.....	1005	2043	Billeting & Reservations.....	2617	1856
Expense Operating Budget Unit.....	1005	3241	BAQ Information.....	2617	1385
Reimbursable Unit.....	1005	1647	Duty Manager.....	2617	1856
Cost Account Section.....	1005	3601	Supply Office.....	2617	1385
Supervisor.....	1005	2724	NCOIC.....	2617	1856
Payroll Section-Civilian.....	1005	1935	BACHELOR OFFICERS QUARTERS		
Supervisor.....	1005	5498	Camp Geiger Area - Office.....	TC 1067	0435
Plant Account Section.....	1005	3967	Camp Johnson Area		
Supervisor.....	1005	1453	Office.....	M 231	6253
ADMINISTRATIVE CONTROL UNIT.....	1101	2708	Lobby.....	M 231	6179
		3037	Lobby.....	M 232	6221
			Lobby.....	M 233	6184
AIRLINE TICKET OFFICE			Courthouse Bay Area		
Hadnot Point.....	233	2192	Office.....	BB 45	7384
		5889	Lobby (First Floor).....	BB 45	7378
Phone Service-0830-1100 1300-1700			Lobby (Second Floor).....	BB 45	7384
Hours 0830-1700 Mon thru Fri			Paradise Point Area		
Closed Sat, Sun & Holidays			Lobby.....	2602	1314
Baggage Room.....	233	5454	Lobby.....	2603	1339
Montford Point.....	M 419	0711	Lobby.....	2604	1335
AIR DELIVERY PLATOON - 2D FSSG.....	106	3726	Lobby.....	2605	1392
AIR STATION (H), NEW RIVER - See Page 67			Lobby.....	2607	1346
AMATEUR RADIO STATION (W4LEV).....	PT 5	5116	Lobby.....	2609	1394
AMBULANCE (EMERGENCY)			Lobby.....	2611	2079
Hadnot Point.....	15	3211	Lobby.....	2613	1771
Camp Geiger.....	G 770	0136	Lobby.....	2617	1301
MCASH.....	302	455-6666	Rifle Range Area - Office.....	RR 9	7138
AMERICAN RED CROSS			BACHELOR STAFF NCO QUARTERS		
Main Office.....	41	2173	Camp Johnson Area		
		2182	Office.....	M 128	6265
		2720	Lobby.....	M 128	6292
		5159	Lobby.....	M 130	6276
After Duty Hours, Holidays, Sat & Sun.....		347-5191	Lobby.....	M 234	6227
AMMUNITION DUMP.....	SH 7	2114	Lobby.....	M 235	6223
Ammo Branch - AC/S Sup Svcs.....	SH 7	3812	Lobby.....	M 236	6273
Ammunition Storage.....	SH 7	2114	Hadnot Point Area		
ANIMAL SHELTER.....	PT 33	2695	Office.....	HP 57	1876
			Lobby (Second Floor).....	58	3765
			Lobby (Second Floor).....	67	3434
			Hospital Point Area		
			Lobby.....	H 32	4443
			Lobby.....	H-31	4441
			Rifle Range Area - Office.....	RR 9	7138
			BAGGAGE INCOMING (Personal Effects).....	1011	3671

B-C

Activity	Bldg	Phone
BAND OFFICER - Division	323	5912
Duty NCO.....	323	1814
BANK First Citizens Bank & Trust Company		
Comp Lejeune.....	87	5877 5546 5556 353-1140 353-3113 353-3114
Hours - 0900 - 1300 1430 - 1700 Mon thru Thur		
0900 - 1300 1430 - 1800 Fri		
0830 - 1300 1430 - 1800 Paydays Only		
Camp Geiger.....	TC 900	0500 455-5447 455-5448
Hours - 0900 - 1300 1500 - 1700 Mon thru Fri		
Camp Johnson.....	M 602	0597
Open Paydays Only		
Center Hospital.....	H-1	5969 353-4125
Hours 0900 - 1300 1500 - 1700 Mon thru Fri		
Courthouse Bay.....		7317
Open Paydays Only		
Tarawa Terrace.....		353-3292
Hours - 0900 - 1300 1500 - 1700 Mon thru Thur		
0900 - 1300 1500 - 1800 Fri		
Marine Corps Exchange.....	84	2296 353-9930
Hours - 1000 - 1800 Mon thru Sat		
BEACH AREA - Onslow - See Page 27		
BOAT HOUSE		
Courthouse Bay.....	BB 46	7386
Wallace Creek.....	31	1956
BOWLING CENTER		
Control Counter.....	89	5121
Manager.....	89	5485
Snack Bar.....	89	5731
BOY SCOUT COORDINATOR	2627	2276
BRIDGE Onslow		7376
BUDGET DIVISION Compt Dept	1	3022
BUSSES Marine Corps Base Motor Trans	1407	3243
BUS STATION Commercial Bus Information		
Union Bus Station.....	235	5541
Hours 0600 - 2100 Mon thru Sun		
Military Bus Station Manager.....	235	3632
Military Dispatcher.....	235	3632
Snack Bar.....	235	2070

C

CAB SERVICE		
Commercial.....	235	3674
Military.....	1407	1639

Activity	Bldg	Phone
CALIBRATION SECTION	905	3370
CAMPING TRAILERS Special Services	1113	1368
CAREER PLANNING		
Career Planner - MCB.....	HP-57	5400 1381
Career Planner - Hqs Bn MCB.....	50	1556
Career Planner - Div.....	HP 301	2116 3769 5706
Career Planner - 2d FSSG.....	61	1334
CARPENTER SHOP	1202	1689 3561
CASH SALES AC/S Supply Services MCB		
Self Service Clothing Store.....	1212	2802
Clothing Store Camp Geiger.....	TC 732	0459
CENTER HOSPITAL - NRMC - See Page 81		
CENTRAL HEATING PLANT	1700	3276
TRI-COMMAND CHAPLAINS		
Base Chaplain.....	37	2113 3210
Division Chaplain.....	37	5928 5738 5711 1341
2d FSSG Chaplain.....	37	5633
Assistant Base Chaplain.....	37	3210
Catholic Chaplain.....	67	5342
Jewish Chaplain.....	37	2113
Protestant Chaplain.....	60	2630
H&S Bn Chaplain.....	TC 601	0794
Chaplain Camp Geiger.....	1041	1486
Chaplain Correctional Facilities.....	BB 16	7304
Chaplain Courthouse Bay.....	M 116	0507
Chaplain Camp Johnson.....	H 1	4365
Center Hospital - Catholic.....	H 1	4391
Center Hospital - Protestant.....	37	2113
Duty Chaplain.....		
Chapels		
Camp Geiger.....	TC 601	0794
Camp Johnson.....	M 116	0507
Catholic Chapel.....	17	5775
Courthouse Bay.....	BB 16	7304
Jewish Chapel.....	67	5342
Protestant Chapel.....	16	5646
Tarawa Terrace.....	2791	5353 2967
CID	3	2571 2228 TC 307 0522
CIVILIAN IDENTIFICATION CARDS Prov Mar	3B	2727 1005
CIVILIAN PAYROLL SUPERVISOR	1005	5498
Supervisor Personnel History Section.....	1005	1935
CIVILIAN PERSONNEL OFFICE		
Civilian Personnel Officer.....	33	1886
Secretary.....	33	5904

Activity	Bldg	Phone
Employment Division		
Employment Superintendent.....	33	5918
Assistant Employment Superintendent.....	33	5918
Job Placement Branch.....	33	1656
Employment Records Inquiries.....	33	2763
Qualification & Evaluation Branch.....	33	1621
Employment Information.....	33	1621
Employee Relations & Services		
Employee Relations Superintendent.....	33	1579
		1458
		2305
Insurance, Retirement.....	33	1579
Labor Management Relations.....	33	1579
Worker's Compensation.....	33	1579
Occupational Health Division		
Occupational Nurse.....	15	2181
Training Division		
Training Superintendent.....	33	1539
		3653
Classification Division		
Classification Superintendent.....	33	1532
Performance Ratings.....	33	1532
CLOTHING OFFICER MCB.....	1212	3170
		2802
COLD STORAGE PLANT.....	1300	3428
COMBAT VILLAGE.....		7452
COMMAND CLUB MANAGEMENT SYSTEM		
Manager.....	1401	2801
Accounting.....	1401	2862
Purchasing.....	1401	2863
Payroll/Personnel.....	1401	2861
Branches		
Officers' Club, Paradise Point.....	2615	2465
Manager.....	2615	2465
Information.....	2615	2466
Camp Johnson Annex.....	M-231	0808
Courthouse Bay Annex.....	BB-45	7372
Onslow Beach Annex.....	BA 115	7127
Guest House (Junior).....	2603	1339
Guest House (Senior).....	2601	
Room 102.....		1701
Room 108.....		1703
Room 200.....		1705
Room 203.....		1707
Room 210.....		1709
Room 212.....		1792
Enlisted Clubs		
Manager.....	62	2872
Area No. 2.....	225	3814
Area No. 5.....	524	5294
Camp Geiger.....	TC-614	0270
Camp Johnson.....	M-134	0709
Central Area Club.....	62	1942
Courthouse Bay Svc Club, CCMS.....	BB-54	7397
French Creek.....	FC 318	1446
Industrial Area Service Club.....	1006	3609
NRMC.....	H 1	4387
Onslow Beach.....	BA 114	7126
Recon Service Club.....	BA 101	7498
Rifle Range.....	RR 49	7146
Noncommissioned Officers' Club		
Manager.....	425	2854
Treasurer.....	425	2752

Activity	Bldg	Phone
Hadnot Point.....	425	3888
Camp Geiger Annex.....	G-560	0246
Camp Johnson Annex.....	M-100	0838
Courthouse Bay Annex.....	BB-54	7277
Staff Noncommissioned Officers' Club		
Manager.....	322	2752
Treasurer.....	322	2839
Hadnot Point.....	322	1534
		1007
Camp Geiger Annex.....	TC-910	0274
Camp Johnson Annex.....	M-240	6180
Courthouse Bay Annex.....	BB-27	7462
Onslow Beach Annex.....	BA-113	7197
Consolidated Package Stores		
Main Store.....	1401	2777
Tarawa Terrace Store.....	2471	2275
Warehouse, CCMS.....	1401	3137
Golf Course Snack Bar.....	1915	1445

COMMISSARY - See Page 33**COMMISSIONED OFFICERS MESS (Open)**

Officer in Charge.....	2615	2465
Annexes		
Courthouse Bay Annex.....	BB 45	7372
Montford Point Annex.....	M 231	0808
Onslow Beach Annex.....	BA 115	7127
Senior Guest House		
Room 102.....		1701
Room 108.....		1703
Room 200.....		1705
Room 203.....		1707
Room 210.....		1709
Room 212.....		1792

COMMUNICATION - ELECTRONICS

Communication-Electronics Officer.....	24	5802
Asst Communication-Electronics Officer.....	24	2731
Comm Chief/Administration.....	24	2731
Communication Center DIC/NCOIC.....	1101	5422
Communication Watch Officer.....	1101	1602
AUTODIN Relay Supervisor.....	1101	2625
AUTODIN Relay Operator.....	1101	1443
Facilities Control.....	1101	3579
Fiscal/Supply.....	24	1661
Mobile Radio Maint./Rep.....	S-23	1660
Maintenance Officer/Chief.....	24	3721
Maintenance Trouble Calls.....	24	3721
Operations Officer/Chief.....	24	1661
Radio Central.....	24	1661
Amateur Radio Station.....	PT 5	5116
		5009

COMMUNITY ACTIVITIES

Asst Recreation Dir - Youth Activities.....	730	5052
Marston Pavilion Youth Center.....	730	1521
Midway Park Community Center.....	4025	1549
Tarawa Terrace Community Center.....	TT 44	2253
Youth Athletic Activities.....	751	3125
Youth Community Activities.....	730	1521

COMPTROLLER DEPARTMENT

Assistant Chief of Staff Comptroller.....	1	2427
Deputy Comptroller.....	1	2427
Secretary.....	1	2427
Accounting Officer.....	1005	2373

C-D

Activity	Bldg	Phone
Budget Officer.....	1	3022
Disbursing Officer.....	1005	2815
Fiscal Supervisor.....	1005	5818
Civil Payroll Supervisor.....	1005	5498
Cost Accounting Supervisor.....	1005	2724
Internal Review.....	1	2327
		1779
Plant Account Supervisor.....	1005	1453
CONSOLIDATED AUTOMATED SERVICES CENTER		
Director.....	1101	2728
		2721
Assistant Director.....	1101	2728
		2721
Installation Chief.....	1101	2721
Secretary.....	1101	2721
Administrative Section.....	1101	1839
Supply/Accounting Section.....	1101	2721
Systems Programming Officer.....	1101	2721
Applications Programming Branch		
Head, Applications Programming Branch.....	1101	2725
Systems Analysts.....	1101	2725
Fiscal Programmers.....	1101	1861
MMS/Personnel Programmers.....	1101	1835
Logistics Programmers.....	1101	1861
Small Systems Programmers.....	1101	1835
Processing Branch		
Head, Processing Branch.....	1101	2721
Operations Chief.....	1101	2721
Customer Services.....	1101	1888
S D A Operations.....	1101	1911
After Working Hours		
Processing Branch.....	1101	1888
CONTRACTING DIVISION - See Page 34		
CONTRACTORS		
Allen M. Campbell.....		2688
		2842
		2865
		2691
		2394
Bryant - Durham Electric Company.....	Trlr	2849
Hust Brothers.....	1502	3185
IBM Corporation.....		2793
Miller Building Corporation.....		2284
		2233
		2693
Phifer & Goodwin Construction.....		2134
Poole & Kent Corp.....		5331
Raytheon Service Company.....		5061
Sidlis TV Rental Company.....	88	5488
Speed Craft Shoe Service, Inc.....	43	5797
CORRECTIONAL FACILITY		
Commanding Officer.....	1041	5920
Executive Officer.....	1041	1308
Sergeant Major.....	1041	5148
Corrections Officer.....	1041	5920
		1308
Corrections Supervisor.....	1041	2330
Prisoner Support Officer.....	1041	1479
Prisoner Admin/Hold Ins/Temp Release.....	1041	2330
		5181
Treatment Officer.....	1041	1488
Security Officer.....	1041	2330
Chaplain.....	1041	1871

Activity	Bldg	Phone
Magistrate.....	1041	5181
Control.....	1041	1039
Supply.....	1041	1493
Dining Facility.....	1041	3473
Counselors.....	1041	1486
Industries/Work Parties.....	1041	1967
Sick Bay.....	1041	1834
Warden of the Day.....	1041	5920
		1308
COST ACCOUNTING Compt Dept.....	1005	2724
		3601
COUNTERINTELLIGENCE - DIVISION		
Combat Intelligence.....	518	1725
Counterintelligence.....	2	1501
ITT Coordinator/Language Officer.....	123	2112
		3206
Photo Imagery Interpretation.....	123	3114
Interrogation Translation Teams (ITT).....	123	3212
4th CIT.....	430	1537
		5411
5th Special Security Comm Team.....	518	5716
Map Storeroom.....	518	2816
COUNTERINTELLIGENCE TEAM - 2d FSSG		
2d CIT.....	FC 400	5719
		1067
CREDIT UNION (MARINE FEDERAL)		
Switchboard & Information.....	58	* 2492
Hours - 0815 - 1600 Mon, Tue, Thurs, Fri		
0815 - 1300 Wed		
CRIMINAL INVESTIGATION.....	3	2571
CUSTODIAN RECREATION FUND.....	751	5824
D		
DEFENSE INVESTIGATIVE SERVICE.....	JKVL	0176
		0650
DEFENSE PROPERTY DISPOSAL OFFICE....	906	5613
		5652
		2303
		1631
Open Storage.....	Lot 203	5156
Receiving Unit.....	906	1634
Sales Storage.....	1117	3263
DEMPSTER DUMPSTER.....	1105	2636
DENTAL CARE - See Page 79		
DENTAL OFFICER - MCB.....	15	2208
Administrative Officer.....	15	2208
Dental Officer of the Day.....	15	1658
Appointments - Information.....	15	1658
		3776
Preventive Dentistry Unit.....	65	3264
Personnel Officer.....	65	3555
Prosthetic Department.....	65	5314
Dental Clinic Camp Geiger.....	G 770	0740
Dental Clinic Courthouse Bay.....	BB 10	7147

Activity	Bldg	Phone
Dental Clinic French Creek.....	FC 313	3239
Dental Clinic Montford Point.....	M 128	6288

DEPENDENT OUTPATIENT CLINICS - See Page 82**DINING FACILITIES****Marine Corps Base**

Headquarters Battalion, MCB.....	9	5244
Dining Facility Manager.....	9	1737
Support Battalion, MCB.....	1209	3819
Courthouse Bay.....	BB-7	7148
Correctional Facility.....	1041	3473
Rifle Range.....	RR-3	7346
Camp Johnson.....	MP-424	6176
Marine Corps Air Station (H).....	4012	00-851
Marine Corps Air Station.....	226	00-151

2d Marine Division

Camp Geiger, 8th Mar.....	G-640	0369
Dining Facility Manager.....	G-640	0438
2nd Recon Bn.....	BA-103	7161
2nd Marines.....	211	3490
3/2.....	122	2010
H & S Bn.....	325	3689
6th Marines.....	411	3431
10th Marines.....	521	3909
Dining Facility Manager.....	521	3909

2nd FSSG

H & S BN.....	FC 540	3600
8th Motor Transport Bn.....	FC-420	1021
8th Eng. Bn.....	FC-303	1390
2nd Landing Support Bn.....	508	5266

DISASTER CONTROL OFFICER 1 3520

DISBURSING

Disbursing Officer	1005	2815
Asst Disbursing Officer.....	1005	2815
Disbursing Chief.....	1005	2815
Fiscal Data Section.....	1005	2251
Key Punch Section.....	1005	3051
Mail & File Section.....	1005	3051
Military Pay Account Section.....	1005	3051
Public Voucher Section.....	1005	1365
Travel Section.....	1005	3051

DEPUTY DISBURSING OFFICES**Courthouse Bay - Marine Corps Engineer School**

Deputy Disbursing Officer.....	BB 8	7258
NCOIC.....	BB 8	7207
Pay Accounts.....	BB 8	7284

Montford Point Marine Corps Service Support Schools

Deputy Disbursing Officer.....	M 401	6106
NCOIC.....	M 401	6257

Naval Hospital

Deputy Disbursing Officer.....	H 1	4363
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MCB Navy Accounts.....	H 1	4478
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2d Mar Div Navy Accounts.....	H 1	4478
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		4363
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Activity	Bldg	Phone
2d FSSG/MCAS (H) Navy Accounts.....	H-1	3166
		3155

DISBURSING ON-SITE EXAMINATION TEAM - MARCORPS

Officer In Charge.....	M 414	6211
Assistant Officer In Charge.....	M 414	6211
Enlisted Examiners.....	M 414	6143

DISPENSARY Medical Department - See Page 81

DOG POUND..... PT 33 2695

DRUG & ALCOHOL

MCB.....	14	5733
2D Marine Division.....	14	1954
2D FSSG.....	61	3471

DSSC Division - See Page 34**DUTY OFFICER**

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E**EDUCATION OFFICES - See Page 33**

ELECTRIC SHOP..... 1202 5256

EMBARKATION OFFICER - DIVISION..... 320 5518
3780

EMERGENCY

Fire.....		3333
Maintenance.....	1202	3001
Military Police.....	3	2555
Medical Officer.....	15	3141

EMPLOYEE RELATIONS Civilian Personnel... 33 1579

EMPLOYMENT OFFICE (Civil Service)..... 33 2763

ENGINEER SCHOOL MARINE CORPS - See Page 37**EXCHANGE (MCX) - See Page 24****EXPLOSIVE ORDNANCE DISPOSAL**

Explosive Ordnance Disposal.....	G 480	0118
EOD Platoon.....	1308	5419

F**FIELD MEDICAL SERVICE SCHOOL - See Page 37**

FAMILY ASSISTANCE OFFICE..... 41 5417
1362

FIELD HOUSE..... 751 5694

FIELD SUPPLY MAINT & ANALYSIS OFFICE.. M 129 6213
6162

F-H

Activity	Bldg	Phone
FIRE DEPARTMENT		
EMERGENCY FIRE ONLY.....		
Fire Chief.....	18	3333 5815 5956
District Fire Chief - Camp Geiger.....	TC 701	0538
District Fire Chief - Midway Park.....	4022	2383
Chief Fire Inspector.....	1203	5037
Fire Station #3.....	18	5856
Courthouse Bay Fire Station #7.....	BB 8	7221
Fire Station #8.....	M 303	6132
Rifle Range Fire Station #10.....	RR 6	7223
Industrial Area Fire Station.....	1400	2131
Paradise Point Fire Station.....	2600	2132
Fire Tower 2 Sneads Ferry.....		7491
Fire Tower 3 Dixon.....		347-1977
Fire Tower Deppe Highway 17.....		347-3218
Fire Tower 5 Engineer Stockade.....		3956
FIREWOOD.....	1202	5376
	1041	1967
FISH & WILDLIFE CONSERVATION.....	1103	2195
FISH & WILDLIFE GAME WARDEN.....	4002	5226 2196
FLOWER SHOP.....	895	2674 353-9700
FMF ASSISTANCE - MCB.....	207	3049
FMF ASSISTANCE - DIVISION.....	10	3057
FOOD SERVICE DIVISION, MCB - See Page 34		
FOOD SERVICE SCHOOL COMPANY - See Page 39		
2d FSSG TRAINING ALLOWANCE POOL.....	1317	1000 5814
2d FSSG FMFLANT - See Page 55		
FORESTRY OFFICER.....	1103	2195
FREIGHT TRANSPORTATION & TRAFFIC SECTION		
General Foreman.....	1011	2542
Freight Claims/Receiver.....	1011	2542
Freight Processing Unit.....	Lot 201	3551
Warehouse Receiving Unit.....	1011	5245
Warehouse Shipping Unit.....	915	1585
FRENCH CREEK AREA CLINIC		
Medical Officer.....	FC 313	5798
Clinic Supervisor.....	FC 313	5798
Administration.....	FC 313	5125
Health Records.....	FC 313	5126
Physical Exams.....	FC 313	5127
Bn Chief, 8th EngSupt Bn.....	FC 313	5125
Bn Chief, 8th Comm Bn.....	FC 313	5127
Freight Shipments.....	1011	2542
FUEL PUMPS		
Fuel Issue - Camp Geiger.....	TC 364	0269
Fuel Storage - Shop Stores.....	1002	5186
Gas Pumps - Military Vehicles.....	1002	5186

Activity	Bldg	Phone
FURNITURE PUBLIC QTRS Qtrs & Housing....	1501	5349
FURNITURE REPAIR Special Services.....	TC 609	0562
G		
GAME WARDEN.....	4002	5226
GATES		
Main Gate - Camp Lejeune.....	35	1821
Visitor's Information Center.....	812	1344
Motor Vehicle Registration.....	4000	1793 5348
Camp Geiger Gate.....	TC 306	0143
Camp Johnson Gate.....	M 169	6141
Rifle Range.....	RR 78	7247
Sneads Ferry Gate.....	A-20	7391
Triangle Outpost Gate.....	CR-122	1589
GIRL SCOUT COORDINATOR.....	2627	2276
GLOBE		
Editor.....	302	5680
Public Affairs Officer & Chief.....	302	5655
Release Section.....	302	5782
GOLF COURSE		
Golf Pro Shop.....	1915	5445
Greenskeeper.....	1916	2273
Issue Room & Reservations.....	1915	1668
GOTTSCHALK MARINA.....	31	1956
GYMNASIUMS		
Area 2.....	201	1612
Area 4.....	401	3768
Area 5.....	500	5288
2d FSSG.....	115	1879
Camp Geiger.....	TC-775	0131
Montford Point.....	M 129	6245

H

HQMC LIAISON REPRESENTATIVE SECTION		
Senior HQMC Liaison Representative.....	1	2715
Admin Asst/Section Chief.....	1	1751
HIDDEN TALENTS (OWC).....	64	2658
HOBBY SHOPS		
Hobby Shops NCOIC.....	1107	5191
Auto Body Shop Hadnot Point.....	1103	2042
Auto Hobby Shop Hadnot Point.....	1120	1550
Ceramic Hobby Shop Hadnot Point.....	1107	2077
Woodworking Hobby Shop Hadnot Point.....	1106	5191
HOSPITAL CENTER -NRMC - See Page 81		
HOSTESS HOUSE.....	896	3041
HOUSEHOLD GOODS & PERSONAL PROPERTY		
Claims Unit.....	1011	2654
Personal Effects & Baggage.....	1011	3671

Activity	Bldg	Phone
Quality Assurance Unit.....	1011	2543
Receiving Unit.....	1011	3081
Self-Move Section.....	1011	2377
		1367
Shipping Unit.....	1011	2647
		2654
Voucher Examiner Unit.....	1011	2647
HOUSING (FAMILY)		
Applications & Assignments.....	TT 43	2577
Vacate & Checkouts.....	TT 43	2577
Off-Base Housing Referral.....	TT-43	2548
Fiscal Section.....	TT-43	2448
Cashier.....	TT-43	2448
Furniture Section.....	1501	2812
		3657
		5349
Director.....	TT-43	5902
Secretary.....	TT-43	2895
Work Center		
Maintenance Requests (0800-1630).....	2797	2244
		2245
Maintenance MCAS (H) NR (Only) (0800-1630)..	122	455-6817
Emergency Maint (after normal working hours)..	1202	3001
Tenant Relations.....	2797	2825
Inspection Section.....	2797	2247
I		
ICE PLANT.....	1300	3428
IDENTIFICATION		
Pet Registration.....	3 B	1005
Civilian I. D. Cards.....	3 B	2727
		1005
I.D. Photo.....	3-B	1005
		2727
INFORMATION COORDINATOR, MCB.....	1	3605
INSECT VECTOR CONTROL.....	PT 37	5761
INSPECTOR - MCB.....	1	1850
Base Traffic Board.....	4000	5807
Base Traffic Court.....	4000	1951
		1582
INTERNAL AUDIT OFFICE.....	TT42	5995
INTERNAL REVIEW SECTION.....	1	2327
		1779
INVESTIGATION (CID).....	3	2571
J		
JOINT PUBLIC AFFAIRS OFFICER.....	302	5655
Public Affairs Chief.....	302	5655
Community Relations Section.....	302	2604
GLOBE.....	302	5680
Instant Information.....	302	1543
Press Chief.....	302	5680
		5782

Activity	Bldg	Phone
Radio - TV Section.....	302	5782
JUDICIARY ACTIVITY Marine Corps US Navy		
General Courts-Martial Judge.....	66	5816
		2224
Special Courts-Martial Judges.....	66	3842
L		
LAUNDRY DIVISION - See Page 34		
LEGAL ASSISTANCE OFFICER, TRI-COMMAND	66	1903
		5860
LIBRARIES		
Camp Johnson.....	M 321	6171
Central Library.....	63	5724
		3178
LOCATOR PERSONNEL - Tri Command.....	1770	3074
LOCKSMITH.....	1202	3001
LOGISTICS DEPARTMENT		
Assistant Chief of Staff Logistics.....	1116	2535
Secretary.....	1116	2535
Asst AC/S Logistics.....	1116	2535
LOTS		
140.....		1712
201.....		1625
203.....		5156
LUMBER YARD.....	1302	5105
M		
MAGAZINE AREA.....	SH 7	2114
MAINTENANCE DEPARTMENT		
EMERGENCY MAINTENANCE.....	1202	3001
24 Hour Service		
Hadnot Point.....	1202	3001
Montford Point.....	M 131	6142
Base Maintenance Officer.....	1202	2511
Assistant Maintenance Officer.....	1202	2511
Secretary.....	1202	2511
Maintenance Liaison NCO.....	1202	5376
ADMINISTRATIVE DIVISION		
Director.....	1202	5307
Personnel Clerk.....	1202	3722
Finance and Accounting Branch		
Fiscal Accounting Supervisor.....	1202	5122
Property Office.....	1202	5300
		1004
MAINTENANCE AND REPAIR DIVISION		
Director.....	1202	5855
		5184
Assistant Director.....	1202	5855

M

Activity	Bldg	Phone
Emergency/Service Branch		
Branch Head	1202	5773
General Trades Branch		
Maintenance General Foreman.....	1202	2867
Carpentry Shop.....	1202	1689
		3561
Electric Shop.....	1202	5256
Electric Distribution Shop.....	1202	5256
Lawnmower Repair.....	940	1823
Metalworking Shop.....	1202	5110
Paint Shop.....	1202	2044
		5072
Plaster & Masonary Shop.....	1304	1775
		2090
Plumbing and Heating Shop.....	1202	3457
Steam & Water Distribution.....	1103	5147
Refrigeration and Air Conditioning Shop.....	1202	3235
Motor Transport Support Section		
Motor Transport.....	1203	3939
U-Drive.....	1203	3160
Structures and Ground Service Branch		
Ground Structures General Foreman.....	1105	5158
Groundskeeping Section.....	1105	2636
Heavy Equipment Section.....	45	5909
		2295
Bridge (Onslow Beach).....		7376
Insect and Rodent Control Section.....	PT 37	5761
Insect Vector Control Dispatcher.....	PT 37	3582
Nursery and Landscaping Section.....	1105	3446
Refuse and Garbage Collection.....	1105	2636
NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS DIVISION		
Director.....	1103	5003
		2083
Ecologist.....	1103	5003
		2083
Forestry Branch	1103	2195
Fire Tower 2 Sneads Ferry Gate Area.....		7491
Fire Tower 3 Dixon.....		347-1977
Fire Tower 4 Deppe.....		347-3218
Fire Tower 5 Onslow Beach Area.....		3956
Fish and Wildlife Branch	1103	2195
Game Warden Branch	4002	5226
		2196
Quality Control Laboratory.....	762	5977
OPERATIONS DIVISION		
Director.....	1202	1580
Assistant to Director.....	1202	1580
Inspection Branch.....	1202	5202
Planning & Estimating Branch.....	1202	5809
		1358
Work Management Branch		
Branch Head.....	1202	5418
Shop Planners.....	1202	3109
Shop Planner.....	1304	2156
Shop Planner.....	AS-122	455-6719
Programming & Work Reception Branch		
Programmer.....	1202	2590
Self-Help/Troop Training NCO	1202	2970
TELEPHONE DIVISION		
Telephone Officer.....	1104	2531
Wire Chief.....	1104	2531
Telephone Accounts.....	1104	2531
Hours 0830 - 1530 Mon thru Fri		
Directory Information.....	1	1115

Activity	Bldg	Phone
Telephone Chief Operator.....	1	3400
Telephone Repair.....	1	1114
UTILITIES DIVISION		
Director.....	1202	5161
Utilities General Foreman.....	1202	5161
Cold Storage Plant (Machine Room).....	1300	3567
Heating Plant.....	1700	3627
Sewage Treatment Plant.....	22	5933
Water Treatment Plant.....	20	5988
Computer Room.....	1202	2985
Utilities Monitoring Engineer.....	1202	5642
Tech Shop, UMACS.....	1105	3252
MAINTENANCE - FAMILY HOUSING		
Routine Requests (0800-1630).....	2797	2244
		2245
MCAS (H) NR (Only) (0800-1630).....	122	455-6817
Emergency (after normal working hours).....	1202	3001
MANAGEMENT ASSISTANCE OFFICE		
Management Assistance Officer.....	12	5521
		1577
MARINA - GOTTSCHALK	31	1956
MARINE CORPS ENGINEERS SCHOOLS - See Page 37		
MARINE CORPS EXCHANGE ACTIVITIES		
SWITCHBOARD	895	* 2481
COMMAND SECTION		
Exchange Officer.....	895	5944
Asst Exchange Officer.....	895	5462
Operations/Admin Director.....	895	5944
Operations Chief.....	895	2744
ACCOUNTING SECTION		
Comptroller.....	895	* 2481
Accountant.....	895	* 2481
Assistant Acct/Office Mgr.....	895	* 2481
EDP Operations Center.....	895	5842
ADMINISTRATIVE SECTION		
Operations/Admin Director.....	895	5944
		5462
Assistant Admin Supervisor.....	895	5944
		5462
ALTERATIONS CLOTHING		
Alteration Shop.....	25	5396
Uniform Shop, Main Store.....	84	* 2481
AUTOMOTIVE SECTION		
Automotive Director.....	1611	2443
Asst Automotive Director.....	1611	2443
Service Desk.....	1611	2443
Accessories/Parts.....	1611	2443
Camp Geiger Ser Sta.....	TC-912	0690
Camp Johnson Ser Sta.....	M 171	0832
Central Ser Sta (Pumps).....	1613	2443
Courthouse Bay Ser Sta.....	BB 177	7345
Midway Park Ser Sta.....	4015	2783
MCAS(H) New River Ser Sta.....	410	347-5681
Rifle Range Ser Sta.....	RR 72	7122
Tarawa Terrace Ser Sta.....	2453	2147

*Denotes Private Switchboard

Activity	Bldg	Phone
BANK, MAIN STORE	84	2296
BARBER SHOPS		
Area #2.....	225	1626
Area #4.....	403	1681
Area #5.....	524	2336
Building #2.....	2	1791
Building #4.....	4	5337
Camp Geiger.....	TC-910	0744
Camp Johnson.....	M19	6260
Central.....	84	*2481
Courthouse Bay.....	BB 3	7357
French Creek.....	FC 312	5237
Industrial Area.....	1207	1780
MAG-29 MCAS(H) New River.....	4126	455-6538
MCAS(H) New River.....	233	347-4377
Midway Park.....	4014	2342
Naval Regional Medical Center.....	H 1	4532
Onslow Beach.....	BA 101	7297
Rifle Range.....	RR 10	7230
Tarawa Terrace.....	2473	2345
BEAUTY SHOPS		
Central.....	84	5090
MCAS(H) New River.....	233	347-4377
Midway Park.....	4014	2342
Tarawa Terrace.....	2473	2345
BOWLING PRO SHOP, HADNOT POINT	89	5731
CHECK REDEMPTION	895	* 2481
CLEANING & PRESS SHOPS		
Area #2.....	225	5767
Area #4.....	Trailer	5676
Area #5.....	524	5873
Camp Geiger.....	TC-830	0716
Camp Johnson.....	M-602	0737
Central.....	25	5686
Courthouse Bay.....	BB 16	7415
French Creek #1.....	FC 320	5466
French Creek #2.....	Trailer	5572
MCAS(H) New River.....	232	347-5748
Tarawa Terrace.....	2467	2344
COBBLER SHOP	43	5797
DECORATOR/DISPLAY SECTION	1402	* 2481
EDP OPERATIONS CENTER	895	5842
EXCHANGES		
Area No 2.....	225	1626
Area No 4.....	403	1681
Area No 5.....	524	2336
Berkeley Manor 7-Day.....	1985	5491
Bldg #4.....	4	5337
Camp Geiger.....	TC 910	0793
Camp Johnson.....	M-19	0822
Courthouse Bay.....	BB 3	7357
French Creek.....	FC 320	2382
Industrial Area.....	1207	1780
Main Exchange, Hadnot Point.....	84	* 2481
MAG-29, MCAS(H) New River.....	4126	455-4144
MCAS(H), New River & 7-Day.....	232	347-2168
Midway Park 7-Day.....	4014	2341
Naval Regional Medical Center.....	H 1	4590

*Denotes Private Switchboard

Activity	Bldg	Phone
Onslow Beach.....	BA 101	7297
Rifle Range.....	RR 10	7230
Tarawa Terrace.....	2461	2668
Tarawa Terrace 7-Day Store.....	2477	5431
FINANCE OFFICE	84	5070
FLOWER SHOP	895	2674
FOOD SERVICE SECTION		
Food Director.....	1010	5672
Assistant Food Director.....	1010	5077
Manager Theater Snack Bars.....	1010	5077
Area #4 Snack Bar.....	403	1681
Berkeley Manor Hot Dog Hut.....	-	5491
Bowling Center Snk. Bar, Hadnot Point.....	89	5731
Bowling Ctr. Snk. Bar, MCAS(H), New River.....	205	455-6731
Building #4 Snack Bar.....	4	5337
Building #1202 Snack Bar.....	1202	3923
Bus Station Snack Bar.....	251	2070
Cafeteria/Steak House.....	1220	2591
Camp Geiger Snack Bar.....	TC 910	0793
Camp Johnson Snack Bar.....	M19	0822
Courthouse Bay Snack Bar.....	BB 3	7357
Fast Food Snack Bar.....	84	2791
Food Preparation & Issue Warehouse.....	1015	5534
French Creek Snack Bar.....		2632
Gun Park Hot Dog Hut.....		3142
Industrial Area Hot Dog Hut.....		2877
MAG-26 MCAS(H) New River Snack Bar.....		455-6736
MAG-29 MCAS(H) New River Snack Bar.....	232	347-2168
Mainside Hot Dog Hut.....		2791
MCAS(H) New River Hot Dog Hut.....		455-6736
Midway Park Snack Bar.....	4014	2341
Mobile Food Units.....	1015	5658
Montford Point Theater Snack Bar.....	SM 175	6161
Naval Reg. Medical Center Snack Bar.....	H 1	4590
Rifle Range Snack Bar.....	RR 10	7230
Steakhouse.....	1220	2591
Stock Control (Food Activities).....	1010	2758
Tarawa Terrace Snack Bar.....	2461	2668
LAYAWAY PICKUP WAREHOUSE	1402	* 2481
MAIN STORE HADNOT POINT		
Manager/Asst Mgr.....	84	* 2481
Annex - Merchandise Pickup.....	88	* 2481
Customer Service/Layaways/Def Payments.....	84	* 2481
Section #1 (Toiletries/Case Lot Sales).....	84	* 2481
Section #2 (Ladies, Infants, Ladies Shoes).....	84	* 2481
Section #3 (Housewares, Sewing, Luggage).....	84	* 2481
Section #4 (Hardware, Toyland, Garden Shop).....	84	* 2481
Section #5 (Sound, Jewelry, Gift).....	84	* 2481
Section #6 (Mens).....	84	* 2481
Section #7 (Uniform Shop).....	84	* 2481
Section #8 (Sporting Goods, Camera).....	84	* 2481
MAINTENANCE SECTION		
Property & Maintenance Director.....	895	2135
Maintenance Section.....	1016	5392
Maintenance Shop, Midway Park.....	4015	3803
MERCHANDISE/PURCHASING SECTION		
Merchandise Director.....	895	* 2481
Manager, Branch Exchanges.....	895	* 2481

M-N

Activity	Bldg	Phone
Buyers.....	895	* 2481
Stock Control.....	895	* 2481
MERCHANDISE WAREHOUSE		
Distribution Fac Mgr.....	1402	3522 2481
Warehouse Manager.....	1402	* 2481 3612 3136
Receiving Section.....	1402	* 2481 3612 3136
Return Order Section.....	1402	* 2481
OPERATIONS SECTION		
Operations/Administrative Director.....	895	5944
Operations Chief.....	895	* 2481
Check Redemption.....	895	* 2481
Inspectors.....	895	* 2481
Training Classroom.....	1006	1783
OPTICAL SHOPS		
Hadnot Point.....	88	2857
MCAS(H) New River.....	233	347-5531
PERSONNEL SECTION		
Personnel Director.....	895	* 2481
Asst Personnel/Training Director.....	895	* 2481
Insurance Clerk.....	895	* 2481
PREPAID SUPPLIES WAREHOUSE.....		
	TC 611	0736
RADIO & TV REPAIR.....		
	88	5684
Rental TV Shop.....	84	5488
SERVICES SECTION		
Services Director.....	1413	5631
Laundromat/Information/Complaints.....	1413	5631
Vending Service Calls.....	1413	2000
Vending Warehouse.....	1413	5631
SECURITY SECTION		
Security Manager.....	84	2642
Security Section, Main Store.....		* 2481
WATCH REPAIR.....		
	88	5937
MARINE CORPS SERVICE SUPPORT SCHOOLS - See Page 38		
MARINE SPORT PARACHUTE CLUB.....		
	M 218	0827
MARS STATION (Amateur Radio).....		
	PT 5	5116 5009
MARSTON PAVILION YOUTH ACTIVITIES.....		
	730	1521
Asst Rec Dir Youth Community Activities.....	730	5052
MIDWAY PARK		
Chapel.....	4025	1309
Community Center.....	4025	1549
Fire Department (Station 2).....	4022	2383
Nursery.....	4025	5981
Post Office.....	4014	2784
Theater.....	4014	3181

Activity	Bldg	Phone
MILE HAMMOCK BAY.....		
		7156
MILITARY POLICE EMERGENCY.....		
	3	2555
MILITARY TAXI.....		
	1407	1639
MIMMS OFFICER.....		
	1208	5109
MOTOR TRANSPORT DEPARTMENT		
Motor Transport Officer.....	1502	5608
Asst. Motor Transport Officer.....	1502	5608
Motor Transport Chief.....	1502	5375 3537
Operations Branch		
Operations Director.....	1407	2803
Operations Chief.....	1407	2803
MT Staff Duty Officer(After 1630 & Sat & Sun).....	1407	2803
Main Motor Pool Hadnot Point		
Dispatcher (24 Hours Daily).....	1407	3585
Military Taxi Dispatcher.....	1407	1639
Bus Section.....	1407	3585
	235	3632
Light/Medium Section.....	1310	3930
Heavy Section.....	1407	3585
MT Support Section, MCAS.....	119	455-6843
MT Support Section, MCES (Courthouse Bay).....	BB 73	7394
MT Support Section, Rifle Range.....	RR 14	7280
MT Support Section, Base Medical Dept.....	15	3141
Maintenance Branch		
Maintenance Director.....	1502	5375
Main Maintenance Shop Hadnot Point		
Repair Section I.....	1502	3437
Repair Section II.....	1502	3437
Materials Handling Equipment Section.....	1502	5167
Body Shop.....	908	1718
Lube Shop.....	1607	3112
Inspection Station.....	1504	3116
Maintenance Support Section, MCAS.....	118	455-6705
Administrative Branch		
Driver License Examiner & Trainer.....	1502	3244
Fiscal & Timekeeping.....	1502	3437
Maintenance Control and Vehicle Utilization.....	1502	5273
Property Section.....	1502	1710
Tire Shop.....	1504	3815
Contractor Operated Parts Store (COPARS).....	1502	3185

MOTOR TRANSPORT SCHOOL Co, MCSSS - See Page 39

N

NAVAL AUDIT SITE		
Auditor in Charge.....	65	2115 2175
NAVAL INVESTIGATIVE SERVICE.....		
	3	2726 2255 2602 2606 3102
After normal hours contact Base PMO.....	3	2555

NAVAL REGIONAL DENTAL CENTER - See Page 79

* Denotes Private Switchboard

Activity	Bldg	Phone	Activity	Bldg	Phone
NAVAL REGIONAL MEDICAL CENTER - See Page 81			PASSENGER TRAFFIC AC/S Sup SVCS	233	1971 5311
NAVY BOAT CREW UNIT	1409	5046	PASSPORT AGENT	66	5860 1903
NAVY RELIEF SOCIETY			PAYROLL SECTION - Civilian(Compt Dept) ...	1005	5498
Executive Secretary.....	41	5584	PEPPERDINE UNIVERSITY - See Page 33		
General Offices.....	41	5346 5644	PERSONAL EFFECTS & BAGGAGE	1116	3671
Layette Room.....	2627	353-4983	PERSONNEL OFFICER - MCR	I	3048
NCO CLUBS			After 1630.....	10	3057
Manager.....	425	2854	PET REGISTRATION Provost Marshal	3 B	1005
Treasurer.....	425	2752	PHOTOGRAPHIC SERVICES - See Page 33		
Hadnot Point.....	425	3888	PHYSICAL EVALUATION BOARD		4384
Camp Geiger.....	G 550	0246	PLANT ACCOUNT SECTION Compt Dept	1005	3967 1453
Courthouse Bay.....	BB 54	7277	PLATOONS		
Montford Point.....	M 100	0838	Air Delivery - 2d FSSG.....	106	3726
NURSERY			Air & Naval Gunfire - Div.....	307	1043
Camp Lejeune Sitting Service.....	712	353-5283	Explosive Ordnance Disposal - 2d FSSG.....	1308	5419
Midway Park.....	4025	5981	Material Handling - 2d FSSG.....	1812	1742
Paradise Point Nursery School.....	2625	353-4888	Multi Channel - Div.....	1703	1597
Sitting Service Paradise Point (OWC).....	2624	353-4788	Nuclear Ordnance - 2d FSSG.....	SH 8	2994
Tarawa Terrace.....	2455	353-5576	Radio - Div.....	307	3879
NURSERY & LANDSCAPING			SCAMP - Div.....	336	1904 5310
	1105	3446	PLUMBING SHOP		
O				1202	3457
OFFICE MACHINE REPAIR	1101	2690	POST EXCHANGE - See Page 24		
OFFICER'S CLUB - COM (Open) - See Page 19			POST OFFICE		
ONSLOW BEACH AREA			Marine Corps Base		
Aid Station.....	BA 114	7283	Postal Officer.....	1770	5553 2204
Beach House & Cabanas Reservations.....	751	5694	Postal Chief.....	1770	5134
OIC/NCOIC.....	BA 144	7273	Superintendent of Mails.....	1770	1575
Cabana Caretaker.....	BA 147	7473	Mail Room Inspector.....	1770	1575
Chief Lifeguard.....	BA 144	7273	Superintendent, Camp Lejeune Branch.....	1770	5555
Enlisted Cabanas.....	BA 144	7184	MEMQ/MOQ Delivery.....	1770	1715
Enlisted Pavilion Snack Bar.....	BA 114	7126	Personnel LOCATOR (Tri-Command).....	1770	3074
Field Officers Beach House (Colonel).....	BA 120	7255	Unit #1 (Camp Johnson).....	M 129	6277
Field Officers Beach House(Maj/LtCol).....	BA 146	7485	Unit 2 (Rifle Range).....	RR 10	7180
Mess Hall.....	BA 103	7161	Unit #3 (Courthouse Bay).....	BB 6	7349
Mobile Cabana #2 Field Officers.....		7139	Unit #4 (Central Area).....	67	1057
Officers Cabana (Lt/Capt).....	BA 143	7385	Midway Park.....	4014	2784
Officers Pavilion Snack Bar.....	BA 115	7127	Tarawa Terrace.....		353-3185
Beach Detachment Quarters.....	3A 105	7265	2d Marine Division		
Pier Cabanas (E8/E9).....	SBA 142	7387	Postal Officer.....	1770	5554
Duty NCO.....	3A 144	7273	Postal Chief.....	1770	1505
ONSLOW BEACH MCX			Superintendent of Mails.....	1770	1505
	BA 101	7297	Personnel LOCATOR (Tri-Command).....	1770	3074
ONSLOW COUNTY WORKSHOP			2d FSSG		
	738	5451	Postal Officer.....	1770	5554
OUTPATIENT CLINICS (Dependents - Ctr Hosp) - See Page 82			Postal Chief.....	1770	1505
P			Superintendent Of Mails.....	1770	1505
PAINT SHOP	1202	2044			
PARACHUTE LOFT	107	1798			

Activity	Bldg	Phone
Mail Room Inspector.....	1770	5554
Supply/Embark NCO.....	1770	1505
Personnel LOCATOR (Tri-Command).....	1770	3074
Unit #1 (2d Marines).....	229	3598
Unit #2 (Hq Bn).....	344	1741
Unit #4 (Camp Geiger).....	TC1003	0776
Unit #5 (French Creek).....	FC 313	5250
Center Hospital		
Post Office.....	H 1	4591
PRESERVATION, PACKAGING & PACKING		
Officer in Charge.....	915	1628
		5230
Boxing & Crating Section.....	915	3187
Preservation Section.....	915	5224
Vehicle Preservation Section.....	909	3654
PREVENTIVE MEDICINE - REGIONAL		
Deputy Director.....	65	5707
Asst Deputy Director/Sanitation Officer.....	65	1930
Leading Chief.....	65	5707
		1930
Epidemiology/PPDs.....	65	2767
Training.....	65	2767
Health Cards.....	65	2767
PRINTING PLANT DIVISION - See Page 34		
PROPERTY CONTROL DIVISION - See Page 34		
PROTOCOL OFFICER.....	54	2804
PROVOST MARSHAL SECTION		
MILITARY POLICE EMERGENCY.....	3	2555
Animal Complaints.....	PT 33	2695
Complaints and Reports.....	3	2555
Stop-A-Crime.....	37	1666
Emergency Conversations will be recorded for accuracy.		
PROVOST MARSHAL		
Provost Marshal.....	3	2455
Deputy Provost Marshal.....	3	2455
Provost Marshal Secretary.....	3	2456
Provost Sergeant.....	3	2455
Internal Affairs.....	3	2455
Administrative Branch		
Admin Officer/NCOIC.....	3	2455
Photo/ID/Lamination.....	3B	1005
Weapons Registration.....	3B	1005
Pet Registration.....	3B	1005
Lost and Found.....	37	3635
Civilian/Retired ID Cards.....	3B	2727
		1005
MPIS.....	3	2457
Counterintelligence.....	3	5702
Operations Department		
Operations Officer.....	3	2555
Operations Chief.....	3	2555
Cross Country Chasers.....	37	2627

Activity	Bldg	Phone
Crime Prevention Unit.....	4000	1793
Animal Shelter.....	PT 33	2695
MP Headquarters, Jacksonville After 1800.....		346-4400
Traffic Branch		
Traffic Officer.....	37	5312
Traffic NCOIC.....	37	3635
Vehicle Impound NCO.....	37	3635
Duty Traffic Investigator.....	37	3635
Vehicle Registration.....	4000	1793
		5348
Visitor's Information Center.....	812	1344
Driver Improvement Training.....	1403	5725
Criminal Investigative Department		
OIC.....	3	2571
Chief Investigator.....	3	2572
Duty Investigator.....	3	2571
Narcotic Detector Dogs.....	PT 37	3915
Evidence Custodian.....	3	2571
Service Support Branch		
Supply NCOIC.....	3B	5494
Motor Transport Dispatcher.....	43	3626
Training Support.....	3	2455
Gates		
Main Gate.....	33	1821
Sneads Ferry Gate.....		7391
Triangle Outpost Gate.....		1589
Camp Geiger Gate.....		0143
Camp Johnson Gate.....		6141
Rifle Range Gate.....		7247
MCAS(H)/Camp Geiger		
Criminal Investigation Division.....	122	455-6639
Assistant Provost Marshal.....	122	455-6111
MCAS Desk Sergeant.....	122	455-6111
Main Gate MCAS (H).....		0849
Naval Investigative Service.....	122	455-6111
Main Gate Camp Geiger.....		0143
PUBLIC AFFAIRS		
Public Affairs Officer.....	302	5655
Public Affairs Chief.....	302	5655
Community Relations.....	302	2604
GLOBE.....	302	5680
Press Chief.....	302	5680
		5782
Radio - TV Section.....	302	5782
PUBLIC QUARTERS..... TT 43 2577		
PUBLIC VOUCHER BRANCH Disbursing..... 1005 3051		
PUBLIC WORKS DEPARTMENT		
Public Works Officer.....	1005	2581
Asst Public Works Officer.....	1005	2581
OICC/ROICC (See ROICC Listing)		
Secretary/Admin.....	1005	2581
Director Design Division.....	1005	2213
Architectural Branch.....	1005	3658
Civil Branch/Structural Branch.....	1005	3238
Electrical Branch.....	1005	3658
Government Inspector.....	B St.	2686
Mechanical Branch.....	1005	3238
Planning Branch.....	1005	1833

451-2818

John Jordan

Base Printing Plant

P-5

Activity	Bldg	Phone
Plans Files & Technical Records.....	1005	2818
Realty Specialist.....	1005	2818
		3238
Specifications & Estimating Branch.....	1005	5507
R		
RADIO STATIONS		
Amateur Radio Station (W4LEV).....	PT 5	5116
Radio Station Maintenance Chief.....	24	5802
RANGES Training Facilities - See Page 31		
RECEPTION CENTERS		
MCB.....	1	3048
Division.....	10	3057
2d FSSG.....	10	1761
RED CROSS		
Main Office.....	41	2173
		2182
		2720
		5159
After Duty Hours, Holidays, Sat & Sun.....		347-5191
REFRIGERATION SHOP	1202	3235
REGISTERED PUBLICATIONS - MCB	1	3563
REPORTS & MANAGEMENT	1005	5521
RESERVE INFORMATION OFFICE	57	2051
RESERVE SUPPORT UNIT Hq Bn MCB - See Page 40		
RESIDENT OIC OF CONSTRUCTION		
OIC/ROICC	1005	2581
Asst OICC/ROICC.....	1005	2581
Manager Inspection Branch.....	1005	2581
Manager Contracts Branch.....	1005	2581
Construction Inspection Br Hadnot Point.....	1005	2581
Public Works Department (See PW Listing)		
RIFLE RANGE DETACHMENT - See Page 40		
ROADS & GROUNDS	1105	2636
S		
S&C FILES	1	3563
SAFETY OFFICE		
Safety Manager	1403	5725
		3891
Occupational Safety.....	1403	5725
Traffic Safety Specialist.....	1403	5725
SALVAGE	Lot 203	5156
SANITATION - REFUSE AND GARBAGE	1105	2636
SASSY	1108	5207

Activity	Bldg	Phone
SCHOOLS - DEPENDENT		
Superintendent	855	2461
Associate Superintendent.....	855	2461
Budget Analyst.....	40A	2564
Food Services.....	4003	2133
Print Shop.....	4021	2553
Property & Supply Office.....	40A	2564
		2565
School's AV Technician.....	4003	5361
Maintenance Foreman.....	855	2461
Lejeune High School.....	825	2451
Lejeune Guidance Supervisor.....	825	2451
Brewster Junior High School.....	40	2561
Brewster Cafeteria.....	797	2561
Berkeley Manor Elementary School.....	5400	2575
Berkeley Manor Cafeteria.....	5400	2575
DeLalio Elementary School.....	TC 1500	0601
DeLalio Cafeteria.....	TC 1500	0602
Stone Street Elementary School.....	1943	2431
Stone Street Cafeteria.....	1943	2431
Tarawa Terrace #1 Elementary School.....	TT 60	2489
Tarawa Terrace #1 Cafeteria.....	TT 60	2489
Tarawa Terrace #2 Elementary School.....	TT 48	2588
Tarawa Terrace #2 Cafeteria.....	TT 48	2588
SCHOOLS - MILITARY		
Admin Procedure - Tri-Command.....	408	3361
Combat Engineer.....	BB 86	7328
Communication - FMFLant.....	TC 1038	0415
Disbursing.....	M 407	6246
Electronic - FMFLant.....	TC 1028	0121
Engineer Equipment.....	BB 93	7453
Food Service.....	M 324	6256
Gas Chamber - NBC School.....	TC 630	0365
Human Relations School.....	430	1092
MCSSS Instructor Training.....	M 422	6167
		6117
Motor Transport.....	M 611	6193
MVOC.....	M 522	6126
NBC School - FMFLant.....	TC 1143	0116
		0433
Staff NCO Academy.....	M 215	6284
SCOUTING COORDINATOR	2627	2276
SECOND MARINE DIVISION - See Page 41		
SELF SERVICE CENTER		
Officer in Charge.....	1606	5896
Accounting & Information.....	1606	3491
Blank Forms.....	1606	1667
Item Manager.....	1606	2306
SERVICE CLUBS		
Air Station.....	208	455-6661
Area No 2.....	225	3814
Area No 5.....	524	5294
Camp Geiger.....	TC 614	0270
Camp Johnson.....	M-134	0709
Central.....	62	1942
		2872
Courthouse Bay.....	BB 54	7397
French Creek.....	FC 318	1446
Industrial Area Enlisted Club.....	1006	3609
Onslow Beach.....	BA 114	7126
Rifle Range.....	RR 49	7146

S-T

Activity	Bldg	Phone
SERVICE SUPPORT SCHOOLS - See Page 38		
SHOP STORES BRANCH	1201	3413
SITTING SERVICE		
Camp Lejeune Sitting Service	712	353-5283
Center Hospital	H 1	4682
Nursery Midway Park	4025	5981
Nursery Tarawa Terrace	2455	353-5576
Paradise Point (OWC)	2624	353-4788
SKEET RANGE Special Services	PT 5	3889
SPECIAL SERVICES		
Athletic Officer	751	2061
Athletic Chief	751	3125
Bookkeeper	751	5195
Camper Trailer Section	1113	1368
Cash Collector	751	5824
Custodian Recreation Fund	751	5824
Golf Course Pro Shop	1915	5445
Maintenance Supervisor	1765	2819
Motor Transport	1120	5236
Personnel Office & Payroll	751	3762
Property Control Supervisor	1765	3863
Procurement Office	751	1455
Recreation Director	751	2094
Assistant Recreation Director	751	2094
Reservation Office	751	3535
		5694
Tickets, Campers, Fishing, Sea Shells, Campsites, Beach Cabanas, Trailers, Area #5 Picnic Area, and Camp Knox Picnic Area		
Assistant Special Services Officer	751	2106
Special Services Chief	751	3794
Stables	1944	2238
Storeroom	1765	3863
Women's Exercise Room	S-1725	1560
Duty NCO Field House	751	5694
SPECIAL SERVICES OFFICER	751	2108
STABLES	1944	2238
STAFF DUTY OFFICER MCB	1	2528
STAFF JUDGE ADVOCATE - See Page 35		
STAFF NCO ACADEMY	M 215	6115
STAFF NCO CLUBS		
Treasurer	322	2839
Hadnot Point Annex	322	1007
		1534
Camp Geiger Annex	TC-910	0274
Courthouse Bay Annex	BB 27	7462
Montford Point Annex	M 240	6180
		6123
Onslow Beach Annex	BA 113	7197
STAFF NCO QUARTERS, BSQ - See Page 17		
STEAM PLANT	1700	3627
STOP-A-CRIME	37	1666

Activity	Bldg	Phone
SUBSISTENCE BRANCH		
Officer in Charge	1116	2101
NCOIC	1116	3230
Nonperishable Stores	1116	3230
Perishable Stores	1300	3428
SUPPLY DEPARTMENT		
Assistant C/S Supply Services	1116	2535
Asst to AC/S Supply Services	1116	2535
Secretary	1116	2535
Administrative Officer	1116	2507
Supply Services Chief	1116	2507
Budget Analyst	1116	2507
Management Analyst	1116	2507
SWIMMING POOLS		
Area 2	236	2024
Area 5	540	2027
Montford Point	M 139	6281
T		
TARAWA TERRACE		
Chaplain	2791	5353
		2967
Commissary	2455	2787
		2074
Community Center	TT 44	2253
Consolidated Package Sales	2471	2275
Housing Office	TT 43	2577
Nursery	2455	353-5576
Post Office		353-3185
TAXI SERVICE		
Commercial	235	3674
Military	1407	1639
TEEN AGE CLUB	730	1521
TELEPHONE ACCOUNTS	1104	2531
TELEPHONE OFFICE		
Telephone Officer	1104	2531
Wire Chief	1104	2531
Telephone Accounts	1104	2531
Hours 0830 - 1530 Mon thru Fri		
Directory Information	1	1115
Telephone Chief Operator	1	3400
Telephone Repair	1	1114
THEATERS		
NCOIC/Information	19	1759
After Hours	19	2785
Camp Drive In	660	3242
Camp Geiger	TC 900	0265
Courthouse Bay Indoor	BB 2	7449
French Creek	FC 317	1075
Midway Park	4014	3181
Montford Point Drive-In	SM 175	6120
Naval Hospital	H 1	4622
Film Exchange	19	2785
THRIFT SHOP	1403	5591
(SNCO Wives Club)		
Hours - 0900 - 1400 Wed & Fri		

Activity	Bldg	Phone	Activity	Bldg	Phone
TIME OF DAY AND TEMPERATURE		1117	F-18 Range.....		2003
TOWERS			G-4 Range.....		3986
Bear Creek.....		1740	G-5/G-5A Range.....		7438
Brown Creek.....		7252	G-7 Range.....		3258
Fire Tower 1 - Hubert.....		1456	G-8 Range.....		2013
Fire Tower 2 - Sneads Ferry.....		7491	G-9 Range.....		2013
Fire Tower 3 - Dixon.....		347-1977	I-1 Range.....		7328
Fire Tower 4 - Deppe Hwy 17.....		347-3218	I-2 Range.....		7328
Fire Tower 5 - Engineer Stockade.....		3956	J-2 Range.....		7236
North Tower - Onslow Beach.....		7441	K-211 Range.....		0752
South Tower - Onslow Beach.....		7425	K-212 Range.....		0752
TRADER	751	3794	K-301 Range.....		0852
TRAFFIC BOARD - Base Inspector	4000	5807	K-302 Range.....		0561
TRAFFIC COURT	4000	1951	K-303 Range.....		0561
		1582	K-305 Range.....		0661
TRAFFIC INVESTIGATOR ProvMar	37	3635	K-309 Range.....		0661
TRAINING ALLOWANCE POOL	1317	5814	K-315 Range.....		0775
		1000	K-317 Range.....		0775
TRAINING Civilian Personnel	33	1539	K-319 Range.....		0875
TRAINING FACILITIES SECTION			K-321 Range.....		0875
Training Facilities Officer	1	5803	K-322 Range.....		0656
Training Facilities Chief.....	1	3920	K-323 Range.....		0656
Range Control Duty Officer.....	1	3064	K-325 Range.....		0556
Range Control.....	1	3064	K-402 Range.....		0852
Scheduling NCO.....	1	3064	K-405 Range.....		0755
Supply Admin.....	1	3920	K-406/K-406B Range.....		0755
Range Maintenance - Mainside.....	1410	3542	K-407 Range.....		0855
		5211	K-408 Range.....		0855
Range Maintenance Work Crew.....	1404	3331	NBC Training Trail.....		3518
EOD Officer.....	G 480	0118	TRAINING & AUDIOVISUAL SEPPORT CENTER - See Page 33		
		0382	TRIANGLE OUTPOST GATE		1589
Navy Boat Crew.....	1409	5046	TYPEWRITER REPAIR	1101	2690
WBGT Index Reading Station #1.....	1409	5046			
CS Chamber.....	934	3518	U		
Area 5 Training Tank (Swimming Pool).....	540	2027	USO Jacksonville		455-3411
Bear Creek Tower (Range BT-3).....		1740	UTILITIES OFFICER Base Maintenance	670	5161
Brown's Tower (Range BT-3).....		7252			
Onslow North Tower (Range BT-3).....		7441	V		
Onslow South Tower (Range E-1).....		7425	VETERINARIAN DIVISION - See Page 35		
Combat Town.....		7452	Veterinary Animal Clinic		
Observation Post #2 (Range G-10).....		5296	For Appt (Monday Only).....	TT 2451	1009
A-1 Range.....		6254	VISITOR'S INFORMATION CENTER	812	1344
BO-12 Range.....		0758			
D-6 Range.....		3738	W		
D-9 Range.....		3889	WATER PLANT & LABORATORY Base Main	20	5988
D-29 Range.....		2002	WEATHER BUREAU - MCAS(H)		455-6322
D-30 Range.....		2009	WET BULB READING STATION 1	1	3920
F-2 Range.....		2007			
F-3 Range.....		2001	X		
F-4 Range.....		2007	X-RAY - Base Medical Dept	15	1540
F-5 Range.....		2007			
F-6 Range.....		2011			
F-9 Range.....		2006			
F-10 Range.....		2006			
F-11 Range.....		2005			
F-12 Range.....		2004			
F-13 Range.....		2011			
F-17 Range.....		2011			

DON'T BE A TELEPHONE HOG

USE—don't ABUSE official telephone service

DIAL NUMBER AND
ANSWER PERSONALLY

SHARE FACILITIES



FORM GOOD TELEPHONE HABITS

PLAN TOLL CALLS - CUT COSTS

MARINE CORPS BASE

Organization	Bldg	Phone
HEADQUARTERS MARINE CORPS BASE		
COMMANDING GENERAL	1	2526
Aide-de-Camp.....	1	2527
Secretary to the Commanding General.....	1	2526
Sergeant Major.....	1	2603
INSPECTOR	1	1850 2718
Base Traffic Board.....	4000	5807
Base Traffic Court.....	4000	1951
		1582
Military Magistrate.....	1041	1979
INFORMATION COORDINATOR, MCB	1	3605
CHIEF OF STAFF	1	2523 2528
Staff Secretary.....	1	2523
Staff Duty Officer (After Working Hours).....	1	2528
		2527
Staff Duty NCO.....	1	2526
ASSISTANT CHIEFS OF STAFF		
MANPOWER SECTION		
Assistant Chief of Staff Manpower.....	1	2220
Secretary to AC/S Manpower.....	1	2385
Asst Assistant Chief of Staff Manpower.....	1	2220
Admin Chief.....	1	2218
Administrative Control Unit.....	1101	3037 2708
Deputy EEO Officer.....	1	2385
Manpower Utilization Specialist.....	1	2385
Management Assistance Office.....	12	5521
PERSONNEL SERVICES SECTION		
Assistant Chief of Staff Personnel Services.....	1	2524
Secretary.....	1	2524
Asst Personnel Services Officer.....	1	2524
Personnel Services Coordinator.....	1	2524
Administrative Chief.....	1	2524
Family Assistance Officer.....	41	5417 1362
Special Projects Officer.....	1	2524
TRAINING SERVICES SECTION		
Assistant Chief of Staff Training.....	1	5326
Asst to Asst Chief of Staff Training.....	1	5720
Secretary to AC/S Training.....	1	5326
Operations Chief.....	1	5720
Training Officer.....	1	3482
Training Chief.....	1	5276
Schools NCO.....	1	5276
Drug/Alcohol NCOIC.....	14	5733
Disaster Control Center (When Activated)	1	3520 5326
Education Offices		
Education Services Coordinator - MCB.....	63	5512
Education Chief.....	63	3091
Administrative Assistant.....	63	3091
BSEP Coordinator.....	63	2391
DANTES Testing Center.....	63	3091

Organization	Bldg	Phone
Education Officer - Division.....	63	1382 2158
	338	1051
Education NCOIC - 2d FSSG.....	63	3091
Education Officer - MCASH.....	312	455-6153
Coastal Carolina Community College - Jacksonville		455-1221
East Carolina University Director.....	63	5864 5865
Golden Gate University.....	63	2736
Pepperdine University.....	63	2355
Southern Illinois University.....	H 1	5575
University of Southern California.....	63	5688
Training & Audiovisual Support Center		
Training & Audiovisual Support Officer.....	54	5416
Training & Audiovisual Support Chief.....	54	5416
Visual Information Specialist.....	54	5416
Photographic Officer.....	54	1972
Duty Photographer (After Hours).....	54	3733
Audiovisual Library.....	54	1516
Customer Service Desk.....	54	1593
TAVSC Supply Officer.....	54	1516
TAVSC Electronic Repair.....	1404	5479
Training Facilities		
Training Facilities Officer.....	1	5803
Training Facilities Chief.....	1	3920
CS Chamber.....	934	3518
Range Maintenance.....	1410	5211
LOGISTICS DEPARTMENT		
Assistant Chief of Staff Logistics.....	1116	2535
Secretary.....	1116	2535
Asst to ACofS Logistics.....	1116	2535
Civilian Personnel Office.....	1116	3500
Financial Section	1116	2535
Operations Section		
Operations Officer.....	1116	2536
Assistant Operations.....	1116	2536
Secretary.....	1116	2536
Inventory Supervisor.....	1011	5180
Commissary Division		
Hours of Operation.....	1200	5239
Commissary Officer.....	1301	2836
Secretary.....	1301	5561
Accounting.....	1301	2640
Administrative Office.....	1301	2626
Purchasing.....	1301	5576 2231
Warehouse.....	1201	5580
Commissary Store (Hadnot Point)		
Commissary Store Manager.....	1200	2896
Collection Agent.....	1200	2172
Grocery-Produce Department Manager.....	1200	2381
Meat Department Foreman.....	1200	2381
Produce Department Foreman.....	1200	2381
Receiving.....	1200	2381
Sales Area Supervisor.....	1200	2172
Tarawa Terrace Commissary Store		
Commissary Store Manager.....	2455	2787
Collection Agent.....	2455	2787
Grocery/Produce Manager.....	2455	2787
Meat Department Foreman.....	2455	2074

BASE ORGANIZATIONS

Organization	Bldg.	Phone
Produce Department Foreman.....	2455	2074
Receiving.....	2455	2074
Sales Area Supervisor.....	2455	2787
Branch Commissary Store (MCAS)(H)		
Commissary Store Manager.....	414	455-6395
Meat Department.....	414	455-6396
Contracting Division		
Contracting Officer.....	1211	5520
Contracting Officer/Small Business.....	1211	5962
NCOIC.....	1211	5813
Imprest Fund Cashier.....	1211	2165
Buying Unit 1.....	1211	2186
		5095
Buying Unit 2.....	1211	2332
		5044
Operations/Document Control.....	1211	5845
		2390
DSSC Division		
Officer in Charge.....	1011	5762
		5301
Assistant OIC.....	1011	5762
NCOIC.....	1011	3565
Ammunition Branch		
Officer in Charge.....	SH 7	2114
NCOIC.....	SH 7	3812
Main Ammo Dump Guard.....	1117	1442
	FAD-1	2949
Clothing Branch		
Officer in Charge.....	1212	2802
		3170
NCOIC.....	1212	3170
Bulk Storage.....	1212	1678
Camp Geiger Clothing Store.....	TC 732	0459
Customer Service Branch	1011	5406
		3232
Data Transcribing Branch		
OIC.....	1011	3310
Financial Branch	1011	1654
Self Service Center Branch		
Officer in Charge.....	1606	5896
NCOIC.....	1606	3491
Blank Forms Section.....	1606	1667
Warehouse.....	1606	2306
Shop Stores Branch		
Officer in Charge.....	1201	3413
Issue Points		
Black Oil Pump House.....	1706	1422
Camp Geiger Fuel.....	TC 364	0269
Fuel Issue (MMLY20).....	1002	5186
Heavy Equipment (MMLV69).....	780	5913
Lot 140 (Paint Locker).....	Lot 140	1712
Lot 201 (MMLV72).....	Lot 201	1625
Lumber Yard (MMLV70).....	1302	5105
Maintenance (MLV65).....	1201	1975
Maintenance BPA.....	1201	5414
Maintenance Receiving (MMLV65).....	1201	1789
Maintenance Issue Counter (MMLV65).....	1201	1353
Maintenance Projects.....	1201	3684
MCAS (MLV73).....	AS 124	455-6529
Packing & Preservation (MML V67).....	915	5224
Packing & Preservation (MMLV67).....	915	3187
Tarawa Terrace (MMLV71).....	TT 49	5885
Tire Shop (MLV66).....	1503	3494

Organization	Bldg	Phone
Subsistence Branch		
Officer in Charge.....	1116	2101
		2054
Perishable Stores.....	1300	3428
Non-Perishable Stores.....	1116	3134
Systems Management and Development	1011	2628
		1713
		3182
		2821
Technical & Research Branch		
Officer in Charge.....	1011	5917
Federal Group 10-46.....	1011	5163
Federal Group 47-56.....	1011	5163
Federal Group 58-66.....	1011	5172
Federal Group 67-99.....	1011	5172
Food Service Division - MCB		
Food Services Officer - MCB.....	1116	2716
Base Food Services Operations Officer.....	1116	1567
Base Food Technician.....	1116	1567
Accounting Section.....	1116	3101
Collection Agent.....	1116	3101
Financial Status of Dining Facilities.....	1116	3101
Man/Day Fed Reports.....	1116	3101
Food Service Property Officer.....	1116	2851
Laundry Division		
Laundry Plant Manager.....	1500	5628
Laundry General Foreman.....	1500	5628
Laundry Chief.....	1500	1595
Supply Clerk.....	1500	1595
Receiving (Gov't Linen).....	1500	3504
Receiving Department (Personal Bundles).....	1500	5168
Shipping (Gov't Linen).....	1500	3251
Shipping Department (Personal Bundles).....	1500	5168
Camp Geiger Call Office.....	TC 834	0552
Camp Geiger Rec/Ship (Gov't Linen).....	TC 834	0552
Printing Plant Division		
Officer in Charge.....	80	5919
Supervisory Printing Specialist.....	80	5131
Delivery and Supply.....	80	1564
Property Control Division		
Base Property Control Officer.....	1101	5513
Assistant Base Property Control Officer.....	1011	3061
Supply Chief.....	1101	3061
Custody Unit.....	1101	3063
Issue Control Section.....	1101	3062
Office Machine Repair Shop.....	1404	5951
Office Machine Repair (Service Calls).....	1101	2690
Procurement Section.....	1101	3061
Receipt Section.....	1101	3061
Warehouse.....	1101	3804
	1316	1548
Washer/Dryer Repair Service Calls.....	1101	2651
Traffic Management Division		
Transportation Officer.....	1011	2541
Claims Unit.....	1011	2654
Quality Assurance Unit.....	1011	2543
Receiving Unit.....	1011	3081
Shipping Unit.....	1011	2647
		2654
Personal Effects & Baggage.....	1011	3671
Self-Move Unit.....	1011	1367
		2377

BASE ORGANIZATIONS

Organization	Bldg	Phone
Freight Transportation Section		
General Foreman.....	1011	2542
Freight Processing Unit.....	Lot 201	3551
Freight Receipt/Claims.....	1011	2542
Freight Shipment.....	1011	2542
Warehouse Receiving Unit.....	1011	5245
Warehouse Shipping Unit.....	915	1585
Passenger Section.....	233	5311
		1971
Receipts Control Branch		
Officer in Charge.....	1011	5906
NCOIC.....	1011	5906
Contract Handling Section.....	1011	3140
Financial Edit Unit.....	1011	2798
Inspection.....	1011	3106
Issue Office/Warehouse.....	1011	3465
MML-999.....	1011	1507
Veterinarian Division		
Veterinarian.....	1300	1846
Veterinary Food Inspection Service.....	1300	5915
FACILITIES SECTION		
Assistant Chief of Staff Facilities.....	1	3034
		2544
Secretary.....	1	3034
Asst. to Asst. C/S Facilities.....	1	3034
Facilities Chief.....	1	3034
Equipment Maint. Management Officer.....	1	3034
Facilities Plans/Programs Officer.....	1	3034
COMPTROLLER SECTION		
Assistant Chief of Staff Comptroller.....	1	2427
Secretary.....	1	2427
Deputy Comptroller.....	1	2427
Accounting Officer.....	1005	2373
Budget Officer.....	1	3022
Disbursing Officer.....	1005	2815
		3051
Internal Review.....	1	2327
		1779
ADJUTANT SECTION		
Adjutant.....	1	2414
Secretary.....	1	2414
Administrative Chief.....	1	3031
Absentee Processing Unit.....	1	3031
Administrative Discharge Unit.....	1	3031
Casualty Assistance Officer.....	1	2414
Mail and Files.....	1	3806
Classified Files Unit.....	1	3563
Administrative Procedures Section		
Admin Procedures Officer/NCOIC.....	408	2202
Tri-Command Admin School.....	408	3361
Admin RIC Insp.....	408	3361
Admin Discharge Section.....	408	3361
BASE POSTAL OFFICER - See Page 27		
PERSONNEL SECTION		
Personnel Officer.....	1	2712
Assistant Personnel Officer.....	1	3048
Personnel Chief.....	1	3048
Admin Chief.....	1	3048

Organization	Bldg	Phone
Enlisted Receiving.....	1	3048
Order Writing Section.....	1	3048
Area Aptitude.....	1	3048
Schools/Reservists Section.....	1	3048
After 1630.....	10	3057
STAFF JUDGE ADVOCATE OFFICE		
Staff Judge Advocate.....	66	5675
Asst Staff Judge Advocate.....	66	5675
Secretary.....	66	5675
Military Affairs Officer.....	66	5383
Legal Administrative Officer.....	66	5177
Legal Chief.....	66	5177
Review Section.....	66	5675
Trial Counsel.....	66	3619
		2704
Defense Counsel.....	66	5687
		3218
Court Reporters.....	66	1058
Civil Process.....	66	5384
		5860

HEADQUARTERS BATTALION

COMMANDING OFFICER.....	50	5403
Executive Officer.....	50	3381
Sergeant Major.....	50	3381
Adjutant.....	50	3381
Bn. Admin.....	HP 53	2016
		5262
S-3.....	50	1802
S-3 Chief.....	50	3773
S-4.....	7	3852
Administrative Chief.....	50	3381
Career Planner.....	50	1556
Central Files.....	50	3381
Chaplain.....	60	2630
Dining Facility.....	9	5244
		1737
Legal Officer.....	50	3873
Legal Chief.....	50	5128
Police Sergeant.....	7	1079
Battalion Special Services.....	7	1079
Supply Officer.....	11	1491
Supply Chief.....	11	1491
Supply Storeroom.....	11	3732
Duty Clerk.....	50	3381
Staff Duty Officer.....	50	3381
Officer of the Day.....	50	3381
HEADQUARTERS COMPANY		
Commanding Officer.....	HP 55	2945
Executive Officer.....	HP 55	2945
1st Sergeant.....	HP 55	3250
Gunnery Sergeant.....	HP 55	3250
Duty NCO.....	HP 55	1781
Duty NCO.....	HP 53	5262
SUB UNIT 2 (CASUAL SECTION)		
Officer in Charge.....	60	2301
1st Sergeant.....	60	2072
Administrative Chief.....	60	2072
Company Gunnery Sergeant.....	60	2072
Duty NCO.....	HP 53	5262

BASE ORGANIZATIONS

Organization	Bldg.	Phone
MILITARY POLICE COMPANY		
Commanding Officer.....	HP 51	1614
Executive Officer.....	HP 51	1614
1st Sergeant.....	HP 51	5210
Company Gunnery Sergeant.....	HP 51	5210
Duty NCO.....	HP 51	1614

SUPPORT BATTALION

COMMANDING OFFICER.....	1011	2384
Executive Officer.....	1011	2384
Adjutant/Legal Officer.....	1011	5606
Sergeant Major.....	1011	5221
S-1		
Personnel Officer.....	1011	3130
		5721
Admin Chief.....	1011	5721
Personnel Chief.....	1011	3130
Unit Diary.....	1011	3154
SRB Clerk.....	1011	3154
Separation Clerk.....	1011	1341
Legal Clerk.....	1011	3130
Career Planning NCO.....	1011	1755
S-3		
Training Officer.....	1011	1936
		5017
Training Chief.....	1011	1936
Bn Drug and Alcohol Counselor.....	1340	1553
S-4		
S-4 Officer.....	1011	5247
S-4 Chief.....	1011	5247
Supply Officer.....	1117	5275
Supply Chief.....	1117	5275
Bn Amory.....	1117	5275
Warehouse Chief.....	1117	3107
Dining Facility.....	1209	3819
Officer of the Day.....	1011	5606

SUPPORT COMPANY

Commanding Officer.....	1140	2969
Executive Officer.....	1340	1553
1st Sergeant.....	1140	5297
Company Gunnery Sergeant.....	1140	5297
Sgt of the Guard/Main Ammo Dump.....	1117	1442
Duty NCO.....	1140	5297
Duty NCO.....	1340	1553

CORRECTION COMPANY

Commanding Officer.....	1041	5920
Executive Officer.....	1041	1308
Sergeant Major.....	1041	5148
Career Planner.....	1041	1479
Training.....	1041	1479
Duty NCO.....	1042	1562

**CAMP GEIGER
AREA COMMAND**

COMMANDING OFFICER.....	TC 704	0114
Executive Officer.....	TC 704	0585
Sergeant Major.....	TC 704	0585
Deputy for Camp Affairs.....	G 530	0216
NCOIC.....	G 530	0194

Organization	Bldg.	Phone
Emergency Maintenance.....	G 530	0221
Area Guard Officer/Chief.....	G 521	0177
Post 5.....		0134
Sgt-of-the-Guard/Commander-of-the-Guard..	G 521	0177
Special Services Officer.....	TC 748	0330
Area Maint/Police Shed NCOIC.....	TC 832	0245
Area Maintenance Tool Room.....	TC 832	0245

Bank, First Citizens Bank & Trust Company

Manager.....	TC 900	0500
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Chaplain.....	TC 601	0794
Protestant Chaplain.....	TC 601	0778

Clothing Sales.....	TC 732	0459
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Dining Facility Section

Mess Officer/Food Service Officer.....	G 640	0369
Mess Sergeant.....	G 640	0438
Duty Cook.....	G 640	0438

Dispensary

Medical Officer.....	G 770	0595
Leading Chief.....	G 770	0371
		0105

Physical Examination Section.....

Health Records.....	G 770	0371
2d FSSG Health Records.....	G 770	0322
Sick Call Information.....	G 770	0322
Laboratory.....	G 770	0371
Pharmacy.....	G 770	0322
Podiatry.....	G 770	0595
X-Ray.....	G 770	0371
Duty Corpsman.....	G 770	0595
Emergency Ambulance Assistance.....	G 770	0136
Permanent Personnel Information.....	G 770	0371
Dental Officer.....	G 770	0740
		0657

Dental Appointments.....	G 770	0740
Dental Trailer.....	TC-754	0496

EOD Officer.....	G 480	0118
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Laundry, Camp Geiger Annex.....	TC 834	0552
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Marine Corps Exchange

Barber Shop.....	TC 910	0744
Gas Station.....	TC 912	0690
Geiger Exchange.....	TC 910	0793
Service Club.....	TC 614	0270
NCO Club.....	G 550	0591

Pistol Range.....	BO 012	0758
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Post Office.....	TC1003	0776
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Provost Marshal Section

Assistant Provost Marshal.....	122	455-6111
Desk Sergeant.....	122	455-6111
Main Gate.....	TC 306	0143
North Gate.....	Post 10	0370

Special Services (Also see MCX)

Special Services NCOIC.....	TC 748	0330
Special Services Rec Room.....	TC 749	0170
Special Services Gym.....	TC 775	0131

Staff NCO Club.....	TC 910	0274
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BASE ORGANIZATIONS

Organization	Bldg.	Phone
FIELD MEDICAL SERVICE SCHOOL		
Commanding Officer	M 105	6203
Executive Officer.....	M 105	6202
Command Master Chief.....	M-105	6203
Administrative Officer.....	M-105	6202
Assistant Administrative Officer.....	M-105	6237
Administrative/Record Officer.....	M-105	6237
Armory.....	M 308	6149
Chief Master at Arms.....	M 311	6138
Barracks Master at Arms.....	M-311	6138
Marine Supply.....	M 314	6279
Medical Supply.....	M 151	6240
Military Training Officer.....	M 104	6291
Student Barracks.....	M 311	6183
	M 318	6252
Training Officer.....	M 104	6122
		6291
Assistant Training Officer.....	M-104	6291
		0882
Training Section.....	M 104	6291
Training Support Branch.....	M-151	6240
Chief of the Day (Duty NCO)	M-311	6138

FIELD SUPPLY MAINTENANCE & ANALYSIS OFFICE ONE

Officer in Charge	M 129	6213
Asst Officer in Charge.....	M 129	6213
NCOIC.....	M 129	6162

**UNITED STATES MARINE CORPS
INFANTRY TRAINING SCHOOL**

Commanding Officer	TC 846	0206
Executive Officer.....	TC 846	0710
Sgt Major.....	TC 846	0285
Adjutant/Legal.....	TC 846	0179
Admin Chief.....	TC 846	0179
Officer of the Day	TC 846	0206
Training Section		
Director of Training.....	TC 847	0344
		0263
Chief Instructor.....	TC 847	0344
Operations Chief.....	TC 847	0344
Training Aids.....	TC 846	0285
Weapons Instructors Section.....	TC 847	0253
Support Section		
Logistics Officer.....	TC 840	0348
Logistics Chief.....	TC 840	0461
Supply Officer.....	TC 817	0431
Supply Chief.....	TC 817	0449
Motor Transport Chief.....	TC 809	0478
Motor Transport Office.....	TC 809	0260
Motor Transport Dispatcher.....	TC 871	0373
Armory/Comm Section.....	TC 816	0378
Medical Section.....	G 770	0322
		0371

Organization	Bldg.	Phone
Headquarters Company		
Commanding Officer	TC 853	0300
Personnel Officer.....	TC 853	0231
1st Sergeant.....	TC 853	0137
Admin Chief.....	TC 853	0452
		0137
Company 'A'		
Commanding Officer	TC 839	0327
Company 'B'		
Commanding Officer	TC 827	0235

**MARINE CORPS ENGINEER SCHOOL
COURTHOUSE BAY AREA
AREA COMMAND**

AREA ACTIVITIES

AREA COMMANDER	BB 28	7201
Assistant Area Commander.....	BB 28	7136
Area Sergeant Major.....	BB 28	7136
Adjutant.....	BB 28	7200
Administrative Chief.....	BB 28	7134
Bank.....		7317
BOQ Office.....	BB 45	7384
Residents.....	BB 45	7378
Boathouse.....	BB 46	7386
Chaplain.....	BB 16	7304
Cleaning/Pressing Shop.....	BB 16	7415
Commissioned Officers Mess Annex(Open).....	BB 45	7372
2d FSSG Dental Trailer.....	A-3	7474
Dining Facility.....	BB 7	7148
Disbursing.....	BB 8	7258
		7284
Dispensary		
Medical Officer.....	BB 10	7461
Area Medical Chief.....	BB 10	7206
Records Office (During Working Hours).....	BB 10	7365
		7338
Dental Officer.....	BB 10	7147
Duty Corpsman (After Working Hours).....	BB 10	7338
Enlisted Service Club.....	BB 54	7397
Fire Station (Station 7).....	BB 8	7221
Mail Room/Reproduction.....	BB 208	7175
Marine Corps Exchange.....	BB 3	7357
Police Shed.....	BB 31	7262
Post Office.....	BB 6	7349
Service Station.....	BB 177	7345
Special Services/Physical Fitness Center.....	BB 30	7368
Staff NCO Club Annex.....	BB 27	7462
Theater.....	BB 2	7449
Area Guard.....	BB 225	7325
Commander of the Guard.....	BB 225	7325
Officer of the Day	BB 28	7200

HEADQUARTERS MARINE CORPS ENGINEER SCHOOL

COMMANDING OFFICER	BB 28	7201
Executive Officer.....	BB 28	7136
Sergeant Major.....	BB 28	7136
Staff Duty Officer.....	BB 28	7200
Administrative Department		
Director/Adjutant.....	BB 28	7200

BASE ORGANIZATIONS

Organization	Bldg	Phone
MARINE CORPS ENGINEER SCHOOL (Continued)		
Admin.....	BB 250	7470
Admin Chief.....	BB 28	7134
Personnel Officer.....	BB 250	7151
Personnel Chief.....	BB 250	7151
Order Writing.....	BB 250	7470
Personnel Records.....	BB 250	7151
Legal Chief.....	BB 250	7470
Locator.....	BB 28	7134
Career Planner.....	BB 30	7222
		7101
Disbursing Officer.....	BB 8	7258
Disbursing Chief.....	BB 8	7207
Staff Duty Clerk.....	BB 28	7134
Academic Department		
Director of Instruction.....	BB 28	7100
Academic Operations Chief.....	BB 28	7468
Course Programmers.....	BB 28	7468
Education Advisor.....	BB 250	7151
Student Records.....	BB 28	7134
Academic Training Support Unit.....	BB 15	7238
Training Officer.....	BB 15	7153
Training Aids Support Section.....	BB 15	7360
Support Department		
Director.....	BB 28	7410
Fiscal Officer.....	BB 31	7326
Fiscal Chief.....	BB 31	7347
Logistics Chief.....	BB 28	7275
Supply Officer.....	BB 31	7326
Supply Chief.....	BB 31	7313
Property Section.....	BB 31	7347
Engineer Equipment Maintenance Unit.....	BB 51	7233
		7137
Construction NCOIC.....	BB 48	7486
Base Motor Transport Sub Pool.....	BB 73	7394
Tool Room.....	BB 51	7233
HEADQUARTERS AND SERVICE COMPANY		
Commanding Officer.....	BB 255	7315
1st Sergeant.....	BB 255	7364
Co Gunnery Sergeant.....	BB 255	7315
Administrative Chief.....	BB 255	7315
Duty NCO (After Working Hours).....	BB 255	7363
COMBAT ENGINEER INSTRUCTION COMPANY		
Commanding Officer.....	BB 37	7405
1st Sergeant.....	BB 37	7405
Company Gunnery Sergeant.....	BB 37	7405
Administrative Clerk.....	BB 37	7405
Senior Instructor.....	BB 37	7185
Demo Range.....	BB 86	7328
Construction Shop.....	BB 48	7486
Rigging Section/Shore Party.....	BB 48	7460
Duty NCO (After Working Hours).....	BB 255	7363
ENGINEER EQUIPMENT INSTRUCTION COMPANY		
Commanding Officer.....	BB 137	7411
1st Sergeant.....	BB 137	7251
Administrative Clerk.....	BB 137	7251
Company Gunnery Sergeant.....	BB 137	7251
Academic Officer/NCOIC.....	BB 136	7154
		7414
Supply NCO.....	BB 136	7154
		7414
Engine Section.....	BB 71	7453

Organization	Bldg.	Phone
Main Management Section.....	BB 208	7481
Operations Section.....	BB 51	7370
Power Train Section.....	BB 50	7353
Welding School.....	BB 52	7269
Duty NCO (After Working Hours).....	BB 259	7135
UTILITIES INSTRUCTION COMPANY		
Commanding Officer.....	BB 38	7303
Executive Officer.....	BB 38	7321
1st Sergeant.....	BB 38	7321
Administrative Clerk.....	BB 38	7321
Academic Department.....	BB 38	7303
Electronic Equipment Repair.....	BB-138	7268
Electronic Section.....	BB-139	7243
Plumbing Section.....	BB 32	7145
Refrigeration Section.....	BB-49	7286
Duty NCO.....	BB 32	7135

**MARINE CORPS SERVICE SUPPORT SCHOOLS
CAMP JOHNSON AREA
AREA COMMAND**

AREA COMMANDER.....	M 131	6101
Assistant Area Commander.....	M 131	0503
Area Sergeant Major.....	M 131	6182
Area Facilities Officer.....	M 131	0626
Airline Ticket Office.....	M 419	0711
Camp Johnson Branch Clinics		
Medical Officer.....	M 128	6104
Check In/Appointments.....	M 128	6175
Physicians Assistant.....	M 128	6104
Laboratory.....	M 128	6238
Pharmacy.....	M 128	6154
BOQ (Lobby).....	M 231	6179
	M 232	6221
	M 233	6184
BOQ Duty NCO.....	M 231	6253
Chaplain.....	M 116	0507
Dental Officer.....	M128	6288
Disbursing Officer.....	M 401	6106
Enlisted Accounts.....	M 401	6257
Firehouse 8.....	M 303	6132
Library.....	M 321	6171
Maintenance		
Maintenance (Trouble Calls).....	M 131	6142
Marine Corps Exchange Activities		
Exchange Officer.....		0822
Exchange.....		0822
Barber Shop.....	M 19	6260
Cleaning & Pressing Shop.....	M 602	0737
Service Club.....	M 134	0709
Service Station.....	M 171	0832
Theater Snack Bar.....	SM 175	6161
Mess Officer.....	M 324	6157
Dining Facilities.....	M 424	6176
Post Office.....	M 129	6277
Special Services Activities		
Special Services Officer.....	M 129	6245
Gymnasium.....	M 129	6245
NCO Club.....	M 100	0838
Physical Fitness Center.....	M 319	6259
Swimming Pool.....	M 139	6281
Staff NCO Quarters.....	M 128	6265
BSQ Duty NCO.....	M 234	6227

BASE ORGANIZATIONS

Organization	Bldg.	Phone
Permanent Personnel.....	M 234	6227
	M 236	6273
	M 130	6276
Staff NCO Club.....	M 240	6123
Student Personnel.....	M 128	6292
Woman Marine Barracks.....	M 514	6153
Area Guard		
Security Officer.....	M 302	0688
Commander of the Guard/Guard Chief.....	M 302	0688
Desk Sergeant.....	M 302	0688
Main Gate Sentry.....	M 169	6141
Rear Gate Sentry.....	M 325	6275
Officer of the Day.....	M 302	6230

HEADQUARTERS MC SERVICE SUPPORT SCHOOLS

Organization	Bldg.	Phone
COMMANDING OFFICER/DIRECTOR.....	M 131	6101
Executive Officer/Assistant Director.....	M 131	0503
Secretary.....	M 131	6101
Sergeant Major.....	M 131	6182
S-1/Adjutant.....	M 131	0503
Personnel Officer.....	M 130	6195
Administrative Officer.....	M 130	6195
Armory.....	M 308	6269
Schools Personnel Chief.....	M 130	6195
Career Planning NCO.....	M 130	6218
Legal Officer.....	M 131	0502
		6251
Locator.....	M 131	6234
Order Writing (Permanent Personnel).....	M 130	6194
Order Writing (Student Personnel).....	M 130	6191
Permanent Personnel.....	M 130	6194
School Files.....	M 131	6234
Student Admin Section.....	M 130	6218
Student Personnel.....	M 130	6194
Duty Clerk.....	M 131	6234
S-3/Director of Instruction.....	M 131	6100
Assistant S-3 Officer.....	M 131	6100
Instructor.....	M 422	6167
Management School (IMS).....	M 422	6117
Operations Chief.....	M 131	6163
Academic Training Unit.....	M 131	6100
Military Training Unit.....	M 131	6233
S-4 Officer.....	M 131	0626
S-4 Chief.....	M 131	6142
Supply Officer.....	M 112	6205
Supply Chief.....	M 112	6188
Unit Property Officer (UPO).....	M 112	6205
Schools Reproduction Center.....	M 131	6142
Procurement Section.....	M 112	6205
Property Section.....	M 112	6188
Warehouse.....	M 112	6188

HEADQUARTERS AND SERVICE COMPANY

Organization	Bldg.	Phone
Commanding Officer.....	M 522	6139
Executive Officer.....	M 522	0897
1st Sergeant.....	M 522	6139
		0897
Admin Chief.....	M 522	6139
		0897
Company Gunnery Sergeant.....	M 522	6140
Casual Section.....	M 521	6159
Maintenance Chief.....	M 301	6137
Police and Property Sgt.....	M 522	6259
Training NCO.....	M 522	6126
Duty NCO (After 1630).....	M 522	6187

Organization	Bldg.	Phone
FOOD SERVICE SCHOOL COMPANY		
Commanding Officer.....	M 324	0636
Executive Officer.....	M 324	0636
1st Sergeant.....	M 324	6157
Administrative Chief.....	M 324	6157
Academic Officer.....	M 324	6112
Academic Chief.....	M 324	6151
Career Planner.....	M 324	6264
Field Phase Training Instructor.....	M 520	6226
Officer in Charge Bakers Course.....	M 324	6264
Officer in Charge Cooks Course.....	M 324	6264
Police Sergeant.....	M 613	6130
Supply Chief.....	M 613	6130
Testing NCO.....	M 324	6151
Company Training NCO.....	M 324	0636
Duty NCO.....	M 502	6145

MOTOR TRANSPORT SCHOOL COMPANY

Organization	Bldg.	Phone
Commanding Officer.....	M 611	6208
		6160
Executive Officer.....	M 611	6160
		6208
1st Sergeant.....	M 611	6160
		6208
Administrative Section.....	M 611	6160
		0881
Training NCO/Career Planner.....	M 611	6193
Academic Officer.....	M 603A	6214
		6282
Academic Chief.....	M 603A	6214
		6282
Academic Testing.....	M 620	6239
Course Content Review Board.....	M 603A	6214
		6282
Plans & Programs.....	M 603A	6214
		6282
Class Commanders.....	M 601	6283
Counselor/Troop Handler.....	M 601	6283
Field Performance/Testing.....	M 121	6152
Supply Section.....	M 619	6247
MT Processing.....	M 604	6121
Police & Property NCO.....	M 606	6185

Operation Instructional Section.....

OIS Licensing NCO.....	M 307	6289
OIS Field Training Unit.....	M 323	6164
OIS Field Training Unit.....	M 122	6156
OIS Field Training Unit Dispatcher.....	M 144	6298

Automotive Mechanical Instructors Section.....

ECII Maintenance Officer.....	M 102	6290
AMIS Power Plant Unit.....	M 102	0611
AMIS Fuel & Electric.....	M 123	6192
AMIS Brakes & Chassis.....	M 123	6222
	M 326	6267
	M 321	6261
AMIS Engine Bay.....	M 101	6146
AMIS Advanced Motor Transport Instruction...	M 202	6293
AMIS Heavy Equipment Lab.....	M 201	6131

Maintenance Instructional Section.....

MIS Annual PM Shop.....	M 126	6250
MIS Welding Shop.....	M 327	6255
MIS URR.....	M 202	6181
MIS URR.....	M 203	6165
MIS Maintenance Peculiar.....	M 214	6262

BASE ORGANIZATIONS

Organization	Bldg.	Phone
MARINE CORPS SERVICE SUPPORT SCHOOLS (Continued)		
Transportation & Maintenance Section	M 119	6189
T & M Dispatcher	M 119	6124
Maintenance Shop/Parts Room	M 121	6152
Duty NCO	M 604	6121
SUPPLY SCHOOL COMPANY		
Commanding Officer	M 418	0635
Executive Officer	M 418	6241
1st Sergeant	M 418	0635
Administrative Chief	M 418	6241
Casual Section	M 416	6125
Mail Room	M 408	6274
Property Section	M 419	6158
Training	M418	6178
Staff Duty NCO	M416	6125
Academic Section		
Officer in Charge	M 418	6178
Academic Chief	M 418	6236
Leadership Tech Lab	M 132	6249
Publications Unit	M 402	6135
Basic Supply Instruction Section		
Officer in Charge/Counselor	M 402	6168
Basic Supply Chief	M 402	6133
Manual Instructions	M 420B	6220
Sassy Instruction	M 413B	6297
Class Commander	M402	6168
Duty NCO	M 416	6125
Disbursing Instructional Section		
Officer in Charge	M 407	6212
NCOIC	M 407	6246
Fiscal Instruction Section		
Officer in Charge	M 409	6278 6216
Ground Supply Instruction Section		
Officer in Charge	M 403	0839
Ground Officer Supply Course Section		
Officer in Charge	M 403	6134
Advance Enlisted Supply Instruction Section		
Officer in Charge	M 403	6228
NCOIC	M 403	6134
Supply Chief	M 403	6228
Course Content Board	M 402	6243
STAFF NCO ACADEMY		
Commanding Officer	M 215	6115
Executive Officer	M 215	6115
1st Sergeant	M 215	6284
Instructors	M 216	6136

Organization	Bldg.	Phone
RESERVE SUPPORT UNIT		
Commanding Officer	1403	2221
Executive Officer	1403	5415
1st Sergeant	1403	5240
Administrative Chief	1403	1790
Reserve Information Office	57	2051
Supply Officer	1403	3144
ATD Staff (Jun-Aug)		
S-1 (During Working Hours)	1403	1790
Orders Section (During Working Hours)	1403	5240
Officer of the Day	1403	1790

RIFLE RANGE DETACHMENT

COMMANDING OFFICER	RR 12	7118
Chief Range Officer	RR 12	7118
Executive Officer	RR 12	7186
Sergeant Major	RR 12	7186
Adjutant	RR 12	7186
Administrative Chief	RR 12	7118
Armory	RR 11	7141
Career Planner	RR 12	7418
Civilian Maintenance	RR 13	7447
Dining Facility	RR 3	7346
Fire Station #10	RR 6	7223
Gate	RR 78	7247
Maintenance	RR 13	7171
Marksmanship Training Unit	RR 50	7435
Marine Corps Exchange	RR 10	7230
Medical Officer	RR 11	7316
Motor Transport	RR 14	7280
Personnel Officer	RR 12	7418
Post Office	RR 10	7180
Range Detail	RR 11	7165
Rifle - Pistol Team (Base)	RR 11	7141
Rifle - Pistol Team (2d FSSG)	RR 48	7374
Rifle - Pistol Team (2d Mar Div)	RR 48	7196
Sergeant of the Guard	RR 11	7442
Service Club	RR 49	7146
Service Station	RR 72	7122
Sick Bay	RR 11	7316
Special Services	RR 51	7168
Statistical Office	RR 12	7131 7257
Steam Plant	RR 15	7455
Supply Office	RR 11	7110
Supply Warehouse	RR 11	7235
Target Shed	RR 238	7270
Training Aids Storeroom	RR 12	7418
Barracks		
Barracks RR-4	RR 4	7181
BOQ	RR 9	7138
Officer of the Day	RR 11	7442

2d MARINE DIVISION

Organization	Bldg	Phone	Organization	Bldg	Phone
HEADQUARTERS, 2d MARINE DIVISION					
DIVISION COMMANDER	2	2100	Materiel Management Officer.....	2	2516
Aide to Division Commander.....	2	5404	Mount-Out Project Officer.....	2	2516
Sergeant Major.....	2	2505	Logistics Chief.....	2	2516
ASSISTANT DIVISION COMMANDER	2	5517	MIMMS.....	1208	5109
Aide to Assistant Division Commander.....	2	5517	ASSISTANT CHIEF OF STAFF G-5	2	5012
		2307	Leadership Team.....	2	3123
CHIEF OF STAFF	2	2216	Drug & Alcohol Team.....	14	1092
Staff Secretary.....	2	5425			1954
STAFF DUTY OFFICER	2	2127			1984
DEPUTY CHIEF OF STAFF	2	5604	ASSISTANT CHIEF OF STAFF COMPTROLLER	123	2406
ASSISTANT CHIEF OF STAFF G-1	2	5601	Assistant Comptroller (Budget Officer).....	123	2406
Assistant G-1.....	2	5420	Budget Chief.....	123	2406
		5170	Comptroller Chief.....	123	2406
		5234	Fiscal Officer.....	900	5808
Administrative Chief.....	2	5170	ADJUTANT SECTION		
ASSISTANT CHIEF OF STAFF G-2	2	2713	ADJUTANT	320	3747
Assistant G-2.....	2	2093	Assistant Adjutant.....	320	5164
Intelligence Chief.....	2	1501	Casualty Reporting Control Center.....	320	5033
4th Counterintelligence Team.....	430	1537	Congressional Interest.....	2	5921
		5411	Administrative Subsection		
Staff Counterintelligence Office.....	2	1501	Administrative Chief.....	320	3196
Imagery Interpretation Unit (IIU).....	123	3114	Chief Clerk.....	320	3163
		5715	Central Files/Guard Mail.....	320	3163
Interrogator Translator Unit (ITU).....	123	3212	Forms & Reports Control.....	320	3747
ITU Coordinator/Language Officer.....	123	3212	Message Clerk.....	320	3163
		2112	Reproduction Room.....	2	2012
ITU Supply/Motor Transport Section.....	408	3206	Staff Duty Clerk.....	320	3163
Sensor Control and Management Plt.(SCAMP)...	336	1904	Administrative Procedures Section		
		5310	Admin Procedures Officer/NCOIC.....	408	2202
Intelligence Operations Branch/TEC.....	518	2816	Tri-Command Admin School.....	408	3361
		5249	Admin RIC Insp.....	408	3361
Special Security Office.....	518	5716	Admin Discharge Section.....	320	3747
5th Special Security Comm Team.....	518	5716	Classified Files Subsection		
Map Storeroom.....	518	2816	Officer in Charge.....	339	5728
		5249	Registered Publications.....	339	3748
War Games Training Center.....	125	2959	Personnel Subsection		
ASSISTANT CHIEF OF STAFF G-3	2	2409	Pers Class & Assign Officer.....	10	2123
Assistant G-3.....	2	3701			5008
Operations/COC.....	2	3701	Assistant PC&AO(Enl Outgoing).....	10	3057
Training.....	2	3026	Personnel Chief.....	10	3057
Schools.....	2	3026			5018
Range.....	2	3080	NCOIC Correspondence/Guard Mail Section....	10	3057
NBC Equipment Pool.....	1301	3693	NCOIC Order Writing Unit.....	10	3057
Rifle and Pistol Team.....	RR 48	7196	NCOIC Quotas.....	10	3057
Operations Chief.....	2	2409	NCOIC Class & Assign Section.....	10	3057
WEO/NBC Officer.....	2	3026	NCOIC Testing/FMF Asst Unit.....	10	3057
TWSEAS.....	408	2317	Duty Clerk (After Working Hours)	10	3057
		3562	Postal Subsection		
TWSEAS Display Van.....	OP-5	1476	Postal Officer.....	1770	5554
ASSISTANT CHIEF OF STAFF G-4	2	2516	Postal Chief.....	1770	1505
Assistant G-4.....	2	2516	Superintendent of Mails.....	1770	1505
Plans Officer.....	2	2516	Personnel LOCATOR (Tri-Command).....	1770	3074
Operations Officer.....	2	2516	AIR OFFICER	2	5604
Assistant Operations Officer.....	2	2516	AMMUNITION OFFICER	14	3560
Maintenance Management Officer.....	2	2516			

2ND MARINE DIVISION

Organization	Bldg	Phone
HEADQUARTERS, 2d MARINE DIVISION (Continued)		
AREA AUDITOR	1116	2219
		3865
Audit Chief.....	1116	2219
BAND OFFICER	323	5912
Duty NCO.....	323	1814
BARBER SHOP	2	1791
CAREER PLANNING	HP 301	2116
		5706
Enlisted Management.....	HP 301	3769
CHAPLAIN	37	5928
Assistant Chaplain.....	37	5738
Administrative Assistant.....	37	5738
COMMUNICATION-ELECTRONICS OFFICER ...	2	5611
Assistant CEO(Opns/Planning).....	2	5344
Assistant CEO(Sup/MainD).....	2	1500
Communications Chief.....	2	1907
		1807
Assistant Communications Chief.....	2	1907
		1807
Communication Watch Officer.....	2	1917
Communication Center (Traffic Section).....	2	1671
Radio Van.....	307	2058
DATA SYSTEMS	320	5021
		1083
DISBURSING OFFICER	314	2639
NCOIC.....	314	2639
Audit Section.....	314	2639
Document Control	314	2639
		2623
Fiscal Section.....	314	2639
Mail/File.....	314	5325
Travel.....	314	1757
		5325
Hq Bn.....	314	5104
		5264
2d Combat Eng Bn.....	314	5104
		5264
2d Mar.....	314	3666
		3719
6th Mar.....	314	3440
		3280
8th Mar.....	TC 854	0241
		0283
10th Mar.....	314	3874
		5208
2d Recon Bn.....	314	5104
		5264
2d Tank Bn.....	314	3425
		1604
Duty Clerk (After Hours)	314	5701
EDUCATION OFFICER - See Page 33		
EMBARKATION OFFICER	102	5518
Embarkation Chief.....	102	3780
		1091

Organization	Bldg.	Phone
FIRE MARSHAL	320	3247
FIRE SUPPORT COORDINATOR	522	5509
FOOD SERVICES OFFICER	1116	2322
Division Mess Administrator.....	1116	1408
Division Food Service Technician.....	1116	1408
Food Service School.....	TC 805	0441
HEADQUARTERS COMMANDANT	317	5321
INFORMATION SYSTEMS MGMT OFFICER	320	5021
		1083
INSPECTOR	320	2206
		3247
Readiness Information Center.....	320	1384
JOINT PUBLIC AFFAIRS OFFICER	302	5655
LOCATOR PERSONNEL - Tri Command	1770	3074
MOTOR TRANSPORT OFFICER	102	2314
		1008
Assistant Motor Transport Officer.....	102	2314
Motor Transport Chief.....	102	3133
Motor Transport Co-ordinator.....	102	3133
Division Licensing NCO.....	102	3548
NAVAL GUNFIRE OFFICER	2	1535
Naval Gunfire Liaison Officer.....	2	1535
OPERATIONS ANALYSIS OFFICER	320	5021
		1083
ORDNANCE OFFICER	102	5421
		3536
Ordnance Chief.....	102	3560
PHOTOGRAPHIC SERVICES - See Page 33		
PROVOST MARSHALL	37	5746
POSTAL OFFICER	1770	5554
RECONNAISSANCE OFFICER	BA 102	7112
REPRODUCTION OFFICER	1100	5964
Customer Service.....	1100	1096
SAFETY OFFICER	320	3247
SPECIAL SERVICES OFFICER	300	5623
		3636
Special Services Chief.....	300	5623
		3636
Athletic Officer.....	300	3636
		3516
Bookkeeper.....	300	3636
Custodian Recreation Fund.....	300	5623
		3636
Warehouse.....	330	3991
STAFF JUDGE ADVOCATE	311	3590
Deputy Staff Judge Advocate.....	311	3590
Admin Law Officer.....	311	5545
		2808

2ND MARINE DIVISION

Organization	Bldg	Phone
Admin Section.....	311	5545
Annex.....	TC 754	0117 0424
Legal Chief.....	311	2808 5545
Review Officer.....	311	5545
Justice Section.....	311	5545
Court Docket Section.....	333	5545
Reporters.....	311	2923 2021
Trial Counsel.....	333	2021 2023
Defense Counsel.....	331	2681 2614 5093
Reporter Section.....	342	5026
Legal Assistance Officer.....	66	1903 5860
SUPPLY OFFICER.....	1208	5215
Asst Supply Officer.....	1208	5215
Supply Chief.....	1208	3177
Supply Management Team.....	1208	3177
Division Mount Out Projects Officer.....	1208	5254
SURGEON.....	306	2105
Administrative Assistant.....	306	2105
Surgeon Record Office.....	306	5252
Hospital Corps Detail Chief.....	306	5252
Navy Career Counselor.....	306	1062
Navy Personnel Records Office.....	306	2619 1062
Navy Separations.....	306	2619
Division Psychiatrist.....	14	2081
HEADQUARTERS BATTALION		
COMMANDING OFFICER.....	317	5321
Executive Officer.....	317	5321
Sergeant Major.....	317	3316
Adjutant.....	317	3316
Bn. Admin.....	326	1978 5011 3756 2022
S-1.....	317	3316
S-1 Chief.....	317	3316
S-3 Officer.....	317	5174 1752
S-4 Officer.....	317	3524 5305
Battalion Aid Station.....	324	3455
Career Planning Office.....	301	2096
Chaplain.....	317	2892
Medical Chief.....	324	1723
Dispensary.....	324	3455
Embarkation Officer.....	317	3524
Guard.....	326	1526
Legal Officer.....	317	3316
Mess Officer.....	317	3524
Mess Chief.....	325	3689
Battalion N3C Office.....	317	5305
Motor Transport Officer.....	1711	1546
Dispatcher.....	1780	1696
Police Shed.....	334	1692

Organization	Bldg.	Phone
Post Office.....	344	1741
Special Services.....	317	3524
Supply Officer.....	431	5511
Supply Chief.....	431	3893
S&C Files.....	317	3316
Officer of the Day.....	317	5321
AREA 3 ACTIVITIES		
Area Commander.....	317	5321
Area Executive Officer.....	317	5321
Area Police Officer.....	317	3524
HEADQUARTERS COMPANY		
Commanding Officer.....	326	1769
Executive Officer.....	326	3505
1st Sergeant.....	326	1769
Company Gunnery Sergeant.....	326	3505
Mailroom.....	326	3505
Supply.....	332	3977
Training NCO.....	326	1769
Duty NCO.....	326	3505
COMMUNICATION COMPANY		
Commanding Officer.....	301	2813
Executive Officer.....	301	3843
1st Sergeant.....	301	3843
Company Gunny/Police.....	301	1094
Operations.....	301	2922 1744
OIC Communication Center.....	2	2188
Communication Center.....	2	1671
Radio Platoon.....	307	3879
Wire Platoon.....	307	2058 3895
Multi-Channel Radio Platoon.....	1704	1597
Maintenance Platoon.....	1707	1073 3981
Air Naval Gunfire Platoon.....	307	1043
Motor Transport.....	1703	1733
Engineer Section.....	1703	1733
Dispatcher.....	1703	1733
Supply.....	301	1094
Supply Warehouse.....	307	1617
Duty NCO.....	301	1094
MILITARY POLICE COMPANY		
Commanding Officer.....	3	2457
Executive Officer.....	3	2455
1st Sergeant.....	HP 51	5135
Duty NCO.....	HP 51	1614
SERVICE COMPANY		
Commanding Officer.....	323	2869
Executive Officer.....	323	2869
1st Sergeant.....	323	2869
Armory.....	328	3401
Gunnery Sergeant.....	323	3841
Mess Chief.....	325	3689
Motor Transport Chief.....	1780	3644
Dispatcher.....	1780	1546
Motor Transport Maintenance.....	1780	3644
Reproduction Chief.....	1100	5964
Supply Chief (Garrison Property).....	431	3893
Supply Chief (Organic Property).....	431	5511
Warehouse.....	431	5511
Duty NCO (After Working Hours).....	323	3841

2ND MARINE DIVISION

Organization	Bldg.	Phone
HEADQUARTERS BATTALION (Continued)		
TRUCK COMPANY		
Commanding Officer.....	327	1875
1st Sergeant.....	327	3618
Admin.....	327	3618
Dispatcher.....	1711	3430
		3512
1st Platoon.....	1710	3484
2nd Platoon.....	1710	3753
3rd Platoon.....	1710	3753
Duty NCO.....	327	1875
DIVISION SCHOOLS		
Director.....	8	2085
Asst. Director.....	8	5193
Sgt. Major.....	8	2085
Operations Chief.....	8	5193
Chief Instructor Tactics.....	8	2085
Chief Instructor Leadership.....	8	5193
Marksmanship Training Unit.....	R 48	7196
	342	1027
		1065
Duty NCO.....	8	2085

2d COMBAT ENGINEER BATTALION

Commanding Officer.....	315	3223
Executive Officer.....	315	3223
Sergeant Major.....	315	3940
S-1/Adjutant.....	315	3940
Battalion Admin.....	343	3669
		2086
S-2.....	315	5139
S-3.....	315	3961
		3704
S-4.....	315	5319
		3993
Armory.....	303	3293
Chaplain.....	340	2262
Communications Officer.....	341	3139
Communication Center.....	341	3940
Construction Officer.....	1810	3793
Drafting/Survey.....	1810	3793
G-4 Range.....		3986
Heavy Equipment Officer.....	1808	3975
		3426
Bn Guard/Cpl of the Guard.....	303	3685
Legal.....	315	5189
MMO.....	1811	3870
Motor Transport Officer/Dispatcher.....	1809	5223
Motor Transport Chief.....	1809	3583
Personnel Officer/Chief.....	343	3669
S&C Files.....	315	3940
Sick Bay.....	340	3937
Supply Officer.....	1811	2846
Supply Chief.....	1811	3711
Utilities Officer.....	1804	1983
Officer of the Day.....	315	3940
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	313	3527
Company Storeroom.....	1824	3683
Duty NCO.....	313	1882

Organization	Bldg.	Phone
ENGINEER SUPPORT COMPANY		
Commanding Officer.....	309	3898
		3883
1st Sergeant.....	309	3883
Duty NCO.....	309	3883
COMPANY "A"		
Commanding Officer/1st Sergeant.....	313	1913
		3470
Company Storeroom.....	1800	3683
Duty NCO.....	313	1913
COMPANY "B"		
Commanding Officer/1st Sergeant.....	321	1659
		1530
Company Storeroom.....	1800	3683
Duty NCO.....	321	1530
COMPANY "C"		
Commanding Officer/1st Sergeant.....	321	1630
		1557
Company Storeroom.....	1800	3683
Duty NCO.....	321	1630

2d MARINES

COMMANDING OFFICER.....	223	2118
Executive Officer.....	223	5595
Sergeant Major.....	223	1037
S-1/Adjutant.....	223	1037
		1038
S-2.....	223	3625
		2828
S-3.....	223	5190
S-3 Chief.....	223	1038
Project Officer.....	223	1038
S-4.....	223	2222
Administrative Chief.....	223	3424
Air Liaison Officer.....	223	2822
Area #2 Guard.....	206	1077
Career Planners.....	207	1915
		5200
Career Counselor.....	207	5200
Chaplain.....	223	5669
Communications Officer.....	329	1745
Communications Chief.....	329	1592
Dispensary.....	221	5081
Embarkation Officer.....	223	2222
Intelligence Chief.....	223	3625
Legal Officer.....	223	1038
MMO.....	223	3678
Marine Corps Exchange Area 2.....	225	1626
Medical Officer.....	203	1584
Medical Chief.....	221	5081
Mess Chief.....	211	3490
Message Center.....	223	3687
Motor Transport Officer.....	1206	3460
		3404
Motor Transport Chief.....	1206	3460
Operations Chief.....	223	5190
Post Office.....	229	3598
S&C Files.....	223	3678
Service Club Area #2.....	225	3814
Special Services.....	201	1612
Staff Duty NCO.....	223	1037
Duty Officer.....	223	5595

2ND MARINE DIVISION

Organization	Bldg	Phone
HEADQUARTERS COMPANY		
Commanding Officer/Executive Officer.....	227	3715
1st Sergeant.....	HP 175	3205
Armory.....	230	5176
Supply Officer.....	229	3846
Duty NCO.....	HP 175	3205

1st BATTALION, 2d MARINES

COMMANDING OFFICER..... 214 5713		
Executive Officer.....	214	1459
Sergeant Major.....	214	1459
S-1.....	214	1459
S-2.....	214	3217
S-3.....	214	3448
S-3A.....	214	2211
S-4.....	214	1651
		1573
Adjutant.....	214	3716
Battalion Admin.....	220	3651
		3222
Air Liaison Officer.....	214	2211
Armory.....	231	3507
Chaplain.....	214	2335
Communication Officer.....	231	3727
Communication Chief.....	231	3727
Dining Facility.....	211	3490
Education Officer.....	214	2211
Embarkation Officer.....	214	1651
Legal.....	214	3716
Maintenance Management Officer.....	212	3556
Medical Officer/Chief.....	203	1584
		2291
Mess Chief.....	211	3490
Message Center.....	214	3867
Motor Transport Officer.....	1206	1803
		3501
Sick Bay.....	203	1584
Special Services Officer.....	214	3217
Supply Officer.....	206	3295
Officer of the Day..... 214 3716		5713

HEADQUARTERS & SERVICE COMPANY

Commanding Officer/1st Sergeant.....	208	3194
		1452
Duty NCO.....	208	3194

COMPANY "A"

Commanding Officer/1st Sergeant.....	202	3288
		1321
Duty NCO.....	202	3288

COMPANY "B"

Commanding Officer/1st Sergeant.....	204	3237
		1359
Duty NCO.....	204	3237

COMPANY "C"

Commanding Officer/1st Sergeant.....	212	3695
		1424
Duty NCO.....	212	3695

Organization	Bldg	Phone
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	220	1401
Duty NCO.....	220	3608
		3608
Duty NCO.....	204	3608

2d BATTALION, 2d MARINES

COMMANDING OFFICER..... 219 2719		
Executive Officer.....	219	2719
Sergeant Major.....	219	3736
Adjutant/S-1.....	219	3736
		2719
Bn Admin/S-1.....	207	3839
		3175
S-2.....	219	3771
		3225
S-3.....	219	2607
S-3A.....	219	3631
S-4.....	219	3655
		1048
Air Liaison Officer.....	219	2607
Armory.....	234	1868
Career Planning NCO.....	207	1915
Chaplain.....	219	5055
COC.....	219	2607
Communication/Storeroom.....	234	5206
		3936
Embarkation Officer.....	219	3655
Legal Officer.....	219	3477
Mail Room.....	219	3225
		3771
Maintenance Management Office.....	219	3655
Medical Officer.....	203	3968
Mess Chief.....	211	3490
Message Center.....	219	3225
Motor Transport.....	1205	1337
		1052
S&C Files.....	219	3736
		3477
Sick Bay.....	221	3968
Supply Officer.....	215	3744
		1662
Supply Warehouse.....	210	3213
Warehouse.....	200	1997
Officer of the Day..... 219 3477		

HEADQUARTERS & SERVICE COMPANY

Commanding Officer/1st Sergeant.....	205	3389
		1340
Duty NCO.....	209	3369

COMPANY "E"

Commanding Officer/1st Sergeant.....	205	3492
		1544
Duty NCO.....	205	3492

COMPANY "F"

Commanding Officer/1st Sergeant.....	209	3369
		1554
Duty NCO.....	209	3369

2D MARINE DIVISION

Organization	Bldg	Phone
2d BATTALION, 2d MARINES (Continued)		
COMPANY "G"		
Commanding Officer/1st Sergeant.....	213	1677
		2984
Duty NCO.....	213	1677
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	217	3951
		1071
Duty NCO.....	217	3951
3d BATTALION, 2d MARINES		
COMMANDING OFFICER.....	118	5820
Executive Officer.....	118	3984
Sergeant Major.....	118	1996
Adjutant.....	118	3984
Battalion Admin.....	118	3830
		3792
S-2.....	118	3558
S-3.....	118	3782
S-4.....	118	5013
Battalion Aid Station.....	118	1642
Air Liaison Officer.....	118	3782
Armory.....	218	1844
Career Planner.....	118	1996
Chaplain.....	118	5787
Communications Officer.....	226	1832
Dining Facility.....	122	2010
Embarkation Officer.....	118	3777
Legal Officer.....	118	3830
Logistics Chief.....	118	3777
MMO.....	226	5140
Mess Officer.....	118	3777
Message Center.....	118	1996
Motor Transport.....	1205	2076
		1657
S&C Files.....	118	3558
Supply Officer.....	226	5140
		3147
OFFICER OF THE DAY.....	118	5820
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	118	2977
Duty NCO.....	165	1786
COMPANY "I"		
Commanding Officer/1st Sergeant.....	118	2964
Duty NCO.....	195	1525
COMPANY "K"		
Commanding Officer/1st Sergeant.....	118	2954
Duty NCO.....	185	1633
COMPANY "L"		
Commanding Officer/1st Sergeant.....	118	3868
Duty NCO.....	185	1633
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	118	3910
Duty NCO.....	195	1525

Organization	Bldg.	Phone
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6th MARINES

COMMANDING OFFICER.....	423	5835
Executive Officer.....	423	5914
Sergeant Major.....	423	3346
Adjutant.....	423	3346
S-1/Admin Center.....	423	3346
S-2.....	423	5263
S-3.....	423	1305
S-3A.....	423	5801
S-4.....	423	3737
Air Liaison Officer.....	423	1305
Armory.....	436	1648
Career Planner.....	408	1950
		5313
Chaplain.....	423	5370
Classified Files.....	423	3346
Communications Officer.....	423	3433
Communications Chief.....	429	3216
Communications Maintenance/Storeroom.....	429	3216
Dining Facility.....	411	3431
Education Office.....	401	3768
Embarkation Officer.....	423	3737
Legal Officer.....	423	3346
Message Center.....	423	3452
Motor Transport.....	1505	3476
NBC NCO.....	444	3547
Police Sergeant.....	428	1623
Regimental Aid Station		
Medical Chief.....	427	5201
Assist. Medical Chief.....	427	3593
Admin.....	427	5201
Medical Records.....	427	3593
Medical Supply.....	427	5201
Physical Exam.....	427	3593
Sick Bay.....	421	3200
		5220
Regimental Guard.....	427	1313
S&C Files.....	423	3346
Special Services/Gymnasium.....	401	3768
Supply Officer.....	436	1648
		1025
Officer of the Day.....	423	3346
HEADQUARTERS COMPANY		
Commanding Officer/1st Sergeant.....	427	1895
Chief Clerk.....	427	3120
Supply Storeroom.....	436	1648
Duty NCO.....	427	1895

1st BATTALION, 6th MARINES

COMMANDING OFFICER.....	416	5523
Executive Officer.....	416	5523
Sergeant Major.....	416	3297
Adjutant.....	416	5523
Bn Admin.....	426	3286
		1963
S-2.....	416	1674
S-3.....	416	5303
S-3A.....	416	5218
S-4.....	416	3407
Air Liaison Officer.....	416	5218
Armory.....	440	3530

2ND MARINE DIVISION

Organization	Bldg	Phone		
Career Planner.....	408	5313		
Chaplain.....	416	2282		
Communications Officer.....	414	3767		
Embarkation Officer.....	440	3530		
Files/Reproduction.....	416	3589		
Legal Officer.....	416	3589		
Message Center.....	416	1552		
Motor Transport Officer.....	1505	3633		
Sick Bay.....	420	3623		
Supply Officer/MMO.....	437	1084		
		3717		
Maint. Chief.....	414	2993		
Training NCO.....	416	5303		
Officer of the Day.....	416	5523		
HEADQUARTERS & SERVICE COMPANY				
Commanding Officer.....	420	3568		
1st Sergeant.....	420	3688		
Duty NCO.....	420	3568		
COMPANY "A"				
Commanding Officer/1st Sergeant.....	422	3709		
		1905		
Duty NCO.....	422	3709		
COMPANY "B"				
Commanding Officer/1st Sergeant.....	420	3943		
		3587		
Duty NCO.....	420	3943		
COMPANY "C"				
Commanding Officer/1st Sergeant.....	412	3827		
		1906		
Duty NCO.....	412	3827		
WEAPONS COMPANY				
Commanding Officer.....	422	3208		
		1900		
Duty NCO.....	422	1900		
2d BATTALION, 6th MARINES				
COMMANDING OFFICER.....			400	2200
Executive Officer.....	400	1685		
Sergeant Major.....	400	3994		
Adjutant.....	400	1685		
Bn Admin.....	402	3862		
		5251		
S-1.....	400	2200		
S-2.....	400	3277		
S-3.....	400	3931		
S-3A.....	400	3759		
S-4.....	400	5402		
		3831		
Armory.....	402	3807		
Career Planner.....	408	1950		
Chaplain.....	400	2260		
Communication Center.....	400	1685		
Communication Officer.....	439	5166		
Embarkation Officer.....	400	5402		
Legal Officer/Legal Clerk.....	400	1581		
Motor Transport Dispatcher.....	1506	5118		
Sickbay.....	404	3603		
Special Services Officer.....	400	3277		
Supply.....	432	3284		
Officer of the Day.....	400	2200		

Organization	Bldg	Phone
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	404	1809
		3523
Duty NCO.....	404	1809
COMPANY "E"		
Commanding Officer/1st Sergeant.....	406	3201
		3282
Duty NCO.....	406	3201
COMPANY "F"		
Commanding Officer/1st Sergeant.....	406	3532
		1003
Duty NCO.....	406	3532
COMPANY "G"		
Commanding Officer/1st Sergeant.....	407	1513
		2944
Duty NCO.....	407	1513
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	407	3692
		3183
Duty NCO.....	407	3183

3d BATTALION, 6th MARINES

COMMANDING OFFICER.....			419	5612
Executive Officer.....	419	5612		
Sergeant Major.....	419	5189		
S-1/Adjutant.....	419	5233		
Bn Admin.....	417	5257		
		3797		
S-2.....	443	1511		
S-3.....	419	5020		
S-3A.....	419	5185		
S-4.....	419	1570		
		1695		
Administrative Officer.....	417	5257		
Administrative Chief.....	417	3797		
Aid Station.....	417	3877		
Air Officer.....	419	5185		
Armory.....	413	1794		
Career Planner.....	408	1950		
Chaplain.....	419	2264		
Communications Officer.....	434	5204		
Comm Chief.....	434	5152		
Comm Center.....	419	3453		
Embarkation Officer/MMO.....	419	1695		
Legal Officer.....	419	1070		
Motor Transport Officer.....	1506	1517		
NBCD Officer.....	413	1794		
Police Sgt.....	442	2057		
Supply Officer.....	445	1646		
		1435		
Supply Warehouse.....	445	1646		
Officer of the Day.....	419	5612		
HEADQUARTERS & SERVICE COMPANY				
Commanding Officer/1st Sergeant.....	417	1447		
		2934		
Duty NCO.....	417	1447		

2ND MARINE DIVISION

Organization	Bldg.	Phone
3d BATTALION, 6th MARINES (Continued)		
COMPANY "I"		
Commanding Officer/1st Sergeant.....	415	3173 3126
Duty NCO.....	415	3173
COMPANY "K"		
Commanding Officer/1st Sergeant.....	409	3152 3226
Duty NCO.....	409	3226
COMPANY "L"		
Commanding Officer.....	407	3463 3285
Duty NCO.....	426	3463
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	415	1910 3174
Duty NCO.....	415	3174
8th MARINES		
COMMANDING OFFICER.....	TC 704	0114
Executive Officer.....	TC 704	0585
Sergeant Major.....	TC 704	0585
S-1/Adjutant.....	TC 704	0189
S-2.....	TC 705	0446
S-3.....	TC 705	0418 0420
S-4.....	TC 705	0225 0468 0343
Administrative Chief.....	TC 704	0189
Aid Station.....	G 530	0451
Armory.....	G 480	0182
Career Planner.....	G 520	0104 0492
Chaplain.....	TC 601	0778 0794
Communications Officer.....	TC 706	0230
Communications Center.....	TC 706	0857
Regimental Radio.....	TC 720	0275
Wire Shop/MUX Radio.....	TC 721	0674
Deputy for Camp Affairs.....	G 530	0216 0194
NCOIC.....	G 530	0194
Emergency Maintenance.....	G 530	0221
Area Maintenance/Police Shed.....	TC 832	0245
Area Maintenance Tool Room.....	TC 832	0245
Area Guard Officer/Chief.....	G 521	0177
Special Services Officer.....	TC 748	0330
Embarkation Officer.....	TC 705	0343
Electronic Maintenance/Comm Chief.....	TC 706	0477
Garrison Property Office.....	TC 730	0440
Gym.....	TC 775	0131
Legal Officer.....	TC 704	0293
Legal.....	TC 704	0338
Motor Transport Officer.....	TC 773	0232 0132
Regimental Guard.....	G 521	0471
Commander/Sgt-of-Guard.....	G 521	0177
Special Services NCOIC.....	TC 748	0330
Special Services Rec Room.....	TC 749	0170

Organization	Bldg.	Phone
Supply.....	TC 341	0153 0142
Duty Officer.....	TC 704	0189
HEADQUARTERS COMPANY		
Commanding Officer/1st Sergeant.....	G 522	0271
Armory.....	G 480	0393
Comm/Motor Pool.....	TC 771	0255
Duty NCO.....	G 522	0277
1st BATTALION, 8th MARINES		
COMMANDING OFFICER.....	TC 745	0213
Executive Officer.....	TC 745	0213
Sergeant Major.....	TC 745	0228
S-1/Adjutant.....	TC 745	0379
S-2.....	TC 745	0297 0398
S-3.....	TC 739	0302
S-3A.....	TC 739	0362
S-4.....	TC 739	0325
Battalion Admin.....	TC 738	0165 0489
Aid Station.....	G 540	0124
Armory.....	G 480	0392
Career Planner.....	G 520	0195
Chaplain.....	G 540	0510
Communications Officer.....	TC 735	0388
Embarkation.....	TC 739	0454
Legal Officer.....	TC 745	0398 0297
Motor Transport.....	TC 774	0484
Supply.....	TC 460	0236 0476
Officer of the Day.....	TC 745	0379
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	G 532	0872
Duty NCO.....	G 532	0877
COMPANY "A"		
Commanding Officer/1st Sergeant.....	G 541	0751
Duty NCO.....	G 541	0198
COMPANY "B"		
Commanding Officer/1st Sergeant.....	G 542	0773
Duty NCO.....	G 542	0223
COMPANY "C"		
Commanding Officer/1st Sergeant.....	G 542	0673
Duty NCO.....	G 542	0495
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	G 531	0171
Duty NCO.....	G 531	0498

2d BATTALION, 8th MARINES		
COMMANDING OFFICER.....	TC 753	0211
Executive Officer.....	TC 753	0211
Sergeant Major.....	TC 753	0166
Adjutant.....	TC 753	0254
Bn. Admin.....	TC 737	0366 0432
S-2.....	TC 752	0272

2ND MARINE DIVISION

Organization	Bldg	Phone
S-3.....	TC 752	0188 0203
S-4.....	TC 752	0180 0475
Aid Station.....	G 550	0426 0422
Air Liaison Officer.....	TC 752	0188
Armory.....	G 480	0394
Career Planner.....	G 520	0492
Chaplain.....	G 550	0618
Communications Officer.....	TC 751	0383
Message Center.....	TC 753	0357
Motor Transport.....	TC 474	0339
Supply.....	TC 342	0237 0421
Officer of the Day.....	TC 753	0211
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	G 533	0256
Duty NCO.....	G 533	0296
COMPANY "E"		
Commanding Officer/1st Sergeant.....	G 551	0331
Duty NCO.....	G 551	0341
COMPANY "F"		
Commanding Officer/1st Sergeant.....	G 552	0387
Duty NCO.....	G 552	0397
COMPANY "G"		
Commanding Officer/1st Sergeant.....	G 554	0262
Duty NCO.....	G 554	0252
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	G 534	0385
Duty NCO.....	G 534	0376

3d BATTALION, 8th MARINES

COMMANDING OFFICER.....	TC 745	0404
Executive Officer.....	TC 745	0156
Sergeant Major.....	TC 745	0579
Adjutant.....	TC 745	0546
Battalion Admin.....	TC 745	0292 0282
Battalion Mail Room.....	TC 745	0546
Battalion Aid Station.....	G 540	0335
Chaplain.....	G 540	0537
Communications Officer.....	TC 735	0250
Education Officer.....	TC 739	0578
Legal Officer.....	TC 745	0546
Message Center.....	TC 745	0541
Motor Transport.....	TC 603	0347
Supply.....	TC 462	0239 0273
OFFICER OF THE DAY.....	TC 745	0404
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	G 532	0664
Duty NCO.....	G 532	0653
COMPANY "I"		
Commanding Officer/1st Sergeant.....	G 541	0667
Duty NCO.....	G 541	0472
COMPANY "K"		
Commanding Officer/1st Sergeant.....	G 542	0647
Duty NCO.....	G 542	0488

Organization	Bldg	Phone
COMPANY "L"		
Commanding Officer/1st Sergeant.....	G 543	0676
Duty NCO.....	G 543	0425
WEAPONS COMPANY		
Commanding Officer/1st Sergeant.....	G 534	0233
Duty NCO.....	G 534	0428
10th MARINES		
COMMANDING OFFICER.....	522	5509
Executive Officer.....	522	5750
Sergeant Major.....	522	3352 5509 5750
S-1/Adjutant.....	522	3351
S-2.....	522	3822
S-3 Officer.....	522	5527
S-3 Operations Chief.....	522	5527
S-3 Training.....	522	1640
S-4.....	522	3933
Administrative Chief.....	522	3351
Armory.....	539	1474
Career Planner.....	560	2844
Chaplain.....	560	2266
Communications Center.....	522	1908
Communications Chief.....	1603	3911
Communication Officer.....	522	3488
CMR Officer.....	1603	3575
CMR Repair.....	1602	2701
Dental.....	460	3857
Electronics Repair.....	1602	2701
Embarkation Officer.....	522	3467
Engineer Officer.....	1842	1801
FSCC.....	522	1590
Guard.....	515	3770
Legal Officer.....	522	3352 5750 5509
Aid Station.....	520	1743
Message Center.....	522	1908
Metro Officer.....	537	3902
Motor Transport Dispatcher.....	598	1572
Motor Transport Officer.....	1841	1572
Motor Park Security.....	1841	1572
Ordnance Officer.....	522	3933
Radar/Electronics Repair.....	1602	2701
Radio Chief.....	1603	3911
S & C Files.....	522	3351
Basic Cannoneer School.....	538	1721
Sick Bay.....	421	3200 5220
Special Services.....	500	5288
Supply Officer.....	533	1961
Bn Supply.....	528	3165
Survey Officer.....	537	3902
Target Information Officer.....	522	1590
Staff Duty NCO.....	522	3351
Duty Officer.....	522	3351

2ND MARINE DIVISION

Organization	Bldg.	Phone
10th MARINES (Continued)		
HEADQUARTERS BATTERY		
Commanding Officer.....	517	3531
1st Sergeant.....	517	3531
		1088
Chief Clerk.....	517	3531
		1088
Gunnery Sergeant.....	517	3531
Motor Transport Officer.....	1755	3938
Duty NCO.....	517	3531
Duty NCO.....	515	1011
TARGET ACQUISITION BATTERY		
Commanding Officer.....	517	3698
Duty NCO.....	517	3531
1st BATTALION, 10th MARINES		
COMMANDING OFFICER..... 526 5826		
Executive Officer.....	526	5241
Sergeant Major.....	526	5213
S-1/Adjutant.....	526	5213
Bn Admin.....	526	3611
		3664
S-2.....	526	5238
S-3.....	526	1512
		5318
S-4.....	526	5102
Career Planner.....	526	1049
Communications Officer.....	534	3681
Legal Officer.....	526	5213
Logistics Chief.....	526	5102
Message Center.....	526	5213
Motor Transport Officer.....	1775	3143
Motor Transport Dispatcher.....	1775	1965
Naval Gunfire Liaison.....	527	1673
Operations Chief.....	526	1512
Ordnance/Armory.....	525	1842
Sick Bay.....	527	1496
Supply Officer.....	528	1515
		3165
Survey.....	526	1512
Battalion Duty Officer.....	526	5213
HEADQUARTERS BATTERY		
Commanding Officer/1st Sergeant.....	527	1995
Duty NCO.....	527	1995
BATTERY "A"		
Commanding Officer/1st Sergeant.....	523	3904
		3478
Comm/MT.....	571	3607
Duty NCO.....	523	3904
BATTERY "B"		
Commanding Officer/1st Sergeant.....	523	1461
		1463
Comm/MT.....	571	3607
DNCO.....	523	1461
BATTERY "C"		
Commanding Officer/1st Sergeant.....	519	3128
Administrative Office.....	519	1994
Comm/MT.....	599	3643
Duty NCO.....	519	3128

Organization	Bldg	Phone
BATTERY "K"		
Commanding Officer/1st Sergeant.....	519	3525
		3833
Comm/MT.....	599	3643
Duty NCO.....	519	3525
2d BATTALION, 10th MARINES		
COMMANDING OFFICER..... 501 5015		
Executive Officer.....	501	3220
Sergeant Major.....	501	5822
S-1/Adjutant/Legal.....	501	3220
Bn Admin.....	503	3791
		3992
S-2.....	501	2032
S-3.....	501	3220
S-4.....	501	3138
Administrative Chief.....	501	3220
Armory.....	513	1747
Career Planner.....	501	3220
Chaplain.....	560	5975
Communications Officer/Chief.....	509	3941
Embarkation Officer.....	1824	3570
Legal.....	501	3220
Liaison Officer.....	501	5015
Logistics Chief.....	501	3906
Message Center.....	501	3220
Motor Transport Officer/Chief.....	1775	1569
Motor Transport Dispatcher.....	1775	1880
NBC Officer.....	513	1574
NGF Liaison Officer.....	501	2032
Operations Chief.....	501	3570
Sick Bay.....	503	3887
Supply Officer/Chief.....	509	3184
		5270
Officer of the Day.....	501	3220
HEADQUARTERS BATTERY		
Commanding Officer/1st Sergeant.....	503	1686
		2928
Duty NCO.....	503	1686
BATTERY "D"		
Commanding Officer/1st Sergeant.....	507	1938
		3594
Duty NCO.....	507	1938
BATTERY "E"		
Commanding Officer/1st Sergeant.....	511	1606
		3546
Duty NCO.....	511	1606
BATTERY "F"		
Commanding Officer/1st Sergeant.....	511	3576
		3622
Duty NCO.....	511	3576
BATTERY "L"		
Commanding Officer/1st Sergeant.....	507	3703
		3965
Duty NCO.....	507	3703

2ND MARINE DIVISION

Organization	Bldg.	Phone
3d BATTALION, 10th MARINES		
COMMANDING OFFICER	520	5800
Executive Officer.....	520	1524
Sergeant Major.....	520	3946
Bn. Admin.....	560	1605
		3559
S-1.....	520	1524
		3946
		5800
S-2.....	520	3246
S-3.....	520	5169
		5025
S-4.....	520	1509
		5160
Armory.....	505	3876
Career Planner.....	560	1605
Communications Officer/Chief.....	532	1824
Message Center.....	520	3946
Motor Transport Officer.....	1775	3410
Motor Transport Dispatcher.....	1775	1498
Naval Gunfire Officer.....	520	5169
Ordnance Officer.....	505	3876
Personnel Officer.....	560	1605
RPS Clerk.....	505	3876
Sergeant of the Guard.....	520	3946
Corporal of the Guard.....	520	1524
Sick Bay.....	560	1330
Supply Officer.....	1801	1615
Officer of the Day	520	5800
HEADQUARTERS BATTERY		
Commanding Officer/1st Sergeant	560	3359
		1423
Duty NCO.....	560	3508
BATTERY "G"		
Commanding Officer/1st Sergeant	550	3539
Duty NCO.....	550	3581
BATTERY "H"		
Commanding Officer/1st Sergeant	550	3789
		3763
Duty NCO.....	550	3581
BATTERY "I"		
Commanding Officer/1st Sergeant	550	1624
		3739
Duty NCO.....	550	3581
BATTERY "M"		
Commanding Officer/1st Sergeant	560	3892
		3959
Duty NCO.....	560	3508
4th BATTALION, 10th MARINES		
COMMANDING OFFICER	FC 400	2805
Executive Officer.....	FC 400	2805
Sergeant Major.....	FC 400	1347
Adjutant.....	FC 400	1396
Bn Admin.....	FC 400	1347
		1396
S-2/S-3.....	FC 400	1601
		1506
S-4.....	FC 400	2710

Organization	Bldg.	Phone
Armory.....	FC 302	3281
Battalion Aid Station.....	FC 412	1386
Career Planner.....	FC 412	1800
Chaplain.....	FC 400	5791
Communications Officer.....	1309	3151
Communications Tech Shop.....	1309	1538
		3818
Dispatcher.....	1750	3894
Motor Transport Officer.....	1750	3897
MMO.....	FC 400	2710
Ordnance Maintenance Officer.....	1750	3855
Supply Officer.....	1118	3926
		1855
Survey Metro.....	1118	3856
Officer of the Day	FC 400	2805
HEADQUARTERS BATTERY		
Commanding Officer/1st Sergeant	FC 411	3577
		3283
Duty NCO.....	FC 412	1637
BATTERY "N"		
Commanding Officer/1st Sergeant	FC 412	1558
		1494
Maintenance.....	1750	3897
Motor Transport Office.....	1739	3472
Duty NCO.....	FC 412	1864
BATTERY "O"		
Commanding Officer/1st Sergeant	FC 412	1864
		1637
Comm Shack.....	1309	3151
Maintenance.....	1750	3897
Motor Transport Office.....	1739	3472
Duty NCO.....	FC 412	1864
5th BATTALION, 10th MARINES		
COMMANDING OFFICER		
Executive Officer.....	FC 400	2104
Bn Admin.....	FC 400	3115
		2053
S-2.....	FC 400	1957
S-3.....	FC 400	3859
S-4.....	FC 400	2616
		3832
Adjutant.....	FC 400	5227
Armory.....	FC 302	3281
		3845
Career Planner.....	FC 400	3705
Chaplain.....	FC 400	5791
Communications Tech Shop.....	GP 8	1932
Communications Officer.....	GP 8	1932
Dining Facility.....	FC 420	1021
Medical Section.....	FC 413	1303
Medical Officer.....	FC 313	5798
Medical Chief.....	FC 313	5126
MIMMS.....	FC 400	2616
Motor Transport Records Clerk.....	GP-816	3741
MT Maintenance Shop.....	816	1032
S & C Files/CMS.....	FC 400	5227
Special Services.....	GP 12	3996
Supply.....	1118	3985
Survey Metro.....	GP 13	1862
Wire/Records Shop.....	GP-9	1465
Officer of the Day	FC 400	2104

2ND MARINE DIVISION

Organization	Bldg	Phone
5th BATTALION, 10th MARINES (Continued)		
HEADQUARTERS BATTERY		
Commanding Officer/1st Sergeant.....	FC 413	1472 1327
Tracked Vehicle Maintenance.....	GP-1	1036 2931
Duty NCO.....	FC 413	1327
BATTERY R		
Commanding Officer/1st Sergeant.....	FC 413	3982 1931
Motor Transport.....	GP 7	1941
Duty NCO.....	FC 413	1931
BATTERY S		
Commanding Officer/1st Sergeant.....	FC 411	3422 3676
Motor Transport.....	GP 4	3670
Ordnance.....	GP 2	2921
Duty NCO.....	FC 411	3676
BATTERY T		
Commanding Officer /1st Sergeant.....	FC 411	3944 3948
Motor Transport.....	GP 3	3918
Ordnance.....	GP 2	2921
Duty NCO.....	FC 411	3948
2d RECONNAISSANCE BATTALION		
COMMANDING OFFICER.....	BA 102	7112
Executive Officer.....	BA 102	7112
Sergeant Major.....	BA 102	725 9
Adjutant.....	BA 102	7259
Bn Admin.....	BA 102	7426
S-1.....	BA 102	7443
S-2.....	BA 102	7464
S-3.....	BA 102	7210
S-4.....	BA 102	7124
Personnel Office.....	BA 102	7426
Legal Chief.....	BA 102	7443
Armory.....	BA 102	7423
Communications Officer.....	BA 105	7256
Comm Shop.....	BA 105	7256
Dining Facility.....	BA 103	7161
Mail Room.....	BA 102	7423
Medical Section.....	BA 105	7305
Message Center.....	BA 102	7240
Motor Transport Officer.....	BA 130	7327 7293
Scuba Locker.....	BA 128	7463
Special Services Officer.....	BA 104	7464
Supply Officer/Chief.....	BA 128	7202 7149
Sergeant of the Guard.....	BA 102	7259
Officer of the Day.....	BA 102	7259
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	BA 105	7424 7226
Duty NCO.....	BA 105	7424
COMPANY "A"		
Commanding Officer/1st Sergeant.....	BA 104	7220 7266
Duty NCO.....	BA 104	7220

Organization	Bldg.	Phone
COMPANY "B"		
Commanding Officer/1st Sergeant.....	BA 102	7272 7228
Duty NCO.....	BA 102	7272
COMPANY "C"		
Commanding Officer/1st Sergeant.....	BA 104	7490 7343
Duty NCO.....	BA 104	7490
2d TANK BATTALION		
COMMANDING OFFICER.....	304	5819
Executive Officer.....	304	5819
Sergeant Major.....	304	5188
S-1/Adjutant.....	304	1851
Bn Admin.....	306	3955 1744
S-2.....	304	3810
S-3.....	304	3725
S-4.....	304	5926
Armory.....	310	3861 1857
Career Planner.....	304	1454
Chaplain.....	340	2262
Communications Officer.....	1835	3506
Communications Section.....	1835	3960
Corporal of the Guard.....	310	1857
Legal.....	304	5819
Medical Section.....	324	1034 1578
Message Center.....	304	1851
Motor Transport.....	GP 19	3677
Motor Transport Dispatcher.....	GP 19	3869
NBC Officer.....	304	3725
Training Aids Office.....	337	1324
Sergeant of the Guard.....	310	1857
Sick Bay.....	324	1034 1578
Supply Office.....	1831	3834
Supply Officer.....	1831	3834
Co. Supply.....	1819	3417
Tank Maintenance.....	1832	3168 1948
Officer of the Day.....	304	1651
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer.....	318	3193
1st Sergeant/Gunnery Sergeant.....	318	3750
Supply.....	1819	3417
Duty NCO.....	318	3750
COMPANY "A"		
Commanding Officer/XO.....	316	3176
1st Sergeant.....	316	3228
Gunnery Sergeant.....	316	3228
Supply.....	1833	3749 3787
Tank Park.....	1833	3787
Duty NCO.....	316	3176

2ND MARINE DIVISION

Organization	Bldg.	Phone
COMPANY "B"		
Commanding Officer/XO	312	3707
1st Sergeant	312	3602
Supply/ Gy Sergeant	1835	3712
Tank Park	1833	3749
Duty NCO	312	3707
COMPANY "C"		
Commanding Officer/XO	312	3443
1st Sergeant	312	1986
Tank Park/Supply	1833	5145
Duty NCO	312	3443
COMPANY "D"		
Commanding Officer/XO	316	3573
1st Sergeant	316	3953
Supply/Gy Sergeant	1835	3712
Tank Park	1835	3712
Duty NCO	316	3573
TOW COMPANY		
Commanding Officer/XO	308	2092
1st Sergeant	308	3825
Tow Tech Shop	107	3702
Tow Unit Leader	308	3825
Supply	107	3702
Duty NCO	308	3825

2d ASSAULT AMPHIBIAN BATTALION

COMMANDING OFFICER	BB 5	7109
Executive Officer	BB 5	7109
Sergeant Major	BB 5	7361
Adjutant/Legal Officer	BB 5	7109
		7335
Bn. Admin	BB 15	7381
		7203
S-2	BB 5	7140
S-3	BB 5	7333
		7320
S-4	BB 5	7383
		7320
Maintenance Management Officer	A-1	7116
		7152
Ordinance Officer	BB 5	7383
S-5	BB 5	7140
Armory	BB 6	7176
Career Planner	BB 15	7434
Chaplain	BB 16	7304
Communication Section		
Communications Center	BB 5	7173
Communications Officer	A-1	7483
Communications Chief	A 1	7389
CMS Clerk	BB 5	7361
Dining Facility	BB 72	7148
Mail Clerk	BB 5	7335
Maintenance Section		
Maintenance Officer	A 2	7436
Maintenance Chief	A 2	7340

Organization	Bldg.	Phone
Medical Section		
Medical Officer	BB 10	7461
Dental Officer	BB 10	7147
Chief Corpsman	BB 10	7206
Dispensary	BB 10	7365
Duty Corpsman	BB 10	7338
Motor Transport Section		
Motor Transport Officer	A 11	7249
Motor Transport Dispatcher	A 11	7359
Sentry Booth, Boat Basin	A 11	7396
Special Services Officer	BB 36	7164
Supply Section		
Supply Officer	A 1	7152
Supply Chief	A-1	7388
Officer of the Day	BB 5	7109

HEADQUARTERS & SERVICE COMPANY

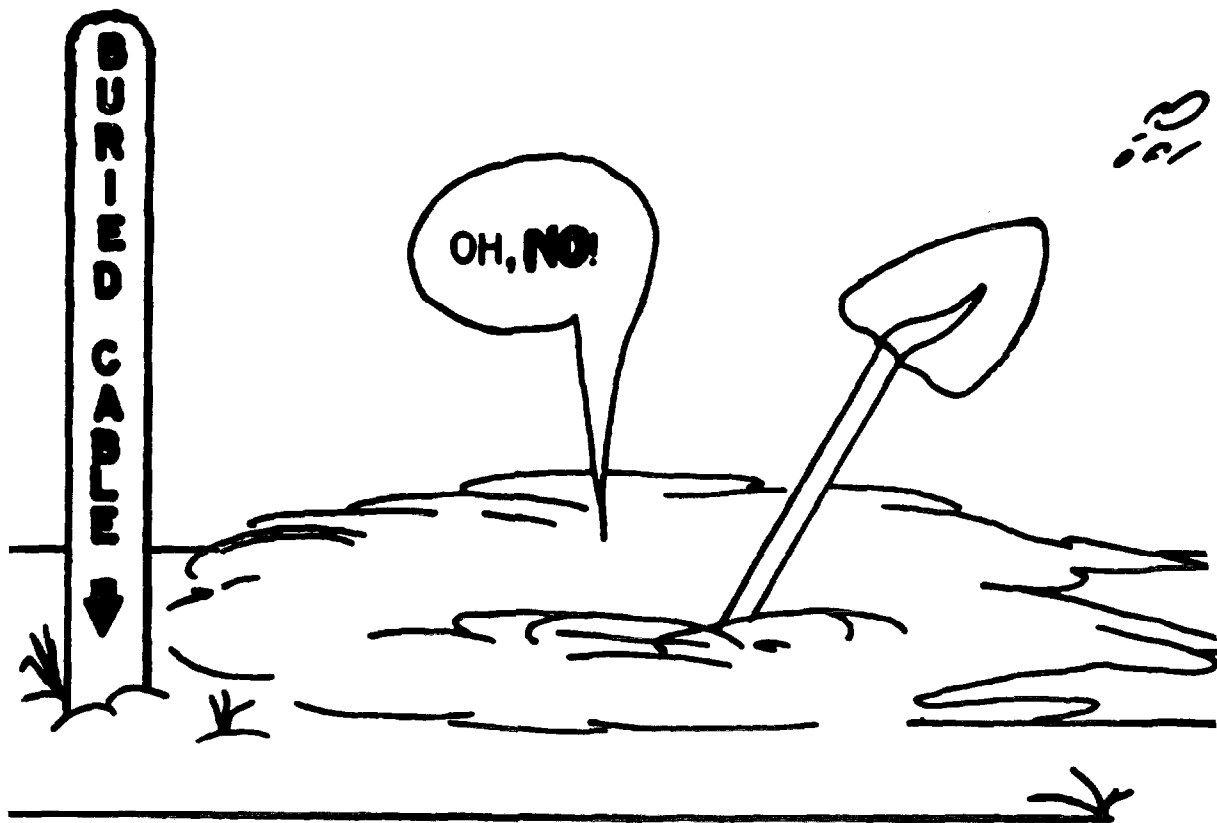
Commanding Officer	BB 11	7172
Executive Officer	B 11	7380
1st Sergeant	B 11	7172
Company Gunnery Sergeant	BB 11	7172
Duty NCO	BB 11	7380
COMPANY "A"		
Commanding Officer	BB 12	7123
Executive Officer	BB 12	7123
1st Sergeant	BB 12	7282
Company Gunnery sergeant	BB 12	7282
Maintenance Section		
Platoon Commanders	A 7	7466
Duty NCO	BB 12	7123

COMPANY "B"		
Commanding Officer	BB 13	7121
Executive Officer	BB 13	7121
First Sergeant	BB 13	7158
Company Gunnery Sergeant	BB 13	7158
Maintenance	A 3	7167
Platoon Commanders	A 3	7167
Duty NCO	BB 13	7121

COMPANY "C"		
Commanding Officer	BB 13	7348
Executive Officer	BB 13	7348
1st Sergeant	BB 13	7344
Company Gunnery	BB 13	7344
Maintenance	A 3	7366
Platoon Commanders	A 3	7366
Duty NCO	BB 13	7344

COMPANY "D"		
Commanding Officer	BB 14	7421
Executive Officer	BB 14	7421
1st Sergeant	BB 14	7471
Company Gunnery Sergeant	BB 14	7471
Maintenance Section	A 3	7433
Platoon Commanders	A-3	7433
Duty NCO	BB 14	7471

(919) 451-



**BEFORE DIGGING IN ANY AREAS
PLEASE CALL EXT. 2929**

2D FORCE SERVICE SUPPORT GROUP

Organization	Bldg	Phone	Organization	Bldg	Phone
HEADQUARTERS 2d FSSG FMF ATLANTIC			ASST C/S PLANS, DEPLOYMENT CONTROL		
COMMANDING GENERAL	59	5504		60	2811
Aide to Commanding General.....	59	5192			2201
Sergeant Major.....	59	5405			2031
DEPUTY COMMANDER	59	5192			2033
CHIEF OF STAFF	59	2702	BSSG-4		
Staff Secretary.....	59	2826	Commanding Officer.....	127	1041
Staff Duty Officer (After Working Hours).....	59	2826			1013
ASSISTANT CHIEF OF STAFF READINESS/INSPECTOR			Sergeant Major.....	127	1013
Assistant Chief of Staff.....	59	5600	Adjutant/S-1.....	127	1041
Readiness Officer.....	59	3785	Personnel Admin.....	127	1013
ASSISTANT CHIEF OF STAFF MANPOWER	59	5739	S-3.....	127	1041
		2312			2820
Asst C/S Manpower/Postal Officer.....	59	3588	S-4/Embark.....	127	3219
Congressional Interest Officer.....	59	3588	CEO.....	127	1041
Administrative Chief.....	59	3588	Supply.....	130	3202
ASSISTANT CHIEF OF STAFF INTELLIGENCE ..	59	5708	Maint.....	127	3219
		3597	Maintenance.....	913	3976
Assistant Intelligence.....	59	3162	Hq CMDT.....	127	3219
Intelligence Chief.....	59	3162	Warehouse.....	130	3202
Counterintelligence Assistant.....	59	3597	Duty NCO.....	12	1962
ASSISTANT CHIEF OF STAFF TRAINING	59	5607	MSSG-36/MSSG-38		
Assistant Training.....	59	2217	Commanding Officer/XO.....	6	2210
Projects Officer.....	59	2217	1st Sergeant/Admin.....	6	5137
Training Officer.....	59	3245	Supply/Maint.....	6	5165
Rifle and Pistol Team.....	RR 48	7374			3786
Range Officer.....	59	2217	ASSISTANT CHIEF OF STAFF COMPTROLLER ..	59	5324
Operations Chief.....	59	5607			2925
Schools NCO.....	59	3171	Budget Officer.....	59	3564
Training Chief.....	59	2217	Budget Chief.....	59	3564
ASST. C/S HUMAN/CIVIL AFFAIRS	61	3471	Internal Review Officer.....	59	3564
Career Planning Officer.....	61	1334	ADJUTANT	59	5304
Drug and Alcohol Education Officer.....	61	5755	Administrative Chief.....	59	3254
ASSISTANT CHIEF OF STAFF OPERATIONS ..	59	3914	Personnel Officer.....	10	2700
		2025	Personnel Chief.....	10	3675
		2823	Classification & Assignment.....	10	1761
Administrative Chief.....	59	3914	Order Writing Section.....	10	3195
Motor Transport Officer.....	59	5506	MM&S Officer.....	59	3159
		3648	CMCC/CMS.....	59	1331
Service Support (Air/MT/Embark).....	59	3648	Administrative Procedures Section		
		3456	Admin Procedures Officer/NCOIC.....	408	2202
Embarkation.....	59	1588	Tri-Command Admin School.....	408	3361
Engineer Support.....	59	3456	Admin RIC Insp.....	408	3361
Supply Support.....	59	3557	Admin Discharge Section.....	408	3361
		1042	AREA GUARD	FC 304	1343
		3646	AUTOMATED DATA PROCESSING GENERAL SUPPORT UNIT		
		5525	Director	1209	5910
		3847	Analysis & Programming.....	1209	1773
Maintenance Support.....	59	1063	Computer Room.....	Vic 1209	2365
M.O.O.S.E.....	59	5992	Installation Chief.....	1209	1050
M.O.O.S.E. (Oak Grove).....		2948	Operations Officer.....	1209	2308
Food Services.....	1116	3390	BOATHOUSE 2D FSSG	SA 28	7493
HSU.....	59	5306	CHAPLAIN 2D FSSG		
			Chaplain Staff.....	37	5711
					1391
			Area 1.....	111	5582
			French Creek.....	FC 300	2682
			Industrial Area.....	914	5438

2D FSSG

Organization	Bldg	Phone
HEADQUARTERS, 2D FSSG (Continued)		
COMMUNICATION-ELECTRONICS OFFICER ..	59	3838
Assistant CEO.....	59	3673
Communications Chief.....	59	3673
Asst Comm Chief/Elect Maint.....	59	3673
OIC Communications Center.....	59	3169
Communications Watch Officer.....	59	3169
CONSOLIDATED FISCAL ACCOUNTING OFFICE		
FMFLANT (CFAO).....	67	5401
		5112
		5808
CUSTODIAN RECREATION FUND.....		
	115	5519
		1879
DATA SYSTEMS OFFICER.....		
Information Systems Management Office.....	1209	1050
	1209	1050
DENTAL OFFICER.....		
Dental Appointment Desk.....	15	5705
Administrative Officer.....	15	3734
Dental Chief.....	15	5705
French Creek Dental Department.....	FC 300	1720
		3239
2D FSSG DISBURSING		
DISBURSING OFFICER.....	314	2639
Allotments.....	314	5701
		2623
		5325
Audit Section.....	314	2639
Document Control.....	314	2639
		2623
Fiscal Section.....	314	2639
		5701
Mail/File.....	314	5325
Travel.....	314	1757
		5325
H&S Bn.....	314	3172
		3455
2d Anglico.....	314	3445
		3172
2d ASLT AMPB Bn.....	314	3425
		1604
2d Force Recon Co.....	314	3273
		1750
Maint Bn.....	314	3172
		3445
Med Bn.....	314	3273
		1750
2d Radio Bn.....	TC 854	0241
		0283
2d Sup Bn.....	314	3172
		3445
8th Comm Bn.....	314	3273
		1750
8th Eng Support Bn.....	314	3273
		1750
8th MT Bn.....	314	3273
		1750
BSSG-4.....	314	3425
		1604
Duty Clerk (After Hours).....	314	5701

Organization	Bldg	Phone
EMBARKATION		
Embark Officer.....	59	2611
		1366
		1588
Port Control Office Morehead City.....		1805
		1806
FRENCH CREEK AREA CLINIC		
Medical Officer.....	FC 313	5798
Clinic Supervisor.....	FC 313	5798
Administration.....	FC 313	5125
Sick Call Supervisor.....	FC 313	5126
Pharmacy.....	FC 313	5127
Laboratory.....	FC 313	5125
X-Ray.....	FC 313	5127
FRENCH CREEK COORDINATOR'S OFFICE....		
	FC 312	1988
JOINT PUBLIC AFFAIRS OFFICER.....		
	302	5680
LOCATOR PERSONNEL - Tri Command.....		
	1770	3074
MOTOR TRANSPORT		
Dispatcher - 8th Motor Transport Bn.....	926	3373
	927	3411
Licensing NCO.....	TP 455	3788
NAVY RECORDS/PERSONNEL.....		
Asst. Personnel Officer.....	27	5907
Navy Training /Career Counselor.....	27	1565
Duty NCO.....	27	5907
POST OFFICE		
Postal Officer.....	1770	5554
Postal Chief.....	1770	1505
Superintendent of Mails.....	1770	1505
Mail Room Inspector.....	1707	5554
Supply/Embark NCO.....	1770	1505
Personnel LOCATOR (Tri-Command).....	1770	3074
Unit #1 (2d Marines).....	229	3598
Unit #2 (Hq 2d Mar Div).....	344	1741
Unit #4 (Camp Geiger).....	TC 900	0776
Unit #5 (French Creek).....	FC 313	5250
SASSY MANAGEMENT UNIT		
Officer in Charge.....	1108	3402
Operations Officer.....	1108	5609
Administration.....	1108	3402
Customer Service.....	1108	3935
Chief.....	1108	5207
Customer Assistance.....	1108	3728
Deployment Support.....	916	2806
General Account.....	1108	2121
Bin Storage.....	1108	3663
Bulk Storage.....	904	1085
CIP Camp Geiger.....	TC 761	0342
		0286
Initial Issue Provisioning.....	904	3438
Issue Control, Stock Control.....	1108	1468
Issue & Receiving.....	1108	3784
Medium Storage.....	903	3642
Receipts Control.....	1108	1683
Storage Operations.....	1108	1522

Organization	Bldg	Phone
Inventory Officer.....	904	1326
Maintenance Float Account.....	1211	1765
Float OIC/Chief.....	1211	5327
SPECIAL SERVICES OFFICER.....	115	1879
Special Services Chief.....	FC 312	5519
		3584
Boathouse 2d FSSG.....	SA 28	7493
STAFF JUDGE ADVOCATE.....	914	5806
		1304
Assistant Staff Judge Advocate.....	914	5806
Legal Administrative Officer.....	914	1304
Administrative Law Officer.....	914	1304
Legal Services Chief.....	914	1304
Administrative Chief.....	914	1304
Court Docket Chief.....	914	1482
Court Reporter Chief.....	914	1304
Review Officer.....	914	2122
Review Chief.....	914	2122
Chief Trial Counsel.....	914	5408
		1388
Trial Counsel.....	914	1388
Chief Defense Counsel.....	914	5413
Defense Counsel.....	914	1457
2d COUNTERINTELLIGENCE TEAM		
Team Commander.....	FC 400	5719
Operations Officer.....	FC 400	5719
Team Chief.....	FC 400	1067
NBC SCHOOL FMFLANT		
Officer in Charge.....	TC 1143	0116
NCOIC.....	TC 1143	0433
Instructor Office.....	TC 1143	0433
Supply Section.....	TC 1143	0281
Gas Chamber Area.....	TC 630	0365
Instructors Quarters.....	TC 1142	0333
Duty NCO (After Working Hours).....	TC 1142	0333
FMFLANT COMMUNICATIONS SCHOOL		
Officer in Charge.....	TC 1038	0415
Operations Officer.....	TC 1038	0497
Operations Chief.....	TC 1038	0483
Academic Supervisor.....	TC 1038	0121
Administrative Chief.....	TC 1038	0173
Communication Center Section.....	TC 1038	0121
Comm-Electronics Repair Section.....	TC 1038	0121
ERC/SUPPLY.....	TC 1037	0457
Field Radio Section.....	TC 1038	0493
Field Wire Section.....	TC 1038	0493
Organizational Assistance Team.....	TC 1038	0483
Radio Telegraph Operators Course.....	TC 1017	0742
Schools Gunnery Sergeant.....	TC 1038	0173
Schools Supply.....	TC 1039	0123
Duty NCO (After Working Hours).....	TC 1039	0123

SEPARATE BATTALIONS, 2D FSSG

Organization	Bldg	Phone
HEADQUARTERS & SERVICE BATTALION, 2D FSSG		
COMMANDING OFFICER.....	121	5427
Executive Officer.....	121	5427
Adjutant.....	121	1300
Bn. Admin.....	117	2056
		2037
		2938
Sergeant Major.....	121	1300
S-3.....	119	3881
		3454
S-4.....	119	3881
Armory.....	FC-302	3820
Bn Aid Station.....	FC 520	5472
Career Planner.....	121	1393
Chaplain.....	FC 565	5582
Dining Facility.....	FC 540	3600
	FC 420	1021
Dispatcher.....	1405	1655
Embarkation.....	119	3881
		3454
Garrison Property.....	914	1728
Legal Officer.....	121	1352
MHE Platoon.....	913	3976
MMO.....	119	3881
		3360
Motor Transport Maintenance Officer.....	1406	3549
Motor Transport Officer.....	1405	3713
CAV MT.....	TP 455	2939
Motor Transport Platoon.....	1405	3549
Orders Clerk.....	121	1300
NBC Warehouse.....	1211	3462
II MAF MIMMS School.....	125	2634
		2960
Special Services.....	115	1879
Supply Officer.....	914	2800
Supply Chief.....	914	1080
Training.....	119	3881
		3454
Battalion Staff Duty.....	121	5427
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer.....	FC-565	5626
		1373
Executive Officer.....	FC-565	5626
1st Sergeant.....	FC-565	5626
Company Gunnery Sergeant.....	FC 565	5626
Career Planner.....	FC 565	5626
Training.....	FC 565	5626
BEQ Manager.....	HP 57	3409
Duty NCO.....	FC 565	1373
SERVICE COMPANY		
Commanding Officer.....	FC-515	5155
		5265
Executive Officer.....	FC-515	5265
First Sergeant.....	FC-515	5155
		5265
Company Career Planner.....	FC 515	5265
		5155
Company Gunnery Sergeant.....	FC 515	5265
		5155
Training NCO.....	FC 515	5155
		5265
Duty NCO.....	FC 515	3423

2D FSSG

Organization	Bldg	Phone
HEADQUARTERS AND SERVICE BATTALION (Continued)		
COMMUNICATION COMPANY		
Commanding Officer	FC 515	1922
Executive Officer.....	FC 515	3423
1st Sergeant.....	FC 515	1922
Gunnery Sergeant.....	FC 515	3423
Communications Center.....	59	3169
Operations/Training.....	FC 515	1922
Radio Shop.....	531	3700
Tech Shop.....	531	1563
Wire Shop.....	531	3304
Duty NCO.....	FC 515	3423
2D DENTAL BATTALION		
Commanding Officer	13	2817
Command Master Chief.....	13	2935
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer	13	2831
Executive Officer.....	13	2958
Administrative Chief.....	13	2958
Supply.....	1118	2974
Warehouse Chief.....	1118	2367
2d DENTAL COMPANY		
Commanding Officer	460	5505
Executive Officer.....	460	3857
Senior Enlisted Advisor.....	460	3714
Appointments and Information.....	460	3714
22D DENTAL COMPANY		
Commanding Officer	15	5705
Executive Officer.....	15	1720
Senior Enlisted Advisor.....	15	1720
Appointments and Information.....	15	3734
French Creek Dental Detachment.....	FC 300	3239
2d LANDING SUPPORT BN 2d FSSG		
COMMANDING OFFICER	516	5710
Executive Officer.....	516	3511
Sergeant Major.....	516	3511
S-1/Adjutant.....	516	5154
Bn Admin.....	535	3610
		2956
S-2.....	516	3161
		1026
S-3.....	516	2119
Operations.....	516	3161
Training.....	516	1026
S-4.....	516	3256
Air Alert Force.....	506	1652
S-4A/Embark.....	516	3754
S-4 Chief.....	514	3257
Armory.....	504	3836
Battalion Aid Station.....	506	1528
Career Planner.....	535	1947
Carpentry.....	512	1619
Chaplain.....	536	2268
Communications Officer.....	529	3781
Dining Facility.....	508	5266
Guard.....	510	3979
Legal Officer.....	516	5710
Mail Room.....	516	3511
Material Handling Equip.....	1817	3105

Organization	Bldg	Phone
MMO/Dispatcher.....	1812	1738
		1742
MT Maintenance.....	1822	3927
Police Sergeant.....	512	1619
Sick Bay.....	421	3200
		5220
Special Services.....	535	1947
Supply Officer (Organic).....	1012	1772
Supply Chief.....	1012	1772
		3108
Officer of the Day	516	5710
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer	514	2650
Executive Officer.....	514	1812
First Sergeant.....	514	1812
Welding Shop.....	1815	1901
Company Supply.....	1824	5269
Duty NCO.....	514	1812
BEACH AND PORT COMPANY		
Commanding Officer	506	1514
Executive Officer.....	506	1414
1st Sergeant.....	506	1514
Material Handling Equipment.....	1812	1742
Air Delivery.....	106	3726
		1885
Supply.....	1824	5269
Duty NCO.....	506	1414
COMPANY "A"		
Commanding Officer	536	3292
Executive Officer.....	536	1853
First Sergeant.....	536	1853
Supply.....	1824	5269
Duty NCO.....	506	1652
COMPANY "B"		
Commanding Officer	510	1349
Executive Officer.....	510	3419
First Sergeant.....	510	3419
Supply.....	1824	5269
Duty NCO.....	510	1349
COMPANY "C"		
Commanding Officer	510	1952
Executive Officer.....	510	1891
1st Sergeant.....	510	1891
Supply.....	1824	5269
Duty NCO.....	510	1891
2d RADIO BATTALION, 2D FSSG		
COMMANDING OFFICER	TC 1063	0103
Executive Officer.....	TC 1063	0175
Sergeant Major.....	TC 1063	0175
Adjutant.....	TC 1063	0175
S-1.....	TC 1063	0175
SSO /S&C.....	TC 1059	0764
S-3.....	TC 1059	0102
		0115
S-3T.....	TC 1060	0196
S-4.....	TC 1063	0140
		0128
Log Chief.....	TC 1063	0128
Embarkation NCO.....	TC 1063	0140
NBC NCO.....	TC 1063	0381
Maintenance Management Officer.....	TC 862	0122
Maintenance Management Chief.....	TC 862	0122

Organization	Bldg.	Phone
Aid Station.....	TC 1056	0267
Armory.....	G 480	0395
Career Planner.....	TC 1063	0645
Communication Officer.....	TC 1059	0119
		0125
Communication Storeroom.....	TC 863	0139
Electronic Maintenance Officer.....	TC 952	0163
		0821
Engineer Maintenance Officer.....	TC 952	0130
Motor Transport Officer.....	TC 952	0135
MT Dispatcher.....	TC 952	0135
OCA Officer.....	TC 1059	0391
Personnel Officer.....	TC 1063	0645
		0481
S&C Officer.....	TC 1059	0764
CMS Officer.....	TC 1059	0764
TRANSEC Training Team.....	TC 1059	0115
Supply Officer.....	TC 860	0310
Supply Chief.....	TC 860	0249
Special Services.....	TC 1062	0381
ITT, EW, Detachment 1.....	TC 1048	0323
ITT, EW, Detachment 11.....	TC 1048	0328
Barracks (Male).....	G 523	0264
Barracks (Male).....	G 524	0148
Barracks (Female).....	G 523	0169
Staff Duty NCO.....	TC 1063	0103
		0175

HEADQUARTERS & SERVICE COMPANY

Commanding Officer.....	TC 1061	0542
		0361
Executive Officer.....	TC 1061	0542
1st Sergeant.....	TC 1061	0361
Administrative Chief.....	TC 1061	0361
Company Gunnery Sergeant.....	TC 1061	0542
Training/Education NCO.....	TC 1061	0542
Duty NCO.....	G 524	0148

COMPANY "A"

Commanding Officer.....	TC 1061	0427
1st Sergeant.....	TC 1061	0160
Administrative Chief.....	TC 1061	0160
Operations Officer.....	TC 1061	0160
Platoon Commanders.....	TC 1056	0544
DF Platoon.....	TC-1056	0544
Equipment Maintenance.....	TC 1056	0544
Supply.....	TC-1055	0284
Duty NCO.....	G 523	0264

COMPANY "B"

Commanding Officer.....	TC 1061	0372
Executive Officer.....	TC 1061	0372
1st Sergeant.....	TC 1061	0396
Admin Chief.....	TC 1061	0396
Operations Officer.....	TC 1061	0396
Platoon Commanders.....	TC 1058	0126
Supply/Elint Platoon.....	TC 1057	0146
MC Platoon/RT Platoon.....	TC 1056	0126
Duty NCO.....	G 524	0148
	G 523	0264

Organization	Bldg	Phone
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2d MAINTENANCE BATTALION, 2d FSSG

COMMANDING OFFICER.....	905	5423
Executive Officer.....	905	5423
Sergeant Major.....	905	3903
S-1/Adjutant.....	905	3903
Bn Admin.....	905	3823
		1383
		3903
Armory.....	FC 301	3742
S-2.....	905	5283
Career Planner.....	905	3197
Legal.....	905	1383
S-2/S-3.....	905	1796
Bn Lead Mech (Civilian).....	905	3957
Mail Room.....	905	3989
Maintenance Control Section.....	905	5216
Maintenance Material Unit.....	905	1724
		5295
Maintenance Shop Coordinators.....	905	3989
Operations Officer.....	905	2706
Operations Chief.....	905	3957
Operational Readiness Float.....	TP 448	1356
		3350
Sergeant of the Guard.....	905	3686
Training Officer.....	905	1796
S-4.....	905	5222
		3989
Motor Transport Officer.....	909	3945
Dispatcher.....	909	1470
Police Sergeant.....	105	3188
Special Services.....	905	5283
Supply Officer.....	905	3553
		1749
Staff Duty.....	905	5423
		3903

HEADQUARTERS & SERVICE COMPANY

Commanding Officer.....	FC 555	3266
Executive Officer.....	FC 555	3253
Duty NCO.....	FC 555	1566

ELECTRONICS MAINTENANCE COMPANY

Commanding Officer.....	1771	1985
Calibration Section.....	905	3370
		3279
Maintenance Officer.....	1771	1985
		5410
Shop Officer.....	1771	1716
Duty NCO.....	FC 560	1933

ORDNANCE MAINTENANCE COMPANY

Commanding Officer.....	FC 550	5510
Executive Officer.....	FC 550	3983
1st Sergeant.....	FC 550	3983
Artillery Section.....	901	1837
Machine Shop.....	901	1837
Maintenance Control Officer.....	901	1483
Optical Fire Control.....	900	5178
Shop Office.....	901	3864
Infantry Weapons Repair.....	902	3882
Supply Office.....	902	1484
Tracked Vehicle Repair.....	901	3875
Welding Shop.....	910	1432
Duty NCO.....	FC 550	3647

2D FSSG

Organization	Bldg	Phone
2D MAINTENANCE BATTALION (Continued)		
ENGINEER MAINTENANCE COMPANY		
Commanding Officer.....	902	3912
1st Sergeant.....	902	3912
Maintenance Control Office.....	902	1410
Shop Officer.....	902	3221
Engineer Equip Records/Dispatcher.....	902	3379
Duty NCO.....	FC 555	1566
MOTOR TRANSPORT MAINTENANCE COMPANY		
Commanding Officer.....	FC 550	5610
Executive Officer.....	FC 550	5610
1st Sergeant.....	FC 550	5610
Administrative Chief.....	FC 550	3647
Heavy Repair Platoon.....	1601	3848
Maintenance Officer.....	1601	3848
Organic Section.....	S-1507	3808
Supply Office.....	1601	1428
Duty NCO.....	FC 550	3647
GENERAL SUPPORT MAINTENANCE COMPANY		
Commanding Officer.....	FC 560	3528
1st Sergeant.....	FC 560	2976
Calibration Section.....	905	3370
		2706
Comm-Elect Platoon.....	900	5123
End Items Repair Section.....	909	3341
GSMR Platoon.....	902	3723
		3805
Maintenance Management Office.....	900	2992
		1989
Maintenance Chief.....	902	3723
		3805
Maint. Control/Component Rebuild Platoon.....	1601	1322
		1024
Duty NCO.....	FC 560	1933
2d MEDICAL BATTALION, 2d FSSG		
COMMANDING OFFICER.....	FC 360	5621
		5493
Executive Officer.....	FC 360	1688
MCPOC/Sgt Maj.....	FC 360	5621
S-1.....	FC 360	3817
		1688
S-3.....	FC 360	5308
S-4.....	FC 360	1006
Armory.....	27	3260
BEQ Manager.....	FC 360	1006
Career Counselor.....	FC 360	1006
Chaplain.....	FC 300	2682
Communications.....	13	1649
Embark.....	13	3964
		5113
Engineer Section.....	1819	1074
		5113
MIMMS.....	1012	3157
Medical Supply.....	1012	1991
Motor Transport.....	1819	1074
NRMC (TAD) Personnel.....	H-1	4302
		4348
		4528
Organic Supply.....	1012	2973
Sick Bay.....	421	3200
		5220
Officer of the Day.....	FC 360	3817

Organization	Bldg	Phone
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	FC 360	3271
Company Office.....	FC 360	2983
COMPANY "A"		
Commanding Officer.....	421	1921
Company Office.....	421	1372
Lab & Pharmacy.....	421	5220
Sick Call.....	421	3200
COMPANY "B"		
Commanding Officer.....	15	3441
Company Office.....	15	1364
Lab.....	15	1555
Pharmacy.....	15	1097
Physical Exams.....	36	3236
Sick Call.....	15	1762
X-Ray.....	15	1540
COMPANY "C"		
Commanding Officer/Clinical Supervisor.....	G 770	0105
Company Office.....	G 770	0322
Information Office.....	G 770	0371
Sick Call.....	G 770	0371
Duty Corpsman.....	G 770	0136

2d SUPPLY BATTALION, 2d FSSG

COMMANDING OFFICER.....	FC 530	5619
		1810
Executive Officer.....	FC 530	1810
		3444
Sergeant Majpr.....	FC 525	2035
		3543
Adjutant/Legal.....	FC 530	2963
		3444
Battalion Admin.....	FC 530	3444
		1060
Career Planner.....	FC 520	3638
S-3.....	FC 530	3418
Education Officer.....	FC 530	1758
DAACO.....	FC 530	1758
NBCO.....	FC 530	3418
NBC Section.....	914	3905
S-4.....	FC 530	3405
Armory.....	FC 301	1439
Guard.....	FC 530	3418
Embark Officer.....	FC 530	3405
Ordnance Officer.....	FC 530	3405
Motor Transport.....	909	1797
		2020
Engineer Section.....	909	1797
		2020
Supply Officer.....	914	3905
		3146
Supply Chief.....	914	3146
Safety Officer.....	909	1797
		2020
STAP OIC.....	1317	1000
		5814
STAP Warehouse.....	1317	1436
Deployment Support Unit.....	916	3667
		2806
DSU Armory.....	103	1439
Duty Officer.....	FC 530	3405
		3418
		1758

Organization	Bldg	Phone
PRESERVATION, PACKAGING & PACKING		
Officer in Charge.....	915	5230
Preservation Section.....	915	5224
Operations.....	915	1628
Box Shop.....	915	3187
Vehicle Preservation.....	909	3654
SASSY MANAGEMENT UNIT		
Officer in Charge.....	1108	3402
Operations.....	1108	5609
General Accounts.....	1108	2121
Customer Service.....	1108	3935
Inventory.....	904	1326
Maintenance Float.....	1211	5327
Deployment Support.....	916	2806
		3667
CIP Camp Geiger.....	TC 761	0342
		0286
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer.....	FC 525	3543
1st Sergeant.....	FC 525	2035
Inventory.....	904	1326
Duty NCO.....	FC 525	3543
AMMUNITION COMPANY		
Commanding Officer.....	FC 525	1044
1st Sergeant.....	FC 525	2953
Operations Officer.....	SH 7	2114
		3812
Ammunition Supply Point.....	SH 7	2114
		3812
NOP.....	SH 8	2994
		3459
NOP Guard.....	SH 8	1302
EOD.....	1308	5419
		1444
Duty NCO.....	FC 525	1044
RATIONS COMPANY		
Commanding Officer.....	FC 520	2933
1st Sergeant.....	FC 520	1722
Bakery.....	1308	2966
Mount Out/Armory.....	916	3613
Ration Issue Point.....	1117	1576
Duty NCO.....	FC 520	2933
SUPPLY COMPANY		
Commanding Officer.....	1108	3908
1st Sergeant.....	1108	2972
Duty NCO.....	FC 530	2982
MEDICAL LOGISTICS COMPANY		
Commanding Officer.....	907	2059
Admin Chief.....	907	2618
Medical Repair.....	907	2059
Mount-Out Section.....	907	2059
Duty NCO.....	FC-530	3405
8th COMMUNICATION BATTALION, 2D FSSG		
Commanding Officer.....	FC 300	3962
Executive Officer.....	FC 300	3262
Sergeant Major.....	FC 300	3962
S-1/Admin.....	FC 300	1611

Organization	Bldg.	Phone
S-3.....	FC 300	5203
Operations Chief/NBC NCO.....	FC 300	2316
Security Clearances.....	FC 300	2316
S-4.....	FC 300	1622
Maintenance Management Officer.....	FC 300	1622
Logistics Chief.....	FC 300	2730
Armory.....	FC 302	3696
Career Planner.....	FC 300	1889
Chaplain.....	FC 300	2682
Crypto Repair.....	FC 100	1866
CMS.....	FC 100	1866
CMCC.....	FC 300	5130
Dispatcher.....	FC-102	5149
Electronic Maintenance.....	FC 100	1323
Electronic Maintenance Officer.....	FC 100	3421
		1323
Embarkation Officer/NCO.....	FC 300	1622
Legal Officer.....	FC 300	1611
Legal Chief.....	FC 300	3262
Mail Room/Locator.....	FC 300	1611
Medical Officer.....	FC 313	5798
Chief.....	FC 313	5125
Motor Transport Officer.....	FC 100	2923
Sickbay.....	FC 305	1923
Special Services NCO.....	FC 300	1622
Supply Officer.....	1118	2962
Supply Chief.....	1118	2962
Supply Warehouse.....	1118	3691
WM Duty NCO.....	FC 415	3884
Officer of the Day.....	FC 300	3962
		3262
HEADQUARTERS COMPANY		
Commanding Officer.....	FC 305	3298
Executive Officer.....	FC 305	1873
1st Sergeant.....	FC 305	3298
Generator Platoon.....	FC-100	3661
Duty NCO (After Working Hours).....	FC 305	1873
W.M. Duty NCO.....	FC 306	3952
COMMUNICATION COMPANY		
Commanding Officer.....	FC 306	2952
Executive Officer.....	FC 306	1679
1st Sergeant.....	FC 306	1679
Operations Officer.....	FC 306	2952
Communication Center Platoon.....	1605	5133
Radio Platoon.....	1605	1764
Warehouse Supply.....	TP 449	5115
Wire Platoon.....	1118	1782
Police Sergeant.....	FC 306	2952
Duty NCO (After Working Hours).....	FC 306	1679
COMMUNICATION SUPPORT COMPANY		
Commanding Officer.....	FC 306	1945
Executive Officer.....	FC 306	1945
1st Sergeant.....	FC 306	1945
Operations.....	FC 306	1466
Comm Center Platoon.....	1604	3950
Radio Platoon.....	1604	3718
Duty NCO.....	FC 306	1466

2D FSSG

Organization	Bldg	Phone
8th COMMUNICATION BATTALION (Continued)		
LONG LINES COMPANY		
Commanding Officer.....	FC 305	1982
Executive Officer.....	FC 305	1982
1st Sergeant.....	FC 305	1982
Operations Officer.....	FC 305	1776
Construction Platoon.....	1311	1404
Multichannel Platoon.....	1312	3614
Supply.....	FC 305	1776
Duty NCO.....	FC 305	1641
8th ENGINEER SUPPORT BATTALION, 2d FSSG		
COMMANDING OFFICER.....	FC 300	5703
Executive Officer.....	FC 300	5703
S-1/Adjutant.....	FC 300	1697
S-2.....	FC 300	1693
S-3.....	FC 300	1693
Construction Officer.....	FC 300	1693
Drafting & Surveying.....	FC 300	5175
S-4.....	FC 300	2622
Armory.....	FC 302	1883
Career Planner.....	FC 300	1889
Chaplain.....	FC 300	2682
Communications Officer.....	1117	1336
Construction Platoon.....	ES 101	1949
Utilities Platoon.....	ES 200	1437
Dining Facility.....	FC 303	1390
Heavy Equipment Officer.....	FC 200	1082
Legal Officer.....	FC 300	1896
Maintenance Officer.....	FC 200	1739
Medical Officer.....	FC 200	1632
Bn Special Services.....	FC 300	1697
Bn Police Sergeant.....	FC 301	2997
Mobile Electric Power Operations Office.....	1827	1770
Motor Transport Officer.....	FC 200	1848
Motor Transport Dispatcher.....	FC 200	1450
Motor Transport Operations.....	FC 200	1822
Special Services.....	FC 310	2991
Supply Officer.....	FC 201	1687
		1055
Officer of the Day.....	FC 300	1697
		5703
HEADQUARTERS AND SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	FC 309	1968
		1415
Duty NCO.....	FC 309	1968
COMPANY "A"		
Commanding Officer/1st Sergeant.....	FC 310	2991
		1417
Heavy Equipment MT Officer.....	FC 200	1082
Duty NCO.....	FC 310	2991
COMPANY "B"		
Commanding Officer/1st Sergeant.....	FC 309	1325
		2981
Heavy Equipment MT Officer.....	FC 200	1822
Duty NCO.....	FC 309	1325
COMPANY "C"		
Commanding Officer/1st Sergeant.....	FC 310	2971
		1413
Duty NCO.....	FC 310	2971

Organization	Bldg	Phone
BULK FUEL COMPANY		
Commanding Officer/1st Sergeant.....	FC 304	1487
		1427
Bulk Fuel Maintenance.....	1828	1017
		1095
Bulk Fuel Supply.....	914	2961
Duty NCO.....	FC 304	1487
ENGINEER SUPPORT COMPANY		
Commanding Officer/1st Sergeant.....	FC 311	1332
		1345
Duty NCO.....	FC 311	1345
BRIDGE COMPANY		
Commanding Officer/1st Sergeant.....	FC 304	3758
		1402
Supply.....	1826	1969
Duty NCO.....	FC 304	3758
WM Duty NCO.....	FC 304	3758
TOPOGRAPHICAL PLATOON		
Platoon Commander.....	FC 311	2926
Survey Section.....	FC 311	2926
Survey Warehouse.....	1116	1726
8th MOTOR TRANSPORT BATTALION, 2d FSSG		
COMMANDING OFFICER.....	FC 400	5805
Executive Officer.....	FC 400	1825
Sergeant Major.....	FC 400	1787
S-1/Adjutant.....	FC 400	2951
S-2/S-3.....	FC 400	3922
		1820
S-3 Training.....	FC 400	1820
S-4.....	FC 400	1684
Armory.....	FC 302	1376
Battalion Dispatcher.....	926	3373
Battalion Truckmaster.....	FC 101	1485
Career Planner.....	FC 400	1397
Communication Section.....	FC 101	3745
Maintenance.....	FC 100	3574
Maintenance Supply.....	FC 100	3578
Medical Officer.....	FC 313	5798
Maintenance Operations.....	FC 100	3866
Chief.....	FC 415	1808
Supply Officer.....	1118	5274
		1495
Officer of the Day.....	FC 400	2951
HEADQUARTERS & SERVICE COMPANY		
Commanding Officer/1st Sergeant.....	FC 416	1841
		1970
Duty NCO.....	FC 416	1841
TRANSPORT COMPANY		
Commanding Officer/1st Sergeant.....	FC 416	3988
		1406
Dispatcher.....	FC 101	1485
		1898
Duty NCO.....	FC 416	3988
TRUCK COMPANY		
Commanding Officer/1st Sergeant.....	FC 415	3884
		1636
Dispatcher.....	926	3373
Truckmaster.....	927	3411
Duty NCO.....	FC 415	3884

Organization	Bldg.	Phone
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SEPARATE COMPANIES, 2d FSSG

2d AIR AND NAVAL GUNFIRE LIAISON COMPANY, 2d FSSG

COMMANDING OFFICER	FC 400	5016
Executive Officer.....	FC 400	3415
Company 1st Sergeant.....	FC 400	5278
S-1.....	FC 400	3464
S-3.....	FC 400	1002
		5001
S-4.....	FC 400	1481
		5001
Adjutant.....	FC 400	3464
Armory.....	FC 302	1376
Communications Officer.....	FC 251	3483
Communications Chief.....	FC 251	3591
Education	FC 414	1912
Embarkation	FC 414	1481
Engineer Section.....	FC 251	3483
Gunnery Sergeant	FC 414	1448
Human Relations	FC 414	1912
Legal.....	FC 400	3464
MMO.....	FC 400	1481
Motor Transport Officer.....	FC 251	5212
		1798
Parachute Loft.....	FC 260	1863
Supply Officer.....	107	5007
Supply Chief.....	107	5007
Brigade Platoon 1.....	FC 414	5108
Duty NCO.....	FC 414	1448
Duty Officer (After 1630)	FC 400	1481

2D FSSG

Organization	Bldg	Phone
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2d FORCE RECONNAISSANCE COMPANY, 2d FSSG

COMMANDING OFFICER	FC 400	1403
Executive Officer.....	FC 400	1403
1st Sergeant.....	FC 400	1676
S-1.....	FC 400	1676
S-2.....	FC 400	1411
S-3.....	FC 400	2225
S-3A.....	FC 400	1411
S-4.....	FC 400	3545
Communications Officer.....	FC 251	1816
Motor Transport.....	FC 251	1664
Parachute Loft.....	FC 260	1863
		1342
Platoon Commanders.....	FC 520	1350
Scuba Locker.....	FC 260	1342
Supply Officer.....	FC 520	1350
Supply.....	107	1816
		1492
Duty NCO (After 1630)	FC 520	1350

FLEET MARINE FORCE ATLANTIC

Marine Amphibious Units

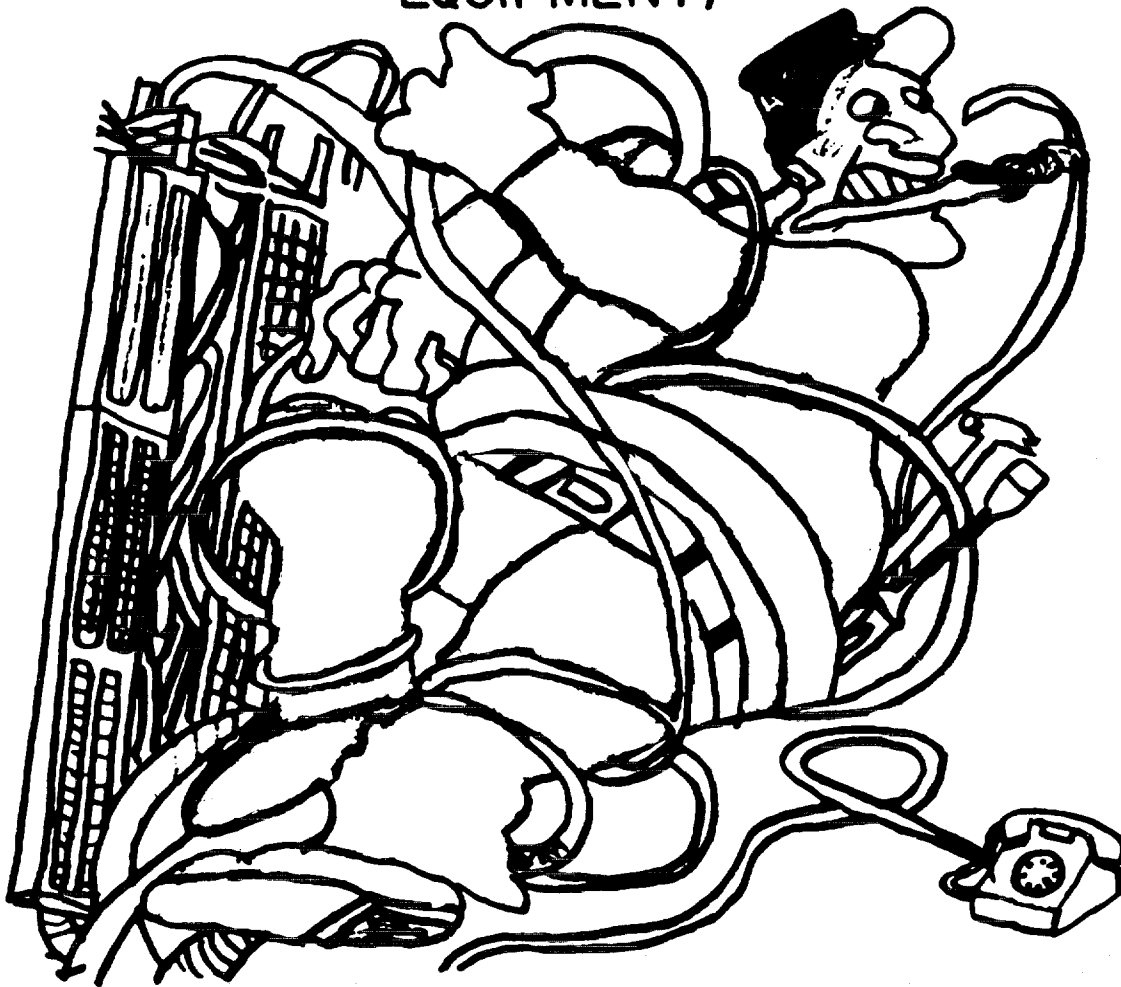
and

Landing Support Units

Organization	Bldg	Phone
MAU		
Commanding Officer	TC 727	0713
Executive Officer	TC 727	0713
S-2	TC 727	0748
S-3	TC 727	0167
ALO	TC 727	0364
FSC	TC 727	0364
S-4	TC 727	0167
CEO	TC 727	0364
Comm Chief	TC 727	0748
Comm Warehouse	TC 724	0866
Duty NCO	TC 709	0760
Officer of the Day	TC 727	0713

Organization	Bldg	Phone
MSSG		
Commanding Officer	TC-726	0340
Executive Officer	TC-726	0340
1st Sergeant	TC-726	0276
Admin	TC-726	0340
Operations Officer	TC-726	0276
Supply Officer	TC-726	0276
Dental	Vic TC-745	0496
Maintenance Officer	TC-726	0789
Motor Pool	TC -942	0178
Duty NCO	TC-726	0287

"HELP" (DON'T TAMPER WITH TELEPHONE EQUIPMENT)



MARINE CORPS AIR STATION

Organization	Bldg	Phone
DIALING INSTRUCTIONS		
To call MCAS Official Telephones from Camp Lejeune Base Telephones		
Class "A"	Dial 9, wait for second dial tone, dial listed number	
Class "C"	Dial 00, then dial last three digits of listed number	
Applies to 455-6xxx numbers only		
To call MCAS from Jacksonville Telephones - dial listed number		
To call Camp Lejeune Official Telephones from MCAS - dial 9, wait for second dial tone, dial 451 and listed number		
Camp Lejeune Directory Assistance	0-1115 * 6255	
Camp Lejeune Operator	0-1113	
Cherry Point	"4" Ask Operator for Cherry Point	
Time/Temperature	455-0000	
Locator	455-6508	
* On Station Calls Only		

EMERGENCY NUMBERS

FIRE/CRASH	455-6333
MILITARY POLICE	455-6111
AMBULANCE	455-6666

DUTY NUMBERS

Officer of the Day	122	455-6111
Sergeant of the Guard	122	455-6111
Medical Officer	302	455-6512
Operations Duty Officer	843	455-6316

OFFICERS OF THE DAY

Marine Corps Air Station	122	455-6111
Marine Air Group 26	504	455-6126
Marine Air Group 29	4122	455-6320
MATCS-28	G 1	451-0202

HEADQUARTERS, MARINE CORPS AIR STATION (H)

COMMANDING OFFICER	820	455-6305
Executive Officer	820	455-6306
Sergeant Major	820	455-6306
Adjutant	820	455-6307
Administrative Chief	820	455-6503
S&C Files/RPS	820	455-6307
S-1	820	455-6358 * 6075 * 6075 * 6922
Personnel Officer	820	455-6702
Civilian Personnel	818	455-6312
S-3	843	455-6311
Airfield Operations Officer	843	455-6311
Communication-Electronics Officer	849	455-6774
S-4	820	455-6506 455-6518 * 6281 * 6068 * 6281 * 6068
Chief	820	* 6281 * 6068

*Restricted to MCAS Calls

Organization	Bldg	Phone
Facilities Plans	820	455-6506 * 6281
Facilities Operation	820	455-6518 * 6281
Police Sergeant	814	* 6061
Caretaker MCHOLF Oak Grove		224-6941

HEADQUARTERS AND HEADQUARTERS SQUADRON

COMMANDING OFFICER	818	455-6108
Executive Officer	818	455-6108
Adjutant	818	455-6108
1st Sergeant	818	* 6070
Administration Chief	818	455-6107
Chief Clerk	818	* 6978
Dining Facility	226	455-6811
Reenlistment & Discharge	818	455-6107 455-6108
Driver's Safety	312	455-6329
Training	815	* 6046 455-6662 * 6209
Training NCO	312	* 6209
Duty NCO	212	455-6043

A

ADJUTANT	820	455-6305
ADMINISTRATION CHIEF	820	455-6503
AEROLOGY	843	455-6828
AIRCRAFT MAINTENANCE OFFICER	840	455-6627 455-6626
AIR OBSERVATION SCHOOL	4120	455-6527 *6087
AIR/SEA RESCUE	504	455-6150
After Working Hours	504	455-6126
AIR TRAFFIC CONTROL OFFICER	843	455-6657
AMBULANCE SERVICE	302	455-6666
AREA AUDITOR	312	455-6526 * 6457
ATHLETIC OFFICE	202	455-6714
AUTOMOTIVE HOBBY SHOP	828	455-6709
AVIATION SAFETY OFFICER	843	455-6311
AVIATION TRAINING	312	455-6869
AVIATION TRAINING SUPPORT CENTER		
Officer in Charge	320	455-6673 * 6062 455-6673 * 6062 * 6062
NCOIC	320	455-6673 * 6062
NTEC Rep LANT	320	455-6670

MARINE CORPS AIR STATION

Organization	Bldg	Phone
HEADQUARTERS, MARINE CORPS AIR STATION (Continued)		
B		
BACHELOR OFFICERS QUARTERS	705	455-6621
Ready Pilot.....	705	* 6265
BANK OF NORTH CAROLINA, N. A.	200	455-6624
Hours - 0900 - 1700 Mon thur Fri		
0900 - 1800 All Military Paydays		
BARBER SHOP		
MAG-29.....	4126	455-6538
MCAS(H).....	232	347-2168
BARRACKS (Enlisted Men)		
H&HS.....	211	* 6249
H&MS-26.....	4020	* 6246
H&MS-29.....	4010	* 6452
HMH-269.....	4025	* 6959
HMH-362.....	4010	* 6951
HMH-461.....	4015	* 6957
HMM-162.....	212	* 6043
	213	* 6003
HMM-261.....	213	* 6003
HMM-263.....	4015	* 6992
HMM-365.....	4020	* 6440
HMT-204.....	4020	* 6440
MABS-26.....	4020	* 6413
MABS-29.....	4025	* 6950
MWSG-27.....	213	455-6562
HML-167.....	4026	* 6251
VMO-1.....	4025	* 6950
BASIC TRAINING	312	* 6209
BEAUTY SHOP	232	347-4377
BELL HELICOPTER FIELD OFFICE	425	347-5630
BOAT DOCKS	2800	455-6578
BOEING VERTOL		347-1311
BOWLING CENTER	205	455-6582
BOY SCOUT LODGE	608	455-6820
C		
CERAMICS HOBBY SHOP	811	455-6711
CHAPEL	236	455-6801
CHAPLAINS		
Catholic.....	236	455-6706
Protestant.....	236	455-6801
CHILD CARE CENTER	604	455-6712
CIVILIAN PERSONNEL	818	455-6702
CLEANERS	413	347-5748
CLUBS		
Officers.....	710	347-4149
		* 6409
Staff NCO.....	901	455-6707
Staff NCO Bar.....	901	* 6411
Enlisted.....	208	* 6404

Organization	Bldg.	Phone
COMMISSARY	414	455-6395
		455-6396
COMMISSIONED OFFICERS MESS (OPEN)	710	347-4149
Ready Pilot.....	710	* 6409
COMMUNICATION-ELECTRONICS		
Communication-Electronics Officer.....	822	455-6774
Communication Chief.....	822	* 6974
Communication Center Officer.....	822	455-6741
Communication Center Supervisor.....	822	* 6083
Ground Electronics.....	849	455-6146
		* 6495
COMPTROLLER	130	455-6638
Accounts Maintenance.....	130	455-6684
Cost Reduction Coordinator.....	130	455-6769
Deputy Comptroller.....	130	455-6638
Fiscal Officer.....	130	455-6675
Payroll/Timekeeper.....	130	455-6769
CONSOLIDATED CLUB MANAGEMENT SYSTEM	706	455-6301
CORRECTIONAL CUSTODY FACILITY		
	211	455-6343
		6443
CONSOLIDATED PACKAGE STORE	901	455-6849
COUNSELING CENTER	240	455-6579
		* 6415
COUNTERINTELLIGENCE OFFICER	312	455-6897
		* 6403
CRASH CREW		
Crash/Fire (Emergency).....	18	455-6333
Fire Chief.....	502	455-6620
Fire Barn.....	502	455-6629
Truck Master.....	423	455-6887
CUSTODIAN RECREATION FUND	202	455-6628
CRIMINAL INVESTIGATION DIVISION	122	455-6639
D		
DATA PROCESSING	130	455-6361
DeLALIO ELEMENTARY SCHOOL	TC1500	451-0601
DENTAL DEPARTMENT		
Dental Officer.....	302	455-6893
Dental Appointments.....	302	455-6515
		455-6516
DISBURSING OFFICER	425	455-6371
Fiscal Section.....	425	455-6371
OIC Pay Records.....	425	455-6371
OIC Pay Section.....	425	455-6371
Pay Section.....	425	455-6371
Discharge Section.....	425	455-6371
Travel Section.....	425	* 6041
		455-6583

MARINE CORPS AIR STATION

Organization	Bldg.	Phone
DISPENSARY (See MEDICAL SECTION)		
E		
EDUCATION OFFICER.....	312	455-6153 455-6680 * 6233
EMERGENCY DESK (Public Works).....	122	455-6817
After Working Hours.....	1202	451-3001
ENLISTED POOL.....	202	* 6436
EXCHANGE (See Marine Corps Exchange)		
F		
FILM LIBRARY.....	312	455-6676
FIRE DEPARTMENT		
Crash/Fire Reporting.....	18	455-6333
Fire Chief.....	502	455-6620
NCOIC.....	502	455-6629
FISCAL OFFICER.....	130	455-6675
FOOD SERVICES		
Dining Facility Officer.....	820	455-6506 455-6518 455-6811
Station Food Tech.....	218	455-6710
Dining Facility 226.....	226	455-6151 455-6811
Dining Facility 4012.....	4012	455-6851
FOOD SERVICE TECH.....	218	455-6710
FLIGHT CLEARANCE.....	843	* 6968
FLIGHT SUPPORT.....	843	455-6311
FLYING CLUB.....	831	347-7146
FUEL FARM (Station).....	143	455-6644
G		
GAME WARDEN.....	814	455-6111
GAS STATION.....	410	347-5681
GROUND ELECTRONICS		
Code 33 Field Officer - NAVELEX.....	849	455-6146 * 6495
GROUND SAFETY OFFICER.....	820	* 6068
GYMNASIUM.....	202	455-6714

Organization	Bldg.	Phone
H		
H&HS TRAINING.....	570	455-6586
HEATING PLANT.....	4151	455-6539
HOBBY SHOPS		
Automotive.....	828	455-6709
Ceramics.....	811	455-6711
Woodworking.....	827	455-6690
HOUSING (Family)- See Page 23		
I		
INTELLIGENCE OFFICER.....	312	455-6897
INVESTIGATIVE SERVICE (CID).....	122	455-6639
ISSUE POINT MLV 73.....	124	455-6529
J		
JOINT PUBLIC AFFAIRS.....	804	455-6197 455-6198
JOINT RECEPTION CENTER		
OIC.....	211	455-6554
NCOIC.....	211	455-6568
Admin Section.....	211	* 6906
Station Locator.....	211	455-6508
Duty NCO.....	211	455-6568
L		
LAUNDRY.....	413	347-5748
LAW CENTER, MCAS (H) - 2D MAW		
Director.....	216	455-6169 455-6160
Trial Counsel.....	216	* 6207
Court-Martial Docket Section.....	216	* 6207
Admin/Discharge Section.....	216	* 6096
Legal Assistance.....	216	* 6096
Defense Counsel.....	216	* 6096
LIBRARY.....	201	455-6715 * 6942
LOCATOR.....	211	455-6508
LOGISTICS.....	820	455-6506
M		
MAIN GATE.....		451-0849 455-6111
MARINA.....	2800	455-6578

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg.	Phone
HEADQUARTERS, MARINE CORPS AIR STATION (Continued)		
MARINE CORPS EXCHANGE		
Exchange Manager.....	232	347-2168
Barber Shop.....	232	347-2168
Beauty Shop.....	232	347-4377
Bowling Center Snack Bar.....	205	455-6582
Cleaning & Pressing Shop.....	413	347-5748
MAG-29 Barber Shop.....	4126	455-6538
MAG-29 Exchange.....	4126	455-4144
Porta-Snack Bar.....		455-6736
Service Station.....	410	347-5681
Seven Day Store.....	233	455-1717
Snack Bar/Pizza Parlor/Service Club.....	208	455-6661
Optical Shop/Watch Repair.....	232	347-2169
MARINE CORPS PROPERTY.....	130	455-6694 <i>-6602</i> <i>-6356</i>
MAINTENANCE		
Routine.....	122	455-6817
Emergency.....	122	455-6816
After Working Hours.....	1202	451-3001
Shop Planner.....	122	455-6719
MATERIAL (MCAS).....	840	* 6228
MEDICAL DEPARTMENT-NRMC		
Medical Officer.....	302	455-6512
Administrative Officer.....	302	455-6513
Ambulance.....	302	455-6666
Aviation Exam.....	302	455-6514
Health Records.....	302	455-6511
Information.....	302	455-6512
Laboratory.....	302	455-6500
Pharmacy.....	302	455-6511 455-6512 455-6514
MOTOR TRANSPORT DEPARTMENT		
Motor Transport Officer.....	118	455-6705
Dispatcher.....	117	455-6558
Foreman.....	119	455-6843
Heavy Equipment.....	119	* 6239
Licensing.....	119	* 6239
Maintenance Leadingman.....	118	455-6705
2d MAW Drivers School.....	TC 1130	451-0439
N		
NAESU.....	4141	455-6394
NAESU/NETS COORDINATOR.....	518	455-6841
NAMTD-1027		
Officer in Charge.....	222	455-6701
Administration Officer.....	222	455-6610
NAVY RELIEF.....	299	455-1174 * 6431
NAVAL INVESTIGATIVE SERVICE.....		
If No Answer Call.....	122	455-6668 455-6111 451-2726
NBC OFFICER.....	312	455-6869

Organization	Bldg	Phone
O		
OFFICERS CLUB.....	710	347-4149
OPERATIONS DEPARTMENT		
Operations Officer.....	843	455-6312
Operations Chief.....	843	455-6313
Aerology Officer.....	843	455-6828
Aviation Safety Officer.....	843	455-6311
Duty Operations Officer.....	843	455-6316
Flight Clearance.....	843	455-6317
		455-6316
Flight Manifesting Information.....	843	455-6827
Flight Support.....	843	455-6311
Meteorology.....	843	455-6828
VIP Lounge.....	843	455-6827
Visiting Aircraft Lines.....	843	455-6316
Weather Officer.....	843	455-6828
Weather Information.....	843	455-6322
P		
PACIFIC MISSILE TEST CENTER.....	4106	455-6855
PHOTOGRAPHIC ANNEX		
NCOIC.....	804	455-6826
PHYSICAL FITNESS CENTER.....	202	455-6714
POST OFFICE.....		
Military Post Office.....	234	455-6501
	234	455-6501
PRATT-WHITNEY LOGISTICS REP.....		347-6530
PROVOST MARSHAL SECTION		
Assistant Provost Marshal.....	122	455-6111
Criminal Investigation Division (CID).....	122	455-6639
MCAS(H) Desk Sergeant.....	122	455-6111
Naval Investigative Service.....	122	455-6111
PUBLIC AFFAIRS.....	804	455-6197 455-6198
PUBLIC WORKS DEPARTMENT		
OICC/ROICC Construction Inspection Branch..	122	455-6141
Buildings and Grounds.....	121	455-6543
Maintenance & Utilities Division		
Director.....	122	455-6818
Heating Plant.....	4151	455-6539
Water & Sewage Plants Head.....	110	455-6721
	3526	455-6723
Leadingman, Building Trades.....	122	455-6816
Leadingman, Emergency Service.....	122	455-6816
Leadingman, General Service.....	122	455-6816
Leadingman, Maintenance.....	122	455-6816
Leadingman, Mechanical Trades.....	122	455-6816
Leadingman, Utilities Branch.....	4151	455-6539
Maintenance Scheduler.....	122	455-6818
Quartermaster.....	122	455-6818
Sewage Treatment Plant.....	3526	455-6723
Water Treatment Plant.....	110	455-6721
Transportation Division		
Transportation Officer.....	118	455-6705
Dispatcher.....	117	455-6558
Work Reception Desk		
Routine Trouble/Service.....	122	455-6817
Emergency Trouble.....		455-6817
After Working Hours.....	1202	451-3001

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg.	Phone
R		
RED CROSS (See Marine Corps Base Listing)		
REFUELER (Station)	143 526-A	455-6644 * 6445
REGISTERED PUBLICATIONS OFFICER	820	455-6503
ROICC	122	455-6141
ROTOVUE	804	455-6197
S		
S-1 MCAS	818	455-6358
Personnel.....	818	* 6075
Civilian Personnel.....	818	455-6702
Services.....	818	* 6075
S-3 MCAS	843	455-6312
Operations Chief.....	843	455-6313
Airfield Operation Officer.....	843	455-6311
Aviation Safety Officer.....	843	455-6311
Air Traffic Control Officer.....	843	455-6657
S-4 MCAS	820	455-6506
		455-6518
		* 6281
		* 6068
Chief.....	820	* 6281
		* 6068
Facilities Plans.....	820	455-6506
		* 6281
Facilities Operation.....	820	455-6518
		* 6281
Police Sergeant.....	814	* 6061
Ground Safety Officer.....	820	455-6506
		* 6068
Caretaker MCHOLF Oak Grove.....		224-6941
SCHOOLS		
Brewster Junior High.....	40	451-2561
DeLalio Elementary School.....	TC1500	451-0601
Lejeune High.....	825	451-2451
SCOUT LODGE	608	455-6820
2D MARINE AIR WING PERSONNEL SUBSECTION		
OIC.....	211	455-6554
NCOIC.....	211	455-6568
Admin Section.....	211	* 6912
		* 6906
Station Locator.....	211	455-6508
Duty NCO.....	211	455-6568
SELF SERVICE CENTER	130	455-6553
SERVICE CLUB	208	* 6404
SERVICE STATION	410	347-5681

Organization	Bldg	Phone
SPECIAL SERVICES OFFICER	204	455-6704
		* 6229
NCOIC.....	204	455-6704
Athletics.....	204	455-6714
Auto Hobby Shop.....	828	455-6709
Bookkeeper.....	204	455-6628
Bowling Center.....	205	455-6582
Ceramics Hobby Shop.....	811	455-6711
Custodian.....	204	455-6628
Gymnasium.....	204	455-6714
Issue Room.....	204	455-6704
Library.....	201	455-6715
		* 6942
Marina.....	2800	455-6578
Theater.....	240	* 6292
Weight Room.....	204	455-6714
Woodworking.....	827	455-6690
STATION LOCATOR	211	455-6508
SUPPLY DEPARTMENT		
Supply Officer	130	455-6356
		* 6247
		* 6247
NCOIC.....	130	* 6247
		455-6356
Customer Service Division.....	130	455-6631
		* 6247
Flight Equipment.....	130	455-6357
Fuel Division.....	130	* 6006
Fuel Division Maintenance.....	Vic 520	455-6694
		* 6941
Material Branch.....	130	455-6678
		* 6980
Property Control Division.....	130	455-6602
Station Supply.....	130	455-6356
Training Editing Section.....	130	455-6631
Warehouse Division.....	130	455-6553
Warehouse Chief.....	130	455-6553
T		
TACAN	3000	* 6230
TECHNICAL REPRESENTATIVES		
Bell.....		347-5630
General Electric.....	589	346-4998
Pratt-Whitney.....		347-5630
NAESU/NETS.....	518	455-6841
TELEPHONE OFFICER	1104	451-2531
		455-6831
Telephone Business Office.....	1104	451-2531
		455-6831
THEATER	240	* 6292
TME-22		
Officer in Charge	4120	455-6613
NCOIC.....	4120	* 6238
Monitors.....	4120	455-6785
Admin Office.....	4120	* 6017
TME-22 SUB-UNITS	4120	455-6613
		455-6785

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg	Phone
HEADQUARTERS, MARINE CORPS AIR STATION (Continued)		
V		
VISITING AIRCRAFT LINES	843	455-6316
W		
WAREHOUSES		
Supply	130	* 6980
WATER TREATMENT PLANT	110	455-6721
WEATHER SERVICE		
Meteorological Radar Van	860	* 6057
WING PERSONNEL ASSIGNMENT DET.		
	4120	455-6554
		455-6568
		* 6906
WOMEN MARINES SECURITY		
Duty NCO	4015	* 6979
	4015	* 6282
HEADQUARTERS MAG-26		
COMMANDING OFFICER	504	455-6126
Executive Officer	504	455-6126
Sergeant Major	504	455-6581
Adjutant	504	455-6126
		455-6127
		455-6128
S-2	504	455-6137
Intelligence Chief	504	455-6727
S-3/Operations Officer	504	455-6150
		* 6009
Operations Chief	504	455-6360
		* 6082
S-4/Logistics Officer	504	455-6101
		* 6063
Logistics Chief	504	455-6734
Building & Grounds Officer	504	455-6101
Work Request Control	504	455-6734
Career Planning Center	312	455-6525
Central Files	504	* 6995
Chaplain	504	455-6188
Communications Officer	3502	* 6945
Communications Chief	3502	* 6223
Radio Chief	3502	* 6958
MAG-26 Communications Center	504	* 6913
Embarkation Officer	504	* 6967
Embarkation Chief	504	* 6967
Fiscal	504	455-6746
Flight Line Shack	504	* 6263
GMS Training	504	* 6930
Ground Safety Officer	504	455-6730
Group Guard	518	* 6433
Guard Shack	518	455-6342
Human Relations	504	* 6458
Informational Services Officer	804	455-6197
Inspector	504	455-6734
Leadership/Special Services	504	455-6136
Locator	211	455-6508
MMS/TAD Orders Clerk/Repro.	504	* 6497

Organization	Bldg	Phone
MAINTENANCE DEPARTMENT		
Airframes Officer	518	455-6682
Analysis Officer	518	455-6517
		* 6014
Avionics Officer	4141	455-6116
Avionics Chief	4141	* 6065
Avionics 610	4141	* 6483
Avionics 620	4141	* 6939
Component Shop	518	* 6921
Engine Shop	518	455-6839
Flight Equipment	504	455-6864
		* 6481
Ground Support Equipment	4146	455-6708
		* 6494
LMRL	424	455-6659
		* 6430
Maintenance Officer	518	455-6346
Assistant Maintenance Officer	518	455-6347
Maintenance Chief	518	455-6380
Maintenance Control	518	455-6161
		* 6073
Material/ASU	518	455-6521
		* 6434
Ordnance Officer	518	455-6837
Power Plants	518	* 6905
Test Cell	537	* 6919
Test Equipment	4141	455-6561
Quality Assurance	518	455-6681
Material Officer	424	* 6200
NATOPS	504	* 6988
Public Affairs Officer	804	455-6197
Rapid Refueler	509	* 6237
S&C Files	504	455-6652
SUPPLY DEPARTMENT		
Supply Officer	424	455-6594
Supply Chief	424	455-6823
GASSC Officer	425	455-6540
SRS/SCS	425	455-6745
		* 6916
NORS Clerk	425	* 6972
RMS/IMRL	424	455-6659
AWP	518	* 6434
SSS	504	455-6725
		* 6080
SAS	425	* 6472
ADP	425	455-6697
Pool/CCS	518	455-6521
CMS	424	* 6210
Marine Corps Property	424	455-6824
Warehouse	424	* 6213
Technical Representatives		
Bell		347-5630
Pratt-Whitney		347-5630
Tool Control	518	455-6839
Training	504	455-6735
		* 6930
Duty Officer	504	455-6126
H&MS-26		
COMMANDING OFFICER	518	455-6326
Executive Officer	518	455-6327
Sergeant Major	518	455-6327
Adjutant	518	455-6327
1st Sergeant	518	* 6439
S-1 Unit Diary	518	455-6551

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg	Phone
S-2.....	518	455-6517 * 6014
S-4.....	518	455-6544 * 6976
Administration Chief.....	518	* 6976
Armory.....	518	* 6909
Avionics Production.....	4141	* 6939
Battery Shop.....	518	* 6278
Career Planner.....	518	* 6000
Education Office.....	518	* 6026
Engine Shop.....	518	455-6839
Ground Support PEB.....	4146	* 6054
Hydraulics.....	518	* 6437
Hydraulics Shop.....	504	* 6911
Legal.....	518	455-6507 * 6976
MMS.....	518	* 6215
NAESU.....	518	455-6841 455-6842
NBC NCO.....	518	* 6444
Operations Officer.....	518	455-6522
Operations NCO.....	518	* 6444
Power Plants.....	518	* 6905
Quality Assurance.....	518	455-6837
Supply Service Unit.....	518	* 6004
Technical Publications Library.....	518	* 6289
Training NCO.....	518	455-6522
Duty NCO.....	4020	* 6246

HMH-362

COMMANDING OFFICER.....	504	455-6805
Executive Officer.....	504	455-6805
Sergeant Major.....	504	455-6806
Administration Chief/S-1.....	504	455-6806 * 6455
S-2.....	504	* 6454
Aviation Safety.....	504	* 6027
Avionics Shop.....	504	* 6966 * 6492
Career Planner.....	504	455-6737 * 6261
Corrosion Control.....	504	* 6250
Flight Equipment.....	504	* 6407
Ground Safety.....	504	* 6027
GSE Line Shack.....	504	* 6258
Legal.....	504	455-6728
Logistics/S-4.....	504	455-6728
Maintenance Officer.....	504	455-6737
Maintenance Chief.....	504	455-6737
Maintenance Control.....	504	455-6737 * 6261
Maintenance Control Expeditor.....	504	* 6295
NATOPS.....	504	* 6027
Operations/S-3.....	504	455-6645 * 6284
Quality Assurance.....	504	455-6737 * 6261
Ready Room.....	504	455-6658
Training.....	504	455-6645
Warehouse.....	TC 762	451-0157
Duty NCO.....	4010	* 6452

Organization	Bldg	Phone
HMH-461		
COMMANDING OFFICER.....	504	455-6640
Executive Officer.....	504	455-6640
Sergeant Major.....	504	* 6074
Administration/S-1.....	504	455-6548
Aircraft Maintenance.....	504	455-6743
Aviation Safety.....	504	* 6067
Avionics.....	504	* 6217
Career Planner.....	504	* 6078
Corrosion Control.....	504	* 6417
Education NCO.....	504	* 6078
Flight Equipment.....	504	455-6743
Flight Line.....	504	* 6469
GSE.....	504	* 6469
Hydraulics.....	504	455-6743
Intelligence/S-2.....	4015	* 6078
Legal.....	504	* 6078
Logistics/S-4.....	504	455-6368 * 6294
Maintenance Administration.....	504	455-6743
Maintenance Material.....	504	* 6468
Maintenance Control.....	504	* 6487
Material.....	504	* 6421
Metal Shop.....	504	* 6417
Operations/S-3.....	504	455-6145
Quality Assurance.....	504	* 6900
Ready Room.....	504	455-6569
S&C.....	504	* 6078
Tool Room.....	504	455-6743
Training.....	504	455-6145
Warehouse.....	TC 572	451-0257
Duty NCO.....	504	* 6957
Duty Officer.....	504	455-6569

HMM-162

COMMANDING OFFICER.....	515	455-6646
Executive Officer.....	515	455-6634
Sergeant Major.....	515	* 6463
Adjutant.....	515	455-6634
S-1 Officer.....	515	455-6646
1st Sergeant.....	515	* 6053
Administration Chief.....	515	* 6402
Career Planner.....	515	455-6798 455-6892
Legal.....	515	* 6402
S-2.....	515	* 6463
S-3/Operations.....	515	455-6798
Operations Officer.....	515	455-6798
Ready Room.....	515	455-6892
Safety/NATOPS.....	515	* 6964
Aviation Supply.....	515	* 6218
Avionics.....	515	* 6993
S-4.....	515	455-6689
Maintenance Officer.....	515	455-6792 455-6664
Maintenance Control.....	515	* 6996
Material.....	515	455-6689
Flight Equipment.....	515	* 6993
Quality Assurance.....	515	* 6050
Training.....	515	* 6964
Warehouse.....	TC 572	451-0257
Duty NCO.....	212	* 6043
	213	* 6003

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg	Phone
HMM-261		
COMMANDING OFFICER	515	455-6697
Executive Officer.....	515	455-6683
Sergeant Major.....	515	455-6683
Adjutant.....	515	455-6697
Administration/S-1.....	515	455-6683
Aircraft Maintenance Officer.....	515	455-6698
Aviation Safety.....	515	455-6616
Avionics.....	515	* 6030
Flight Line.....	515	* 6933
Intelligence/S-2.....	515	455-6616
Legal Officer.....	515	455-6683
Logistics/S-4.....	515	* 6473
Maintenance Control.....	515	455-6698
Maintenance Office.....	515	455-6698
Material.....	515	455-6693
NATOPS.....	515	455-6616
Operations/S-3.....	515	455-6616
Ready Room.....	515	455-6879
Training.....	515	* 6983
Warehouse.....	TC 572	451-0257
Duty NCO.....	213	* 6003
Duty NCO.....	4010	* 6951
Duty Officer	515	455-6879
HMM-263		
COMMANDING OFFICER	515	455-6154
Executive Officer.....	515	455-6154
Adjutant.....	515	* 6923
Sergeant Major.....	515	* 6910
Administration/S-1.....	515	* 6924
Aviation Safety.....	515	* 6962
Check Crew.....	515	* 6936
Intelligence/S-2.....	515	* 6954
Logistics/S-4.....	515	* 6949
Maintenance/Control.....	515	455-6302
		* 6981
Material Control.....	515	455-6155
NATOPS.....	515	* 6962
Operations/S-3.....	515	455-6158
Ready Room.....	515	455-6159
Training.....	515	* 6929
Duty NCO.....	4015	* 6992
HMM-365		
COMMANDING OFFICER	515	455-6336
		* 6222
Executive Officer.....	515	455-6336
		* 6222
Sergeant Major.....	515	455-6336
		* 6222
Administrative Chief/S-1.....	515	455-6336
		* 6222
S-2/CMCC.....	515	* 6211
		455-6187
Operations/S-3/Training.....	515	* 6211
		455-6187
		* 6274
Operations Officer.....	515	455-6187
		* 6211

Organization	Bldg.	Phone
Logistics/S-4.....	515	* 6211
		455-6187
Avionics.....	515	* 6203
Maintenance Officer.....	515	455-6192
Maintenance Control.....	515	* 6202
NATOPS/Safety.....	515	* 6211
		455-6187
Ready Room.....	515	455-6617
Tool Room.....	515	* 6203
Duty NCO	4020	* 6440
HMT-204		
COMMANDING OFFICER	504	455-6132
Executive Officer.....	504	455-6132
Sergeant Major.....	504	* 6032
Adjutant.....	504	455-6131
Administration Officer.....	504	455-6131
Administration Chief/S-1.....	504	455-6131
Operations/S-3.....	504	455-6672
		* 6990
S-4.....	504	* 6965
S-5.....	504	* 6965
Aviation Safety.....	504	455-6883
Avionics.....	504	* 6965
Logistics/Supply.....	504	* 6969
Maintenance Officer.....	504	455-6669
Maintenance Chief/Admin.....	504	* 6031
Maintenance Control.....	504	* 6908
Maint. Supply.....	504	6290
NATOPS.....	504	455-6883
Ready Room.....	504	* 6990
Training.....	504	6491
Duty NCO.....	4020	* 6440
Duty Officer	504	455-6672
MABS-26		
COMMANDING OFFICER	3502	455-6351
Executive Officer.....	3502	455-6352
Sergeant Major.....	3502	455-6352
Adjutant.....	3502	455-6352
Administration Chief.....	3502	455-6351
Education NCO.....	3502	* 6091
Legal.....	3502	* 6945
Material.....	3502	* 6267
NBC NCO.....	3502	455-6882
Operations.....	3502	* 6938
SRB Clerk.....	3502	455-6351
Supply.....	3502	* 6267
TAFDS.....	Vic 520	* 6445
Training.....	3502	* 6938
Warehouse.....	3535	* 6907
Duty NCO.....	4020	* 6413
Duty Officer	3502	455-6531
NAMTD-1027		
OFFICER IN CHARGE	222	455-6701
Administrative Chief.....	222	455-6610

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg	Phone
MAG-29 HEADQUARTERS		
COMMANDING OFFICER	4122	455-6320
Executive Officer.....	4122	455-6345
Sergeant Major.....	4122	455-6753
Adjutant.....	4122	455-6320
S-1 Officer.....	4122	* 6291
Administrative Officer.....	4122	455-6345
Chief Clerk.....	4122	455-6614
File Clerk.....	4122	455-6320
S-2/Intelligence Officer.....	4122	455-6767
Intelligence Chief.....	4122	* 6450
S-3/Operations Officer.....	4122	455-6898
Asst Operations Officer.....	4122	455-6797
Operations Chief.....	4122	455-6367
CMS/RPS.....	4122	455-6345
Frag Officer.....	4122	455-6797
Guard.....	4010	455-6523
NBC Officer.....	4120	455-6848
Training Officer.....	4122	455-6367
S-4 /Logistics Officer.....	4122	455-6366
Assistant S-4 Officer.....	4122	* 6456
Embarkation.....	4122	455-6770
Logistics Chief.....	4122	455-6770
MIMMS.....	4120	* 6017
MMO.....	4122	* 6017
Armory.....	4120	* 6088
Chaplain.....	4120	455-6866
Communications Center.....	4120	455-6545
Mag-29 Inspector.....	4120	455-6797
Mag-29 Reproduction.....	4122	455-6345
Safety/Natops.....	4120	455-6752
		* 6047
EOD Team.....	4108	455-6535
		* 6059
Group Analysis.....	4120	455-6794
Group Supply Officer.....	4110	455-6350
Supply Chief.....	4110	455-6359
SRS Chief.....	4110	455-6847
Material Warehouse.....	TC 569	451-0482
	TC 760	451-0437
	TC 940	451-0731
Stock Control.....	4110	455-6557
GASSC Officer.....	4110	455-6847
Squadron Support Officer.....	4110	455-6608
		* 6280
		* 6286
Receiving Expeditor Unit.....	4110	* 6288
MATCU Cage.....	4110	* 6252
Marine Corps Property Officer.....	4110	455-6633
Fiscal.....	4110	455-6380
		* 6285
Fiscal Accounting.....	4110	455-6380
MAG-29 Duty Officer	4122	455-6345

H&MS-29

COMMANDING OFFICER	4106	455-6304
Executive Officer.....	4106	455-6649
Sergeant Major.....	4106	455-6717
Adjutant.....	4106	455-6649
Administration Officer.....	4106	* 6279
Administration Chief/SI.....	4106	455-6856
Aircraft Maintenance Officer.....	4106	455-6547
		455-6109
Air Frames.....	4106	455-6641

Organization	Bldg	Phone
Avionics Officer.....	4106	455-6303
Avionics NCOIC.....	4106	455-6761
Career Planner.....	4106	455-6648
		* 6275
CCS.....	4106	* 6408
CCS Pool.....	4106	* 6486
Flight Equipment OIC/NCOIC.....	4106	* 6484
General Support Equipment.....	4106	* 6098
IMRL.....	4106	455-6761
Legal Officer.....	4106	455-6856
Machine Shop.....	4106	455-6641
Maintenance Administration.....	4106	455-6547
Maintenance Chief.....	4106	455-6125
Material Officer/NCOIC.....	4106	455-6192
Metal Shop.....	4106	455-6641
Ordnance OIC.....	4106	455-6857
		* 6292
Ordnance Loading Area.....	4106	* 6955
Personnel/S-1.....	4106	455-6649
		455-6304
Power Plant Officer.....	4106	455-6791
Power Plant NCOIC.....	4106	* 6272
Power Plant (T-76).....	4106	* 6272
(T-400).....	4106	* 6271
Production Control.....	4106	455-6619
		* 6253
Quality Assurance Officer.....	4106	455-6874
		* 6423
Test Cell NCOIC.....	4106	* 6941
Test Equipment.....	4106	* 6276
Tool Room.....	4106	455-6641
Training.....	4106	455-6648
		* 6275
Duty NCO.....	4106	* 6452
Staff Duty NCO	4106	455-6649

MABS-29

COMMANDING OFFICER	TC 1110	451-0411
Executive Officer.....	TC 1110	451-0411
Sergeant Major.....	TC 1110	451-0473
Administrative Officer.....	TC 1110	451-0460
Administrative Chief.....	TC 1110	451-0359
Communications.....	TC 1119	451-0467
		0151
Radio Chief.....	TC 1029	451-0332
Food Service.....	TC1021	451-0186
Logistics/Embarkation.....	TC1029	451-0464
		0326
Operations.....	TC1029	451-0315
		0326
Staff DNCO.....	TC 1110	451-0411
	4025	* 6950

HMA-269

COMMANDING OFFICER	4108	455-6606
Executive Officer.....	4108	455-6606
Sergeant Major.....	4108	455-6550
Adjutant.....	4108	455-6550
Administrative Officer.....	4108	* 6269
Administration/S-1.....	4108	* 6269
Aviation Maintenance Officer.....	4108	455-6534
Aviation Safety/NATOPS-J.....	4108	* 6005
Aviation Safety/NATOPS-T.....	4108	* 6005

*Restricted to MCAS Calls

MARINE CORPS AIR STATION

Organization	Bldg	Phone
HMA-269 (Continued)		
Avionics.....	4108	* 6283
Career Planner.....	4108	455-6559
Flight Equipment.....	4108	* 6268
Flight Line.....	4108	* 6232
Ground Support Equipmint.....	4108	* 6268
Legal.....	4108	455-6559
Logistics/S-4.....	4108	455-6788
Maintenance Administration.....	4108	455-6534 * 6880
Maintenance Chief.....	4108	455-6534
Maintenance Control.....	4108	* 6259
Material.....	4108	455-6534
Metal Shop.....	4108	* 6283
Operations Officer.....	4108	* 6461
Operations/S-3.....	4108	455-6541
Ordnance.....	4108	* 6902
Quality Assurance.....	4108	455-6546
Ready Room.....	4108	455-6546 6034
Tool Room.....	4108	* 6236
Training Office.....	4108	* 6461
Duty NCO.....	4108	455-6959
Duty Officer.....	4108	455-6563

HML-167

COMMANDING OFFICER.....	4108	455-6555
Executive Officer.....	4108	455-6555 * 6016
Operations Officer.....	4108	455-6571
Aircraft Maintenance Officer.....	4108	455-6654 * 6474
Logistics/Safety/Embark/NATOPS.....	4108	455-6591 455-6793
S-1 Officer/Adjutant.....	4108	455-6555
Training Officer.....	4108	* 6037
Legal Officer.....	4108	* 6984
Sergeant Major.....	4108	* 6024
Maintenance Chief.....	4108	455-6654 * 6474
Schedule Officer.....	4108	* 6935
Career Planner.....	4108	* 6984
S-2 Officer.....	4108	* 6204
S-1.....	4108	455-6572
Flight Line.....	4108	* 6225
Quality Assurance.....	4108	455-6654
Maint. Control/Admin.....	4108	455-6560 * 6471
Avionics.....	4108	* 6937
Metal Shop/Corrosion Control.....	4108	* 6418
Weapons & Tactics Instructors.....	4108	455-6786 * 6998
Ready Room.....	4108	455-6873
Duty NCO.....	4025	* 6251

VMO-1

COMMANDING OFFICER.....	4100	455-6382
Executive Officer.....	4100	455-6381
Sergeant Major.....	4100	455-6759
Adjutant.....	4100	* 6095
Administration Officer.....	4100	455-6846
Administration Chief/S-I.....	4100	* 6470
Career Planner.....	4100	* 6296
Education.....	4100	* 6296
Expeditor.....	4100	455-6751

Organization	Bldg	Phone
Flight Line.....	4100	455-6751
Intelligence/S-2.....	4100	* 6010
Logistics/S-4.....	4100	455-6870
Maintenance Administration.....	4100	455-6751 * 6069
Maintenance Control.....	4100	455-6751 * 6266
Material.....	4100	455-6870
NATOPS.....	4100	* 6089
Operations Officer.....	4100	* 6019
Operations/S-3.....	4100	455-6758 * 6084
Ordnance.....	4100	* 6477
Ready Room.....	4100	455-6655
Training.....	4100	* 6478 * 6084
Duty NCO.....	4025	* 6950
Duty Officer.....	4100	455-6655 455-6758

END MAG-29

MATCS-28

COMMANDING OFFICER.....	G-1	451-0202
Executive Officer.....	G-1	451-0202
1st Sergeant.....	G-1	451-0380
Admin Officer.....	G-1	451-0714
Operations Officer.....	G-1	451-0294
Embarkation.....	G-1	451-0771
Maintenance Officer.....	G-1	451-0413
Maintenance Chief.....	G-1	451-0234
Services Officer.....	G-1	451-0771
Fiscal Officer.....	G-1	451-0771
Supply Officer.....	G-1	451-0771
Supply Chief.....	G-1	451-0771
Career Planner.....	G-1	451-0345
Auxiliary Section.....	G-1	451-0767
Duty NCO.....	AS214	* 6934
Duty Officer/NCO.....	G-1	451-0202

MATCS-28 RADAR SITE

Officer in Charge.....	862	455-6156
NCOIC.....	862	455-6157
GCA Watch Chief.....	862	455-6653
GCA Watch Site.....	862	455-6653
Maintenance Officer.....	862	455-6157
Radio.....	518	* 6441

MWSG-27 DETACHMENT "A"

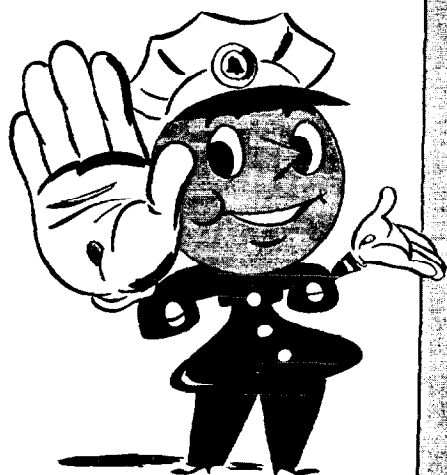
OFFICER IN CHARGE.....	217	455-6590
Executive Officer.....	217	455-6590
Sergeant Major.....	217	455-6590
Administrative Officer.....	217	455-6595
Administrative Chief.....	217	* 6987
Career Planner.....	217	* 6994
Education NCO.....	217	* 6989
Engineer Operations.....	506	455-6716
Engineer Divisions Ops.....	3515	455-6722
EOD.....	4108	455-6536
Heavy Equipment Dispatcher.....	3504	* 6977
Heavy Equipment NCOIC.....	3504	455-6536
Maintenance Officer.....	114	* 6079
Motor Pool Refueler.....	117	* 6241
Motor Transport Officer.....	112	455-6504
Motor Transport Chief.....	112	* 6201

MARINE CORPS AIR STATION

Organization	Bldg	Phone
MT Maintenance Control & Supply.....	112	455-6348
Operations.....	217	455-6603
		455-6665
Operations Chief.....	TC 864	451-0456
Refueler Dispatcher.....	117	455-6833
Supply.....	217	* 6208
		455-6530
Supply/Service Officer.....	217	455-6575
		455-6589
Training.....	217	* 6989
Legal.....	217	* 6985
Utilities/Carpenter Shop.....	3515	* 6465
Warehouse.....	TC 761	451-0769
Duty NCO.....	214	* 6934
Duty Officer.....	217	455-6590

Organization	Bldg.	Phone
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**When you start to
make a call...**



STOP.
BE SURE OF
YOUR NUMBER.

PERSONNEL SUPPORT ACTIVITY (NAVY)

Organization	Bldg.	Phone
Officer-in-Charge	H-1	4528
Asst Officer-in-Charge.....	H-1	4302
Enlisted Records.....	H-1	4348
Officer Records.....	H-1	4334
FMSS Branch Office.....	M-105	6202

Organization	Bldg.	Phone
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NAVAL REGIONAL DENTAL CENTER

Organization	Bldg.	Phone
COMMANDING OFFICER	15	2208
Director of Clinical Services.....	15	2208
Director of Administrative Services.....	15	1658
Master CPO of the Command.....	15	2208
Appointments/Cancellations/Information		
Camp Geiger Annex.....	G 770	0740
Camp Johnson Annex.....	M 128	6288
Courthouse Bay Annex.....	BB 10	7147
Hadnot Point Annex/Duty.....	15	1658
MCAS(H) New River Branch Clinic.....	302	455-6515
		455-6516
		455-6893
Financial and Material Mgt. Dept.		
Fiscal Officer.....	65	5357
Supply Services.....	65	5314
Operating Management Department.....	65	3555
Preventive Dentistry Unit.....	65	3264

Organization	Bldg.	Phone
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**Do not try to repair or move
your telephone yourself, call
EXT: 1114**

NAVAL REGIONAL MEDICAL CENTER

Organization	Bldg.	Phone	Organization	Bldg.	Phone
COMMANDING OFFICER		4310	Ambulance Dispatcher	15	3211
Secretary		4310	Health Record Office	15	3435
Director Clinical Services		4320	Information Desk/MAA	15	3141
Secretary		4320	Industrial Nurse	15	2181
Director Administrative Services		4350	Laboratory	15	1555
Secretary		4479	Pharmacy	15	1097
Master Chief Petty Officer of the Command		4496	Sick Call	15	1053
			x-Ray	15	1540
CHIEFS OF ADMINISTRATIVE SERVICES			Camp Geiger Branch Clinic	G-770	0105
Data Processing		4436	Camp Geiger Clinic Supervisor	G-770	0322
Disbursing Officer		4363	Ambulance	G-770	0136
Fiscal & Supply Officer		4339	Dependents Clinic	G-770	0595
Food Management		4314	Military Sick Call	G 770	0371
Operating Management		4318	Camp Johnson Branch Clinic	M-128	6175
Patient Affairs		4327	Check-in/Appointments	M-128	6154
Personnel		4334	Laboratory	M-128	6238
Public Works		4322	Medical Officer	M-128	6104
CHIEFS OF PROFESSIONAL SERVICES			Correctional Facility Clinic	1041	1834
ALCOHOLISM REHABILITATION		4328	Courthouse Bay Branch Clinic	BB-10	7338
ANESTHESIOLOGY		4583			7206
DERMATOLOGY		4471			7461
DENTAL & ORAL SURGERY		4456			7365
EYE, EAR, NOSE & THROAT		4543	Rifle Range Branch Clinic	RR-11	7316
LABORATORY		4459	Onslow Beach Branch Clinic	BA 114	7273
MEDICAL		4316	MCAS(H), NEW RIVER, Branch Clinic		
NURSING		4321	Officer in Charge	AS-302	455-6513
OBSTETRICS AND GYNECOLOGY		4501	Ambulance	AS-302	455-6666
OCCUPATIONAL AND PREVENTIVE MEDICINE ..		2707	Health Records	AS-302	455-6511
ORTHOPEDECS		4373			455-6500
OUTPATIENTS (DEPENDENTS)		4313	Information	AS-302	455-6500
PHARMACY		4464	Physical Exams	AS-302	455-6514
PSYCHIATRY		4444	Physical Examination Center	36	3236
RADIOLOGY		4469			3954
SURGERY		4323	Audiology	36	2320
UROLOGY		4401	Podiatry Clinic	15	2167
ADMINISTRATIVE WATCH OFFICER		4350	Psychology Clinic	15	3435
ADMISSION UNIT		4530	CARDIOLOGY OFFICE		4688
ALCOHOLISM REHABILITATION UNIT		4328	CENTRAL FILES		4534
APPOINTMENT DESK		4505	CENTRAL SUPPLY		4587
		4611	CHAPLAIN		
AMBULATORY CARE SERVICE			Catholic		4365
Administrative Assistant		4407	Protestant		4391
Secretary		4407	CHILDREN'S WAITING ROOM		4682
Administrative Office		4505	CHIEF MASTER AT ARMS		4574
Central Appointments		4611	CIVILIAN PERSONNEL		4495
Outpatient Records		4557			4376
BAG ROOM		4593			
BARBER SHOP		4532			
BLOOD BANK		4422			
BRANCH CLINICS					
Chief of Branch Clinics	15	5618			
Deputy Chief of Branch Clinics	15	5540			
Administrative Assistant	15	5540			
Administrative Office	15	5182			
Nursing Coordinator	15	5182			
Supply	15	3270			

NAVAL REGIONAL MEDICAL CENTER

Organization	Bldg	Phone
CLINCS		
Dental		4456 4415
Dependents (Outpatient)		
Central Appointment Desk		4505 4611 4557
Dermatology		4471
Eye, Ear, Nose & Throat		
Appointments		4472
Ear, Nose, Throat		4458
Eye		4543 4375
Duty Room		4440
Internal Medicine		4316 4317
Neuropsychiatry		4444
Orthopedic		4373
Ob-Gyn		4501 4503 4502
Pediatrics		4380 4306 4411
Primary Care Clinic		4653
Surgical		4405 4596
Tumor Board		4323
Urology		4401
COASTAL CAROLINA COMMUNITY COLLEGE		4378
COLLECTION AGENT		4537
COMMAND SUPPORT LIASION		
Officer		4333
Admin		4326 4312
Career Counselor/Admin Asst.		4331
COMPLAINT LINE		4407
CORONARY CARE UNIT		4341
CYSTOLOGY		4538
DIET CHANGE LINE		4540
DINING ROOM - OFFICERS		4637
DISABILITY EVALUATION SYSTEM		4448 4593

Organization	Bldg.	Phone
DISBURSING		
Deputy Disbursing Officer		4478 4363
MCB Navy Accounts		4363 4478 4478
2nd Mar Div Navy Accounts		4363
2nd FSSG, MCASH) Navy Accounts		3155 3166
DUTY PARTY DESK		4593
EDUCATION OFFICE		
Military Training Branch		4521
Southern Illinois University	H 1	4634 4521 5575
EMERGENCY ROOM		4335 4324
ENLISTED CLUB		4387
FIRST CITIZENS BANK		5969
FISCAL AND SUPPLY SERVICE		
Chief Fiscal & Supply Service		4339
Supply Officer		4308
Civilian Payroll Section		4535
Equipment Section		4691 4339
Fiscal Accounting Section		4337
Imprest Fund Cashier's Office		4493
Purchasing Section		4308 4367 4374
Issue Section		4561
Stock Control		4561 4490
Shipping & Receiving		4561
Supervisory Budget Analyst		4664
FOOD MANAGEMENT SERVICE		
Chief of Food Management		4314 4466
Dining Room - Officers		4637
FORMS CONTROL		4574 4389
GARAGE		
Dispatcher		4562
Repairs		4575
HEALTH CARE ACTION LINE		4357
HEART STATION		4565
HOSPITAL POINT		4523
INFECTIOUS DISEASE CONTROL		4325 4429
INDUSTRIAL HEALTH SERVICE		
Industrial Hygiene Officer		4325
Safety Manager		4603

NAVAL REGIONAL MEDICAL CENTER

Organization	Bldg	Phone
INFORMATION DESK MAIN HOSPITAL		4300
		4475
		4578
INHALATION THERAPY		4688
LABORATORY		
Chief Laboratory Services		4459
Admin Chief.....		4459
Bacteriology.....		4566
Blood Bank.....		4422
Chemistry.....		4566
Cystology.....		4459
		4566
Hematology.....		4567
Histology.....		4567
Morgue.....		4662
Pathology.....		4305
Serology.....		4422
Urinalysis.....		4567
LAUNDRY		4628
LIBRARY		
General.....		4569
Medical.....		4570
MAIL ROOM		4361
MARINE CORPS EXCHANGE		4590
MARINE CORPS LIAISON NCO		4592
MEDICAL REPAIR SHOP		4304
MEDICAL SERVICE		
Chief of Medicine		4316
Secretary.....		4317
Medical Social Worker.....		4604
		4606
MORGUE		4662
MILITARY CONSTRUCTION LIAISON OFFICER		4418
		4656
NURSING SERVICE		
Chief of Nursing Service		4321
Assistant Chief of Nursing.....		4641
Nursing Detail.....		4632
Quality Assurance Coordinator.....		4621
OB-GYN SERVICE		
Labor & Delivery.....		4473
		4548
Labor Suite, CSR.....		4545
Newborn Nursery.....		4549
Nursery, ICU.....		4623
Ward 2-A (Post Partum).....		4438
Ward 7-A OB-GYN Clinic.....		4501
		4502
		4503
OFFICER OF THE DAY		4300

Organization	Bldg	Phone
OPERATING ROOM		4585
Doctors Lounge.....		4586
Duty Corpsman.....		4585
Anesthesia Dept.....		4583
Recovery Room.....		4491
OPERATING MANAGEMENT SERVICE		
Chief of Operating Management Service		4318
Assistant Chief Operating Management Service.....		4574
Administrative Assistant.....		4318
Chief Master at Arms.....		4574
Assistant Chief Master at Arms.....		4574
Patient Master at Arms.....		4390
Housekeeping.....		4389
Forms Control.....		4389
Traffic and Parking Section.....		4390
Laundry.....		4628
Mail Room.....		4361
Information Desk.....		4300
Security and Legal Assistance.....		4318
ORTHOPEDIC SERVICE		
Chief Orthopedic Service		4373
Secretary.....		4474
PATIENT SERVICES		
Chief of Patient Services		4327
Command Master Chief.....		4496
Admission Unit.....		4530
Bag Room.....		4593
CHAMPUS Counselor/Depend Serv Admin.....		4313
Decedent Affairs Desk.....		4327
Disability Evaluation.....		4448
		4593
Duty Party Desk.....		4593
HR Custodian.....		4593
Health Records.....		4593
Investigations - Claims.....		4593
Marine Corps Liaison NCO.....		4592
Medical Air Evacuation Section.....		4417
Medical Disposition Desk.....		4448
Statistical Coding.....		4593
Transcribing Supervisor.....		4455
PERSONNEL SVC (See PERS SPT ACTIVITY (NAVY))		
PHARMACY SERVICE		
Chief of Pharmacy Service		4464
Ward Issue Room.....		4346
IV Additive Room.....		4340
Pharmacy.....		4464
PHOTO LAB		4336
PHYSICAL THERAPY		4589
Appointment Desk.....		4461
Physiatrist.....		4381
POST OFFICE (U.S.)		4591
PREVENTIVE MEDICINE		
Chief of Service.....		2707
Admin Section.....	65	5707
Leading CPO.....	65	1930
Sexual Transmitted Disease Clinic (STD).....	65	5119
Industrial Hygiene.....	65	2767

NAVAL REGIONAL MEDICAL CENTER

Organization	Bldg.	Phone
PSYCHIATRY SERVICE		
Chief Psychiatry Service.....		4444 4342
PUBLIC WORKS SERVICE		
Public Works Officer.....		4322 4624
Garage.....		4533
Maintenance Supervisor.....		4522
Maintenance Control.....		4666
Safety.....		4322
Sanitation.....		4322
Work Reception Desk.....		4666
QUARTERS		
Unaccompanied Personnel Housing		
Officer.....		4412
Enlisted		
Male.....		4484 4618
Female.....		4648
Hospital Corps Quarters #2.....		4446
Lounge (First Floor).....		4311
Master at Arms.....		4484

Organization	Bldg	Phone
RED CROSS		4332 4492
HOURS—MON.—FRI. 8—4:30		
After Duty Hours.....		347-5191
SAFETY MANAGER		4603
SECURITY OFFICER		4574
SPECIAL SERVICES		4497
TRAFFIC & PARKING		4390
TRANSPORTATION		4562
TUMOR BOARD SECRETARY		4323
BASE VETERINARIAN		
Veterinary Food Inspection Service.....	1300	5915 1846
Veterinary Animal Clinic For Appointments (Monday Only).....	TT 2451	1009
X-RAY		
Chief Radiology Service		4469
Appointment Check-in Desk.....		4597
Cysto Room.....		4538

NUMBERS FREQUENTLY CALLED

NO.	NAME	ADDRESS	TELEPHONE NUMBER
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TIM CONVERSION

TOKYO	PREVIOUS DAY					
	HAWAII	PST	NST	CST	RST	GMT
0100	0600	0800	0900	1000	1100	1500
0200	0700	0900	1000	1100	1200	1600
0300	0800	1000	1100	1200	1300	1700
0400	0900	1100	1200	1300	1400	1800
0500	1000	1200	1300	1400	1500	1900
0600	1100	1300	1400	1500	1600	2000
0700	1200	1400	1500	1600	1700	2100
0800	1300	1500	1600	1700	1800	2200
0900	1400	1600	1700	1800	1900	2300
1000	1500	1700	1800	1900	2000	0100
1100	1600	1800	1900	2000	2100	0200
1200	1700	1900	2000	2100	2200	0300
1300	1800	2000	2100	2200	2300	0400
1400	1900	2100	2200	2300	2400	0500
1500	2000	2200	2300	2400	2500	0600
1600	2100	2300	2400	0100	0200	0700
1700	2200	2400	0100	0200	0300	0800
1800	2300	0100	0200	0300	0400	0900
1900	2400	0200	0300	0400	0500	1000
2000	2500	0300	0400	0500	0600	1100
2100	0000	0400	0500	0600	0700	1200
2200	0100	0500	0600	0700	0800	1300
2300	0200	0600	0700	0800	0900	1400
2400	0300	0700	0800	0900	1000	1500
2500	0400	0800	0900	1000	1100	1600

THIS MESSAGE IS NOT SECURE

BO P11102.1J

STANDING OPERATING PROCEDURE FOR TRAINING FACILITIES AND SERVICES



**MARINE CORPS BASE,
CAMP LEJEUNE, N.C.**

UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, North Carolina 28542

BO P11102.1J Ch 2
TFAC/GGG/ves
01 JUN 1981

BASE ORDER P11102.1J Ch 2

From: Commanding General
To: Distribution List

Subj: Standing Operating Procedure for Training Facilities and Services

Encl: (1) New page inserts to BO P11102.1J

1. Purpose. To transmit new page inserts to the subject Manual.
2. Action. Between pages B-60 and B-61, insert new pages B-60a, B-60b and B-60c contained in enclosure (1) hereto.
3. Summary of Change. This Change incorporates regulations for Onslow Beach North Tower Machine Gun Range.
4. Filing Instructions. This change will be filed immediately following page 5 of the basic Manual.
5. Certification. Reviewed and approved this date.


J. R. FRIDELL
Chief of Staff

DISTRIBUTION: A-1
CMC (MTMT)
CG MCDEC (4)
COMPHIBLANT (10)
CG FMFLANT (10)
CG FORT BRAGG, NC (5)
CG MCB CAMPEN (5)
CG 2d MAW (50)
CG MCAS CHRPT (10)
CG LFTC Little Creek, NorVa (10)
COMFIVE (3)
COMSIX (3)
MCAS (H) New River (10)
MCAS Beaufort (3)
Seymour Johnson AFB (3)
USAJFKCENNA, Ft Bragg, NC (5)
CO RESLNU MCB CLNC (10)
Area Cdr, Camp Geiger Area (10)
DISTENGR USA Corps of Engrs, Wilmington, NC
OIC USCG STA, Swansboro, NC
OIC USCG STA, Wilmington, NC
OIC, USCG STA, Morehead City, NC
COMNAVAIRLANT (Code 325)
TRNG FAC O (150)

1. RANGE. Onslow Beach North Tower Machine Gun Range.
2. LOCATION. GS 9828
3. DESCRIPTION
 - a. Assault Amphibian Vehicle Range.
 - b. Floating target platforms seaward within the N-1 Impact Area.
4. AUTHORIZED FIRING
 - a. Weapons - M-85 caliber machine gun and M-60 series 7.62 MM machine gun mounted on the LVTP-7 Assault Amphibian Vehicle.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinate 935287
Azimuth 105°
 - b. Left Flank Coordinate 939290
Azimuth 80°
6. COMMUNICATIONS
 - a. Dial telephone available on Onslow Beach, North Tower (7441)
 - b. Internal radio communications will be established and maintained between the officer in charge of firing, safety boat and the firing line prior to and during firing.
 - c. The officer in charge of firing will maintain wire communications with Base Range Control (BLACKBURN) during all firing.
 - d. See Section IV.
 - e. Dual communications required.
 - f. Radio frequency 49.75 MHz for tower, and guard safety boat. Radio frequency 38.60 MHz for Range Control (BLACKBURN).
 - g. Three radios required.
7. KNOWN INTERFERENCE
 - a. Waterborne traffic seaward approaches within the surface danger area (N-1 Impact Area).
 - b. Transient aircraft and military aircraft engaged in close air support missions on Brown's Island.
8. SAFETY EQUIPMENT
 - a. Scarlet Streamers
 - b. Binoculars
9. RANGE PERSONNEL
 - a. Officer in Charge of firing.

b. Range Safety Officer. This officer will be in addition to the Officer in Charge of firing.

c. Position Safety Officer when required.

d. One range guard.

e. Safety boat operator with radio operator will be provided by Training Facilities Branch.

10. MEDICAL. Corpsman with first aid equipment and military vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. The following safety requirements are to be accomplished by the Officer in Charge of firing.

(1) Receive briefing on conditions of scheduled events being conducted on G-5, G-5A, G-7 and BT-3 (Brown's Island) ranges that may effect range utilization.

(2) Coordinate, as advised by Range Control Duty Officer, with units utilizing N-1 Impact Area to ensure safe conduct of placement of buoys and target platform.

(3) Coordination and planning will be accomplished to avoid interruptions and loss of valuable firing time.

b. Impacements of buoys and target platforms.

(1) The left and right boundaries are to be marked with red fabricated buoys extending from the beach seaward to at least 200 meters and securely anchored into place.

(2) Target platforms (color optional) are to be anchored within the boundaries of the fan on an azimuth 100° right boundary to 85° left boundary.

(3) Range Control Duty Officer will be advised on the completion of implacements.

(4) Personnel and vehicles are to remain south of grid line 29 and forward of the dunes (beach area) at all times.

(5) Foot or vehicle traffic on the sand dunes is strictly prohibited.

c. Prior to commencing fire, until termination, fly scarlet streamer during daylight hours:

(1) Onslow Beach, North Tower 933287

(2) Flag Pole located at Grid 926283

d. Maintain Range Guard on North Tower throughout the exercise.

e. Range guard will be equipped with binoculars and radio. He will be instructed that his section of observation is 100M to 190M and give prompt notification to the Officer in Charge of firing before a vessel or aircraft penetrates the danger area.

f. Range guard will be directed to raise and lower the flag prior to commencing and termination of firing.

g. The using unit will ensure that an aerial search is made of Brown's Inlet, Brown's Island and areas within the danger area to ensure that the areas are cleared of personnel and crafts prior to firing. Training Facilities Branch will schedule an aerial sweep of the area for the using unit.

h. Training Facilities Branch will provide a guard boat to be positioned in Brown's Inlet (GC 955305) to prevent any crafts from entering the danger areas.

i. Other units are authorized to use G-7 range during the same scheduled period of firing. Guard boats will be positioned in the waterway at Bear Creek and Freeman Creek to control boat traffic.

j. When air operations are being conducted on BT-3 Bombing Range, North Tower Machine Gun Range will not be authorized to fire. All personnel and tracked vehicles will be required to move out of the buffer zone to GC 925284 until the completion of air operations and cleared by Range Control to move back and resume firing.

k. Firing will cease if communications are not maintained or range flags are lowered for any reasons.

l. Firing of weapons at sea mammals or sea birds is strictly prohibited.

m. Ensure strict compliance with BO 11015.7 dated 14 June 1979.



UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, North Carolina 28542

BO P11102.1J Ch 4
TFAC/EMA/ves
22 Feb 1982

BASE ORDER P11102.1J Ch 4

From: Commanding General
To: Distribution List

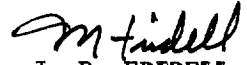
Subj: Standing Operating Procedure for Training Facilities and Services

1. Purpose. To add pages and direct pen changes to the basic Order.
2. Action
 - a. Remove and destroy pages 2-13 and 2-14 and replace with new pages 2-13 and 2-14 Ch 4.
 - b. Add pages 2-15 Ch 4 and 2-16 Ch 4.
 - c. On page 4-16, delete present subparagraph 421.7 b. (1) and substitute the following:

"(1) ALZ's are used for administrative support only. Tactical exercises involving the use of helicopters for personnel or cargo movement will not be conducted in ALZ 4".
 - d. On page D-2 under 5a., (Location) after 4, W.P.T. HILL Parade Field, add: "(RESTRICTED)".
 - e. On page D-2, delete subparagraph 5 (2), and renumber remaining subparagraph (3) as (2).
 - f. In Appendix A under Administrative Landing Zone (ALZ), delete the last sentence.
3. Summary of Change. Changes made throughout the basic Order are to clarify wording/instructions.
4. Change Notation. Significant changes contained in the revised pages are denoted by an arrow (➤➤➤) symbol.
5. Filing Instructions. This change will be filed immediately following the signature page of the basic Order.

BO P11102.1J Ch 4
22 Feb 1982

6. Certification. Reviewed and approved this date.


J. R. FRIDE LL
Chief of Staff

DISTRIBUTION: A-1
CG FORT BRAGG, NC (5)
CG MCB CAMPEN (5)
CG 2d MARDIV (300)
CG 2d FSSG (Rein) (100)
CG 2d MAW (50)
CG MCAS CHRPT (10)
CG LFTC Little Creek, NorVa (10)
COMFIVE (3)
COMSIX (3)
MCAS (H) New River (10)
MCAS Beaufort (3)
Seymour Johnson AFB (3)
MAG-26 (35)
MAG-29 (35)
USAJFKCENNA, Ft. Bragg, NC (5)
CO RSU MCB CLNC (100)
Area CMDR, Camp Geiger Area (100)
DISTENGR USA Corps of Engrs, Wilmington, N.C.
OIC USCG STA, Swansboro, NC
OIC USCG STA, Wilmington, NC
OIC USCG STA, Morehead City, NC
COMNAVAIRLANT (Code 325)
TRNG FAC O (500)
CMC (MIMT)
CG MCDEC (4)
COMPHBLANT (10)
CG FMFLANT (10)

1. HAZARDOUS AREAS

a. High Explosive Impact Areas

(1) G-10, K-2 and N-1 impact areas may be entered only when accompanied by explosive ordnance disposal personnel and with the permission of the Base Range Control Officer. No training will be authorized within those areas except for EOD Personnel.

(2) No training will be scheduled on the down range portions of ranges F-6, G-8, K-211, K-323, K-325, G-9, K-301, K-303, K-305 and K-405, with the exception of EOD Personnel. Down range movement is permitted only if accompanied by explosive ordnance disposal personnel.

b. Live Minefield Site: See reference (c). (Grid coordinates 936310 to 939306 to 943309 to 943313)

c. Chemical Dump. See reference (d). (Grid Square 7728)

2. EXCLUSION AREAS AND LIMITED AREAS. Building SH-8 and Magazines SHE-12 and SHE-13 are designated as Exclusion Areas and the fenced in areas surrounding them are designated as Limited Areas.

3. RESTRICTED CATEGORY TRAINING AREAS. Maneuver areas CA, CB, DA, that portion of DC south of the Main Service Road and west of gridline 87, and the FAD area in grid squares 8742 and 8741 are in a restricted category and are not available for training.

4. ADMINISTRATIVE AREAS. Training normally is not permitted in administrative areas, except in specific training facilities located within the area, such as D-9, D-29, D-30 small arms ranges and the area five training pool.

5. ONSLow BEACH. The beach area is the primary amphibious training area at Camp Lejeune. When not in use for training, the central portion, designated Onslow Beach, is open for recreational purposes. For safety purposes, the use of Onslow Beach for training requires specific authorization at least two weeks in advance of training. Use of blank ammunition and explosives may be authorized in accordance with the procedures set forth in paragraph 206.8.

6. FOOD PLOTS. Food plots are located within maneuver areas and are prominently marked. Units will remain clear of all food plots.

208. MISCELLANEOUS1. ADMINISTRATIVE LANDING ZONES

➤ a. SCHEDULING. ALZ's are not formally scheduled by the Training Facilities Office. Advance notification of the intended use of an ALZ for other than routine administrative operations should be made to the appropriate area commander.

➤ b. SPECIAL INSTRUCTIONS FOR ALZ 4.

(1) ALZ 4 is off limits to all aircraft during the hours of 0745 to 0815 daily.

(2) ALZ 4 is restricted to VIP and administrative purposes only.

2. RECREATIONAL USE OF TRAINING FACILITIES

a. Training pools, Area #2 and Montford Point, are available for recreational use of units and dependents, subject to training requirements. See Appendix D.

b. Requests for recreational firing will be submitted as indicated via the Assistant Chief of Staff, Training:

(1) B-12 (Pistol and .22 Rifle Range) - Base TFO

(2) D-6 (Cal. .22 Range) - Base TFO

(3) D-9 (Skeet Range) - Base Special Services Officer

(4) F-11 (Pistol Range) - Base TFO

(5) Base Rifle Range - CO, Rifle Range Detachment

3. REQUESTS FOR CIVILIAN AND MILITARY DEPENDENTS TO OBSERVE TRAINING ABOARD CAMP LEJEUNE. Requests for authorization to permit civilian personnel and military dependents to observe training aboard Camp Lejeune will be submitted, via chain of command, to CG, MCB (Attn: Assistant Chief of Staff, Training) stating:

a. Type of training (ordnance to be fired).

b. Date and time.

c. Training area.

4. JARRETT'S POINT TRAINING AREA

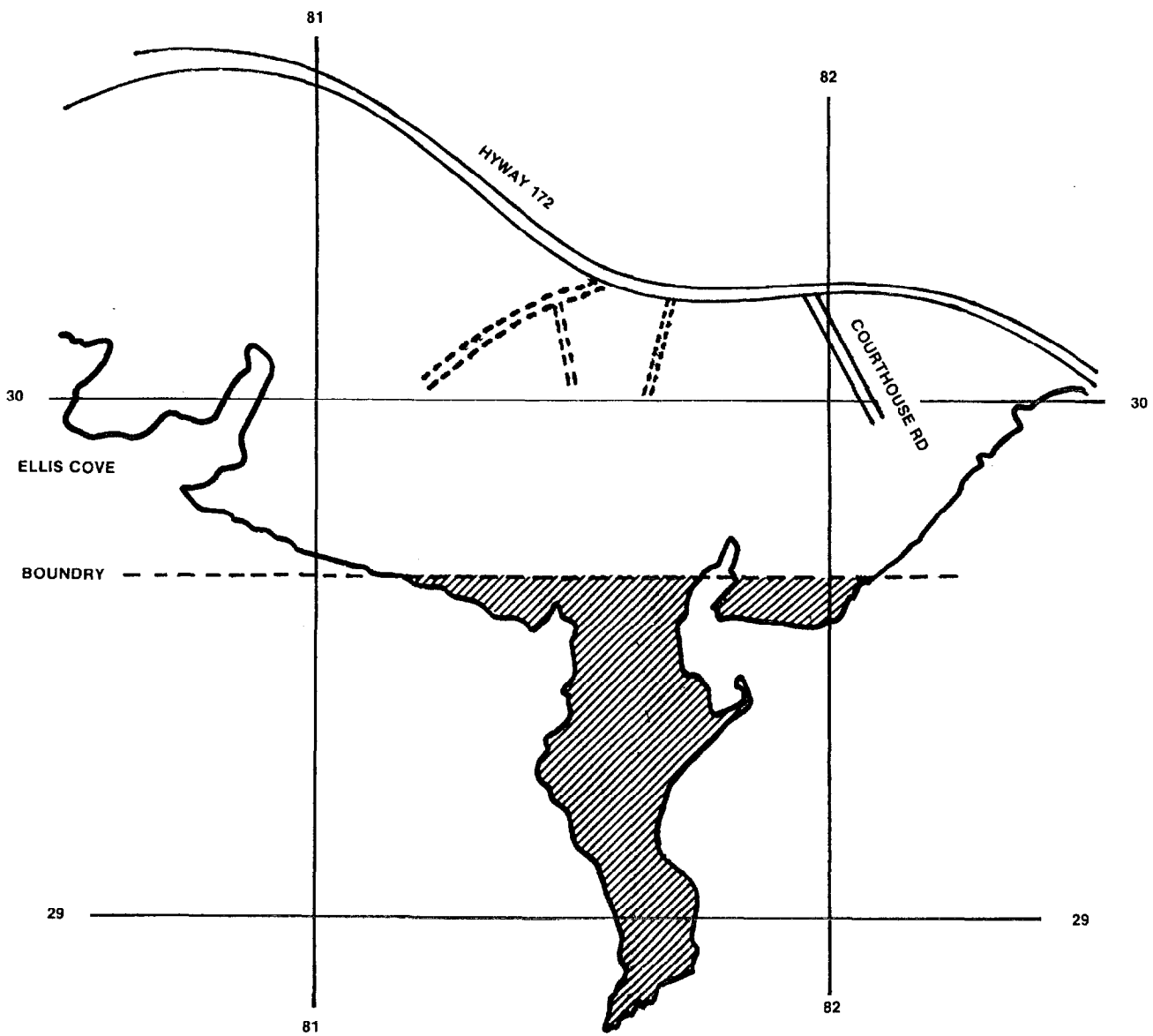
a. Jarrett's Point, located in the JC maneuver area (GS 8129 & 8128), is a training area used predominately by the 2d Assault Amphibian Battalion for driver training, MCES and MCAS (H) New River Units for external lift training.

b. Portions of this training area have been designated as archaeological sites. Until these sites have been excavated by authorized archaeologists, training at Jarrett's Point will be restricted as follows:

(1) No vehicular or ground troop training will be conducted south of a line from GC 810296 to 820296. This line is marked by signs indicating the restricted area (See map on page 2-16).

(2) Helicopter operations, in conjunction with HST units conducting external rigging training, may be conducted in the designated area south of the restriction line. Ingress/egress to this area is restricted to foot and wheeled vehicular traffic on existing trails.

(3) Road grading and any other engineer training which will disturb the soil, is prohibited except by written consent of the Base Maintenance Officer (AC/S Facilities).



RESTRICTED AREA

APPROX. SCALE 1" = 250 METERS
 BOUNDRY LINE IS FROM
 GRID 810296 TO 820296



UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

BO P11102.1J Ch 3
TFAC/EMA/ves
4 FEB 1982

BASE ORDER P11102.1J Ch 3

From: Commanding General
To: Distribution List

Subj: Standing Operating Procedure for Training Facilities and Services

Encl: (1) New page inserts to BO P11102.1J

1. Purpose. To direct pen changes and transmit new page inserts to the basic Order.

2. Action

a. Remove and destroy pages 4-25, 4-26, and replace with new pages 4-25, 4-26 attached as enclosure (1) hereto.

b. Remove and destroy pages B-60a, B-60b and B-60c, and replace with new pages B-60a, B-60b, B-60c and Tab (A) to B-60c.

c. On page B-22 under 3.b. add "c. Two artillery and one machine gun simulators."

d. On page B-24, under 8. RANGE PERSONNEL add, "One range operator is provided by Training Facilities Branch."

e. On page B-32 under 4.b. add "c. The firing of machine guns at the pop up targets or berms is prohibited."

f. On page B-35 under 3.b. delete the words "flashing yellow" and insert the words "a white light".

g. On page B-35, under 9.b. insert "c. The range operator will be utilized only when the pop up targets are used."

h. Delete pages B-37 thru B-40.

i. On page B-69 under 11.b. delete the words "implacement of demolitions" and insert, "demolitions and emplacement of same".

j. On page B-77 under 3.a. delete, "Combat Field Firing", and insert, "Night and Combat Field Firing."

k. On page B-77, under 8. SAFETY EQUIPMENT, after Streamers, add, "will be flown from range pole during daylight firing and red flashing lights during night firing".

1. On page F.1., under 1a., delete the last sentence of sub-paragraph 1a.

3. Summary of Change. Changes made throughout the basic Order are to clarify wording/instructions.

4 FEB 1962

4. Change Notation. Significant changes contained in the revised pages are denoted by an arrow (⇒⇒⇒) symbol.
5. Filing Instructions. This Change will be filed immediately following the signature page of the basic Manual.
6. Certification. Reviewed and approved this date.

J. R. Fridell
J. R. FRIDELL
Chief of Staff

DISTRIBUTION: A-1
CMC (MTMT)
CG MCDEC (4)
COMPHIBLANT (10)
CG FMFLANT (10)
CG FORT BRAGG, NC (5)
CG MCB CAMPEN (5)
CG 2d MARDIV (300)
CG 2d FSSG (Rein) (100)
CG 2d MAW (50)
CG MCAS CHRPT (10)
CG LFTC Little Creek, NorVa (10)
COMFIVE (3)
COMSIX (3)
MCAS (H) New River (10)
MCAS Beaufort (3)
Seymour Johnson AFB (3)
MAG-26 (35)
MAG-29 (35)
USAJFKCENNA, Ft. Bragg, NC (5)
CO RESLNU MCB CLNC (100)
Area CMDR, Camp Geiger Area (100)
DISTENGR USA Corps of Engrs Wilmington NC
OIC USCG STA, Swansboro, NC
OIC USCG STA, Wilmington, NC
OIC USCG STA, Morehead City, NC
COMNAVAIRLANT (Code 325)
TRNG FAC O (500)

d. If one means of communications fails while the training is in progress, but communications through the alternate media remains effective, the training may continue.

e. Should both wire and radio communications to Range Control fail, the exercise will be suspended immediately by the officer in charge of firing. All aircraft will be directed to clear the area until authorized to resume operations.

f. MAG lines are positioned at or within walking distance of each TLZ for maximum assistance to training units in establishing communications with Base Range Control.

g. See paragraph 412 concerning air operations and paragraph 6 of Appendix B regarding live firing in the BT-3 complex (Brown's Island, N-1 Impact Area).

417. MISCELLANEOUS

1. BLANK FIRING AND PYROTECHNICS

a. All maneuver areas and many live fire ranges may be used for non-live firing exercises utilizing blank ammunition and non-injurious pyrotechnics unless otherwise prohibited as an exclusion or hazardous area. Blanks and pyrotechnics will not be buried.

b. Blanks and pyrotechnics, with the exception of red signals, may be used without permission from this Headquarters in all maneuver areas except:

- (1) Areas C, DA and DC
- (2) Sub-areas adjacent to public quarters or trailer parks.
- (3) Near Base Schools.
- (4) Areas specifically designated as exclusion, limited or training areas in a restricted category. See paragraph 204.2.
- (5) Heavily populated areas.

c. Red grenades and pyrotechnics are used as an emergency or danger signalling device and will not be used for training unless specifically authorized by the Assistant Chief of Staff, Training.

2. LIVE FIRE IN NON-DESIGNATED AREAS. Live fire exercises normally must be conducted on designated ranges listed in

Appendix B. In certain instances, permission may be granted to conduct live fire exercises or demonstrations in nondesignated areas. See Section II for scheduling procedures.

3. USE OF NBC AGENTS

a. The use of smoke, flame, CS and standard agent simulants is authorized for training purposes at the discretion of the unit commander and subject to the restrictions contained in these regulations. No other agents may be used.

b. Standard simulants and munition available for training are: (See reference (q)).

- (1) Simulant Chemical Agent PEG 200
- (2) Training Set, Chemical Agent M72A1/M72A2
- (3) Blister Agent Simulant, Molasses Resedium
- (4) Training Ammunition.
- (5) Atomic explosion simulator, DVC 39-1.
- (6) Atomic Simulator locally fabricated set (FM 30-101).
- (7) Artillery Simulator, M110.

c. Specific instructions are as follows:

➤➤➤(1) Classroom instructors will notify the range NCOIC/Assistant NCOIC of the intent to use CS Grenades in the outdoor classroom prior to their use. The wind direction will be checked by the Range NCOIC/Assistant NCOIC before authorization is given for their use.

(2) The same cover and safety limits used during training with high explosive ammunition are required for protection against fragments and ricochets of chemical ammunition.

(3) Chemical agents will be employed only with the advice of a commissioned officer trained in the field behavior of such agents.

➤➤➤(4) Troops will not be exposed to CS until they have been instructed in the use of the Field Protective Mask and have completed a minimum of three masking drills. Field protective masks will be checked for serviceability prior to instruction.

(5) Individuals having a P/3 profile because of respiratory or cardiac conditions will not be exposed to CS until examined by a medical officer who will determine whether or not the individual should be excused.

1. RANGE. Onslow Beach North Tower Machine Gun Range.
2. LOCATION. GS 9328
3. DESCRIPTION
 - a. Assault Amphibian Vehicle Range.
 - b. Floating target platforms seaward within the N-1 Impact Area.
4. AUTHORIZED FIRING
 - a. Weapons - M-85 caliber machine gun and M-60 series 7.62 MM machine gun mounted on the LVTP-7 Assault Amphibian Vehicle.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinate 935287
Azimuth 105°
 - b. Left Flank Coordinate 939290
Azimuth 80°
6. COMMUNICATIONS
 - a. Dial telephone available on Onslow Beach, North Tower (7441).
 - b. Internal radio communications will be established and maintained between the officer in charge of firing, safety boat and the firing line prior to and during firing.
 - c. The officer in charge of firing will maintain wire communications with Base Range Control (BLACKBURN) during all firing.
 - d. See Section IV.
 - e. Dual communications required.
 - f. Radio frequency 49.75 MHz for tower, and guard safety boat. Radio frequency 38.60 MHz for Range Control (BLACKBURN).
 - g. Three radios required.
7. KNOWN INTERFERENCE
 - a. Waterborne traffic seaward approaches within the surface danger area (N-1 Impact Area).
 - b. Transient aircraft and military aircraft engaged in close air support missions on Brown's Island.
8. SAFETY EQUIPMENT
 - a. Scarlet Streamers
 - b. Binoculars
9. RANGE PERSONNEL
 - a. Officer in Charge of firing.

b. Range Safety Officer. This officer will be in addition to the Officer in Charge of firing.

c. Position Safety Officer when required.

d. One range guard.

e. Safety boat operator with radio operator will be provided by Training Facilities Branch.

10. MEDICAL. Corpsman with first aid equipment and military vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. The following safety requirements are to be accomplished by the Officer in Charge of firing.

⇒⇒(1) Receive briefing on conditions of scheduled events being conducted on G-5, G-5A, G-7 and BT-3 (Brown's Island) ranges that may affect range utilization. This range is not to be used when the Intracoastal Waterway has been closed for other ranges and one of the following ranges is available: G-5, G-5A, or G-7. (When other ranges requiring the closing of the Intracoastal Waterway are not being used, the use of this range is not so restricted).

(2) Coordinate, as advised by Range Control Duty Officer, with units utilizing N-1 Impact Area to ensure safe conduct of emplacement of buoys and target platform.

(3) Coordination and planning will be accomplished to avoid interruptions and loss of valuable firing time.

b. Implantations of buoys and target platforms.

(1) The left and right boundaries are to be marked with red fabricated buoys extending from the beach seaward to at least 200 meters and securely anchored into place.

(2) Target platforms (color optional) are to be anchored within the boundaries of the fan on an azimuth 100° right boundary to 85° left boundary.

(3) Range Control Duty Officer will be advised on the completion of implantations.

⇒⇒(4) Personnel and vehicles using this range are restricted to an area between grid line 29 and a point where the access road that goes between the sand dunes to the base of Onslow North Tower bisects the beach.

(5) Foot or vehicle traffic on the sand dunes is strictly prohibited.

⇒⇒(6) The firing line is a 75 meter stretch of beach immediately northeast of Onslow North Tower. The firing line is on the seaward side of the sand dunes running parallel to the high water mark (Tab (a) to B-60c). For safety reasons, no more than three vehicles will be on the firing line at any one time. This line is marked by red engineer stakes.

⇒⇒(7) Access to the firing range is restricted to Ocean Drive and continuing north to the access road that goes between the sand dunes to the base of Onslow North Tower and ends at the water's edge (Tab (a) to B-60c). Another route, available only to the 2d Assault Amphibian Battalion, is to enter the water from the tactical beach area south of Risely Pier and swim to the range site.

c. Prior to commencing fire, until termination, fly scarlet streamer during daylight hours:

(1) Onslow Beach, North Tower 933287

(2) Flag Pole located at Grid 926283

d. Maintain Range Guard on North Tower throughout the exercise.

e. Range guard will be equipped with binoculars and radio. He will be instructed that his section of observation is 10°M to 190°M and give prompt notification to the Officer in Charge of firing before a vessel or aircraft penetrates the danger area.

f. Range guard will be directed to raise and lower the flag prior to commencing and termination of firing.

g. The using unit will ensure that an aerial search is made of Brown's Inlet, Brown's Island and areas within the danger area to ensure that the areas are cleared of personnel and crafts prior to firing. Training Facilities Branch will schedule an aerial sweep of the area for the using unit.

h. Training Facilities Branch will provide a guard boat to be positioned in Brown's Inlet (GC 955305) to prevent any crafts from entering the danger areas.

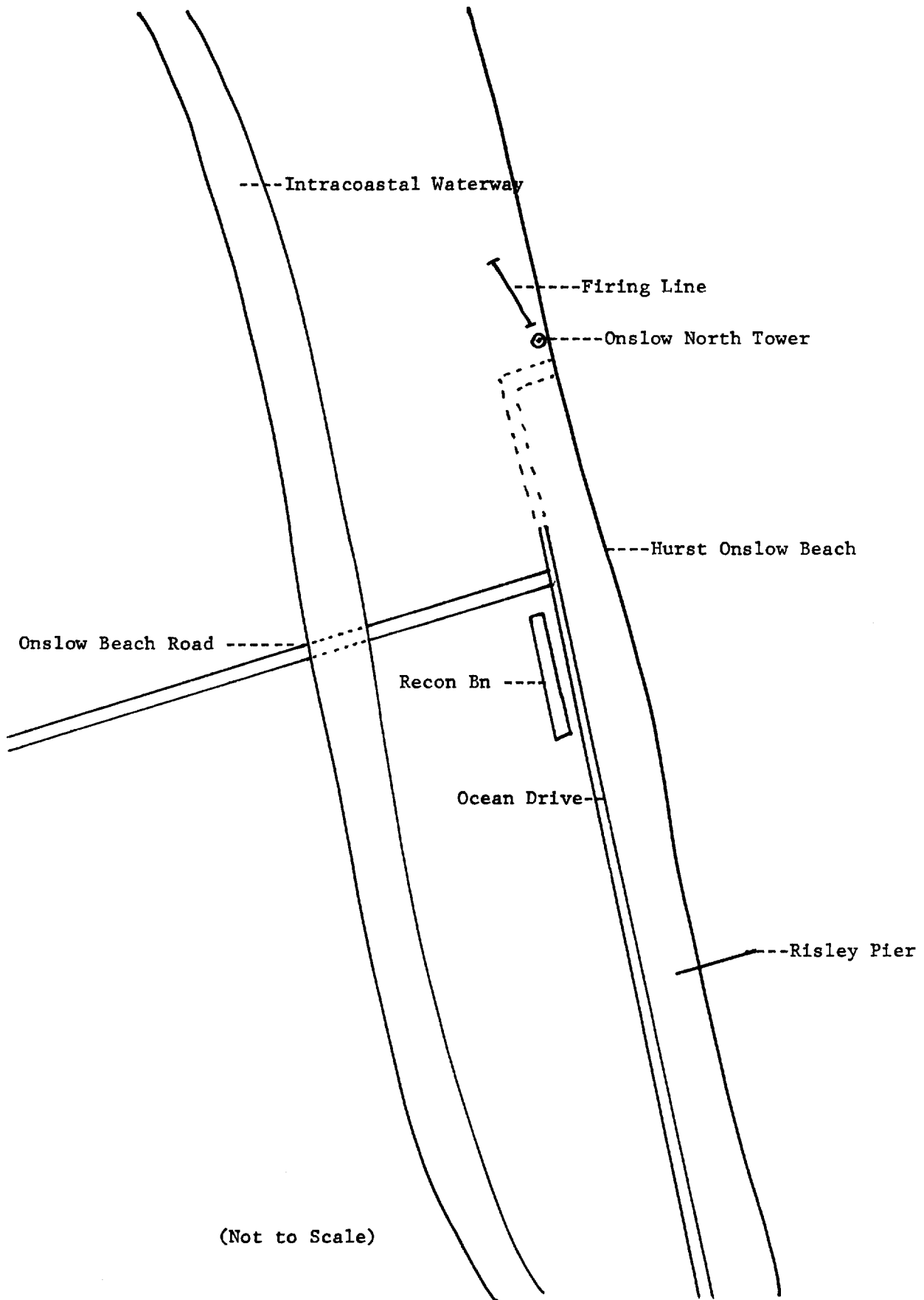
i. Other units are authorized to use G-7 range during the same scheduled period of firing. Guard boats will be positioned in the waterway at Bear Creek and Freeman Creek to control boat traffic.

j. When air operations are being conducted on BT-3 Bombing Range, North Tower Machine Gun Range will not be authorized to fire. All personnel and tracked vehicles will be required to move out of the buffer zone to GC 925284 until the completion of air operations and cleared by Range Control to move back and resume firing.

k. Firing will cease if communications are not maintained or range flags are lowered for any reasons.

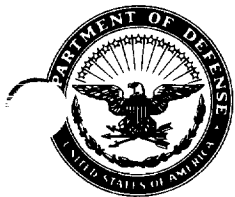
→ l. Firing of weapons at sea mammals, birds, or reptiles, or when these animals are visible down range is strictly prohibited.

m. Ensure strict compliance with BO 11015.7 dated 14 June 1979.



(Not to Scale)

TAB (A) to
B-60c
Ch 3 (4 Feb 1982)



UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
BO P11102.1J
TFAC/HVG/ves
11 Jun 1980

BASE ORDER P11102.1J

From: Commanding General
To: Distribution List

Subj: Standing Operation Procedures for Training Facilities
and Services

Ref: (a) MCO P3570.1
(b) BO P1710.27
(c) BO 8092.1
(d) MCO P5100.20
(e) MCO P11000.7
(f) BO 8027.2
(g) MCO 6700.1
(h) MCO 6200.1
(i) CAMP LEJEUNE SPECIAL MAP, APPROACHES TO NEW RIVER
STOCK NUMBER V-742 SCELEJEUNE, 5th ed, Sept 25,
1976
(j) Map of North Carolina: 1:50,000 Series V-742
(k) Division Air Note 2-79 (NOTAL)
(l) BO 11320.1
(m) MCO 8025.1
(n) BO P8023.3
(o) Federal Code of Regulations-Title 33 (NOTAL)
(p) FM 21-48 (NOTAL)
(q) NAVORDSYSCOM Ltr ORD-048E2/469:ANC 8020 dtd 7Jun74
(r) BO 11000.0
(s) Public Law 93-205, Endangered Species Act of 1973
(NOTAL)
(t) MCO 11015.4
(u) BO 11015.3
(v) BO 11017.1
(w) BO 11015.6
(x) BO 11015.7

Encl: (1) LOCATOR SHEET

Reports Required: List, page iii.

1. Purpose. To promulgate regulations for the assignment, control, safe use and maintenance of training facilities, including live field firing ranges, maneuver areas and field training facilities under the control of the Commanding General, Marine Corps Base, Camp Lejeune, North Carolina, and to provide information and instructions regarding training services available to units training at Camp Lejeune.

2. Cancellation. BO P11102.1H.

3. Action

a. This Order is effective on receipt.

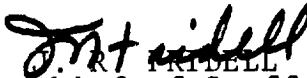
b. A copy of this Order and Section IV with Appendixes A through H, will be published separately in standard size and will serve as the Base Training Facilities Safety Regulations. All officers involved in the utilization of live firing ranges, maneuver areas, helicopter landing/drop zones and air operations will be thoroughly familiar with these safety regulations and each Officer in Charge of Firing or Forward Air Controller will possess a copy of the standard size regulations at all times when such training exercises are in progress.

4. Summary of Revisions. This revision contains a substantial number of changes and should be completely reviewed.

5. Recommendations. Recommendations for the improvement of training facilities and services, including the enhancement of safe usage of facilities, should be submitted through the appropriate chain of command.

6. Applicability. This Order is applicable to all personnel of all services based at or attached to Marine Corps Base, or to those units not under the operational control of the Commanding General, Marine Corps Base, but granted permission to use the air or water space of the training facilities within the geographical limits of this Base.

7. Certification. Reviewed and approved this date.


J. R. TRIBELL
Chief of Staff

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CG 2d MAW (50)
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COMFIVE (3)
COMSIX (3)
MCAS (H) New River (10)
MCAS Beaufort (3)
Seymour Johnson AFB (3)
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Trng Facs O (1000)

BO P11102.1 J
11 Jun 1980

LOCATOR SHEET

Subj: Standing Operating Procedure for Training Facilities
and Services

LOCATION:

(Indicate the location(s) of the copy(ies) of this
publication.)

ENCLOSURE (1)

REPORTS REQUIRED

<u>Report</u>	<u>Submitted by</u>	<u>Submitted to</u>	<u>Ref</u>
I. Training Facilities Discrepancy Report	Training Unit	Base TFO	Para 201.4
II. Use of NBC Agents	Training Unit	Base TFO	Para 206.10
III. Serious Injury or Death	Training Unit	Range Control	Para 403.8
IV. Malfunction of Ordnance	Training Unit	See Reference (m)	Para 406.8
V. Dud Report	Training Unit	Range Control	Para 411.1
VI. Assumption of Responsibility for Maneuver Areas	Training Unit	Range Control	Appendix H-3

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SECTION I
General Information

101. PURPOSE. The purpose of this SOP is to provide a single, concise, all-encompassing source document for commands using training facilities at Camp Lejeune or requiring training services from Marine Corps Base, Camp Lejeune. The SOP specifically delineates responsibilities, describes facilities available for training in the Camp Lejeune complex, provides instructions on how to obtain training services or the use of facilities and prescribes safety regulations for live firing and air operations.

102. DUTIES AND RESPONSIBILITIES

1. ASSISTANT CHIEF OF STAFF, TRAINING

a. Plan, coordinate and supervise the operation of Base Training Facilities and services and plan for future development of training facilities and services under the cognizance of this Command.

b. Promulgate appropriate directives, correspondence and messages regarding training facilities and services.

c. Assume cognizance of the operation of the Base Training Facilities Branch, including formulation of policies for the scheduling, assignment, maintenance and minor construction of training facilities.

d. Assume responsibilities as directed in other sections of this SOP.

2. ASSISTANT CHIEF OF STAFF, FACILITIES

a. Implement staff action as required to accomplish the development, modification, and maintenance of Base Training Facilities after requirements have been determined by other staff sections or organizations and the concept approved by proper authority. Assume cognizance of range development projects for presentation to the Resources Board for Facilities Development Programs, for inclusion in the Military Construction Program.

b. **Recommend to the Resources Board for Facilities Development Programs** priorities for these approved development projects that will be accomplished by station forces.

c. Assist in coordinating technical support for completion of the planning phase of range development projects, including design supervision, material adequacy and cost estimation.

d. Establish working arrangements and material support required for all approved Troop Training Projects.

3. BASE SPECIAL SERVICES OFFICER

a. Assume cognizance of live fire ranges and training pools when used for recreational purposes.

b. Publish instructions or directives as necessary regarding the scheduling and operation of training facilities when used for recreational purposes.

c. Assume responsibilities as directed in other sections of this SOP.

4. BASE MAINTENANCE OFFICER

a. Conduct an annual training facilities inspection/evaluation with the Base Training Facilities Officer and establish a consolidated list of maintenance requirements. Assign priorities as recommended by the Training Facilities Officer. Designate projects which will be accomplished by Base Maintenance personnel, by the Training Facilities Branch, or which should be accomplished by contract.

b. Program and budget for the maintenance of training facilities. Assign appropriate job order numbers to the Training Facilities Officer to accomplish maintenance of certain roads and grounds, buildings and structures, and for heavy equipment usage. Maintain secondary roads and tank trails including drainage culverts in accordance with priorities established by the Assistant Chief of Staff, Training.

c. Ensure that all field MAG lines are properly maintained.

5. BASE TRAINING FACILITIES OFFICER

a. Assist the Assistant Chief of Staff, Training in the execution of responsibilities described in paragraph 102.1 above and other responsibilities assigned in this SOP.

b. Coordinate the scheduling, assignments, and maintenance of all Base training facilities.

c. Serve as the Base Range Control Officer. See Section IV.

d. Recommend long range training facility development programs.

e. Supervise all activities of the Training Facilities Branch and assume responsibilities as directed in other sections of this SOP.

6. BASE COMMUNICATION-ELECTRONICS OFFICER

a. Budget for and provide necessary communications equipment and maintenance support for Base Range Control requirements other than telephone facilities.

b. Conduct a continuing review of all communications equipment provided to Base Training Facilities Branch to ensure operational capability and that equipment is adequate to meet the control requirements of Base Range Control.

c. See paragraphs 403.4 and 416 in Section IV, and Appendix B for matters pertaining to communication control requirements.

7. BASE EXPLOSIVE ORDNANCE DISPOSAL OFFICER

a. Provide routine EOD support as directed by the Base Training Facilities Officer.

b. Provide emergency EOD support to commands at Camp Lejeune and local authorities as required.

c. Provide inerting service for units when possible and approved by HQMC. Serviceable ordnance items must be supplied by requesting unit.

d. Insure unit training aids are certified "Inert/Empty".

8. COMMANDING OFFICER, RIFLE RANGE DETACHMENT. Ensure that facilities are utilized and policed in accordance with this SOP and other pertinent directives.

103. DEFINITIONS. Definitions of terms peculiar to Base training facilities and services are contained in Appendix A-Glossary. Locally approved terminology is used and does not necessarily correspond to official designations.

104. PECULIARITIES OF CAMP LEJEUNE

1. PHYSICAL CHARACTERISTICS

a. Marine Corps Base, Camp Lejeune encompasses approximately 109,000 acres, of which 81,000 are land. Approximately 40,000 acres are devoted to maneuver areas and another 30,000

acres contains field firing ranges. The Base perimeter is nearly 68 miles, with 14 miles of ocean front paralleled by the Intracoastal Waterway.

b. The heavy use of a relatively limited area for live fire and troop training exercises, compounded by airspace and waterway restrictions, necessitates efficient procedures of scheduling, assignment, use and positive control of Base training facilities and related air and sea space to insure economic and safe utilization of available real estate.

2. TERRAIN-AIRSPACE RELATIONSHIPS

a. All airspace over Camp Lejeune is subject to Federal Aviation Regulations; however, a major portion of Camp Lejeune lies within airspace designated by the Federal Aviation Administration as Restricted Areas R-5306D and R-5306E. The "Controlling Agency" for these two areas is the Federal Aviation Administration, Air Route Traffic Control Center, Washington, D. C., and the "Using Agency" is designated as the Marine Corps Air Station, Cherry Point Approach Control under the command of the Commanding General, Marine Corps Air Station, Cherry Point, N.C. The Using Agency is responsible for proper management of the Restricted Airspace when it is being utilized by the Using Agency. The Controlling Agency may authorize IFR/VFR aircraft operations in the restricted areas when they are not being utilized by the Using Agency.

b. By a Joint Use Letter of Agreement for Scheduling and Use of Restricted Area 5306 (sub-parts R5306D and R5306E) between Marine Corps Air Station (MCAS), Cherry Point and Marine Corps Base (MCB), Camp Lejeune, the Commanding General, MCAS, Cherry Point has sub-delegated the scheduling authority of R5306D and R5306E to the Commanding General, MCB, Camp Lejeune due to the nature and proximity of ground and air activity conducted within the respective Restricted Areas. Such authority is subject to the following specified procedures and responsibilities which have been established to ensure proper management of the Restricted Airspace when not in use:

(1) The Camp Lejeune Range Control Officer (AVN 484-3064/5803) shall notify the Cherry Point Air Traffic Control Facility (ATCF) Watch Supervisor (AVN 582-2634, or established land line) of intended use of the subject airspace (normally by 1600 on the preceding day of scheduled activity, or one hour prior in other non-scheduled cases).

(2) The notification by the Range Control Officer shall consist of, but is not limited to:

- (a) Date/s required.
- (b) Area (R5306D, R5306E or both).
- (c) Time period.
- (d) Altitude block.
- (e) Type of activity (specific).

(3) The Range Control Officer shall notify the ATCF Watch Supervisor of any changes or cancellations of pre-scheduled activity.

(4) The ATCF Watch Supervisor shall ensure that Washington Center (Missions)/New Bern Flight Service Station is notified of the schedule by 1830 on the preceding day of scheduled activity, or one hour prior in other non-scheduled cases.

(5) Telephone notification, and subsequent communications, concerning scheduling, shall be documented by both parties and retained for a minimum of 18 months.

(6) The ATCF Watch Supervisor shall coordinate with the Range Control Officer when the ATCF has an air traffic control requirement to use the pre-scheduled airspace. Requirements of this nature shall normally be limited to emergencies.

(7) Normally, each Friday, the R5306D and R5306E weekend activity will be reported to the ATCF by 1600 and Washington Center by 1830.

3. NAVIGABLE WATERWAYS

a. Live firing and amphibious training at Camp Lejeune frequently affects navigation on New River, the Intracoastal Waterway and offshore areas of the Atlantic Ocean. Waterways under Federal control are defined by the Director, Coast and Geodetic Survey, U.S. Department of Commerce, who publishes appropriate regulations regarding their use.

b. The Secretary of the Army, through the U.S. Army Corps of Engineers, publishes Notices to Mariners for the navigable waters of the United States which are likely to be endangered by live firing. The authority to regulate traffic in and on the navigable waters at Camp Lejeune, however, has been delegated by the Secretary of the Army to the Commanding General, Marine Corps Base.

105. PLANNING AND PROGRAMMING REQUIREMENTS

1. The varied commands training at Camp Lejeune require many different types of training facilities. Different mission requirements, limited real estate, and airspace and waterway restrictions necessitate economical and efficient use of available facilities to satisfy all training unit requirements.

2. Future development of facilities to meet changing training requirements require careful consideration of future ordnance developments and training doctrine. Construction, maintenance and use of training facilities must meet current requirements, as well as allow for future developments.

3. Each major command utilizing facilities at this Base should continually review current and future training facilities requirements, making recommendations to this Headquarters, as appropriate, to enhance the successful accomplishment of their training mission at Camp Lejeune.

SECTION II
TRAINING FACILITIES

5

201. GENERAL1. BACKGROUND INFORMATION

a. Training Facilities Branch under the supervision of the Assistant Chief of Staff, Training, controls and maintains training facilities aboard Camp Lejeune, including all maneuver areas and live fire ranges. The Training Facilities Officer serves as the Base Range Control Officer and exercises the coordination and control necessary to ensure a safe relationship exists between separate units utilizing live fire ranges, maneuver areas, high ordinate gun positions and air space.

b. Base Training Facilities Branch is the primary scheduling agency for Base Training Facilities except the Base Rifle Range. In some cases, training facilities are assigned on a priority of use basis to the training unit or command that is the principal user, in order to reduce administrative scheduling requirements. Priority of use assignments for live fire ranges are listed in paragraph 202. See Appendix D for scheduling agencies of field training facilities.

c. This Command publishes a weekly firing notice to apprise garrison units of all authorized live firing and high ordinate airspace utilization within Restricted Areas R5306D and R5306E in accordance with reference (a). (Note: Live firing and high ordinate airspace utilization is not authorized over land areas outside of R5306D and R5306E.) In addition, scheduled use of tactical landing zones, maneuver areas, sea space and Combat Town is published in the weekly firing notice. The firing notice is published at least ten days prior to the first day of the week of training. Notices to Airmen, messages concerning the utilization of air space and Notices to Mariners are published concurrently with the weekly firing notice.

d. Camp Lejeune Special Map, Approaches to New River, Stock Number V-742 SCPLEJEUNE 5th Ed., Sep 25, 1976, contains geographic locations and boundaries of ranges, maneuver areas and field training facilities.

e. Live fire ranges are described in Appendix B. Field training facilities are listed in Appendix D.

2. SCHEDULING PROCEDURES

a. Requests for training facilities under control of Base Training Facilities Officer will be submitted in accordance with the instructions in paragraphs 202 through 206, using one of the following methods:

(1) Submit memorandum request via the chain of command to the Base Training Facilities Officer. Approval or disapproval of requests is confirmed by publication of the weekly firing notice and/or return endorsement.

(2) Submit letter via the chain of command to this Headquarters (Attn: Assistant Chief of Staff, Training) for late requests, changes to the weekly firing notice and special requests as required in paragraph 206 below. Approval or disapproval of requests is confirmed by return endorsement.

(3) Telephone Base Training Facilities Officer (Attn: Scheduling NCO, ext. 3064) for routine requests not requiring promulgation in the weekly firing notice. Second Marine Division and 2dFSSG (Rein) units relay telephone requests via the chain of command. In certain cases, late requests, requests to change the weekly firing notice and special requests may be telephoned, but must be followed by written confirmation of the request.

b. Deadlines for requests to the Base Training Facilities Officer are described in paragraphs 202 through 206 below.

c. When other commitments preclude use of a scheduled facility, the unit/command scheduled to use the facility will notify the Base Training Facilities Officer, via the chain of command, of the cancellation as soon as it is apparent that cancellation is required.

3. POLICE OF TRAINING FACILITIES

a. Police of Base Training Facilities and maneuver areas is the responsibility of the using unit.

b. Several trash pick-up points have been established throughout the Base and are serviced by Base Maintenance. The locations of these points are: Marine Road (878331); Sneads Ferry Road (902321); Mile Hammock Bay Road (873283); LZ Goose (919311); OP-2 (914373). Before securing from the training area utilized, each unit will police the area thoroughly and remove their trash to one of the above trash pick-up points or the main trash dump. Metal or lumber should not be placed in the Dempster Dumpster type containers, but will be taken to the main trash dump. Ordnance items, boxes, powder, fiber containers etc., must be returned to the Main Ammo Dump.

c. In addition, a police program has been established with the concurrence of the Commanding Generals, 2d Marine Division and 2dFSSG (Rein) to operate on a continuing basis. This police detail is assigned on a permanent basis, Monday through Friday, holidays excepted.

(1) The police detail consists of the following personnel and equipment:

(a) Three Corporals/Lance Corporals (must be qualified prisoner chasers) and one covered 6x6 cargo truck with vehicle operator provided by Commanding General, 2d MarDiv.

(b) One Sergeant (NCOIC) and one dump truck with vehicle operator provided by Commanding General, 2d FSSG, (Rein).

(c) Fifteen prisoners for the detail provided by the Marine Corps Base Correctional Services Officer.

(2) Special Instructions:

(a) The NCOIC of the police detail will report to the Training Facilities Maintenance Officer, Bldg. 827, (ext. 3542), by 0700 each working day for instructions and the necessary tools to accomplish the day's assignments.

(b) Prisoner chasers and vehicle operators (with vehicles) will report by 0700 each working day to the NCOIC of the range police detail at Training Facilities Maintenance, Bldg. 827.

(c) The NCOIC will form his work detail at the Base Correctional Facility, and proceed with the police of assigned ranges, reporting back to the Range Maintenance Officer when the assignment has been completed or by 1600.

4. TRAINING FACILITIES DISCREPANCY REPORTS

a. Periodic inspections are conducted by the Range Control and Range Maintenance Sections of the Base Training Facilities Branch to ensure effective and timely police and maintenance of training facilities and adherence to safety regulations.

b. Unit commanders and their representatives are encouraged to report discrepancies in the safe use, police and maintenance of training facilities to the Base Training Facilities Officer. Appendix G is the format used by the Base Training Facilities Branch.

202. LIVE FIRE RANGES1. REQUESTING PROCEDURES

a. Requests for assignment of and/or authorization to conduct live fire on ranges will be submitted to this Headquarters by one of the methods described in paragraph 201.2 above. Requests must arrive by 1600 on the Monday, fourteen days prior to the first day of the week of training. Requests will include:

- (1) Range requested.
- (2) Date and hours of firing.
- (3) Designation of firing unit.
- (4) Weapons and ordnance to be fired
- (5) Coordinates of gun positions
- (6) Observation Posts
- (7) Any amplifying information, such as requests to close highways or the Intracoastal Waterway.

b. Changes to previous requests and late requests may be submitted to arrive no later than 1200 on the Thursday preceding the week of training. Normally, requests involving changes to the use of air or sea space which require Notices to Airmen or Notices to Mariners will not be permitted.

c. When requesting permission to use non-designated gun positions, justification and overlays of the surface danger zones will be prepared in accordance with reference (a) and will accompany the range request.

d. When other commitments preclude use of a scheduled facility, the unit/command scheduled to use the facility will notify the Base Training Facilities Officer via the chain of command of the cancellation as soon as it is apparent that cancellation is required.

2. PRIORITY ASSIGNMENTS. Assignment of ranges on a priority of use basis does not preclude the necessity of requesting authorization and adhering to Marine Corps Base Safety Regulations. Priority assignments to the training unit or command that is the principal user are:

a. Range A-1 is assigned to Marine Corps Service Support Schools.

b. Range D-9 is assigned to Base Special Services.

c. Range G-4 is assigned to 2d Marine Division for use by the 2d Combat Engineer Battalion.

d. Range G-4A "Duck Pond" (GC 93353340) and Range K-326 "Verona Loop" are assigned to EOD units aboard Camp Lejeune and New River MCAS (H) for the disposal of ammunition and stripping of ordnance related items.

e. Ranges I-1 and I-2 are assigned to Marine Corps Engineer School.

203. TACTICAL LANDING ZONES AND PARADROP ZONES

1. REQUESTING PROCEDURES

a. Requests for assignment of Tactical Landing Zones involving helicopter or paradrop operations will be submitted to arrive by 1600 on the Monday, fourteen days prior to the first day of the week of training. Requests will include:

- (1) Name of TLZ.
- (2) Date and hours of training.
- (3) Designation of training unit.

(4) Type training (Troop lift, equipment lift, personnel paradrop, equipment paradrop or helicopter crew training).

b. Requests not involving use of air space must be submitted to arrive by 1200 on the day preceding training and will include the information required in paragraph 203.1.a above.

2. NON-SCHEDULED USE OF TLZ's BY HELICOPTER UNITS. Use of Tactical Landing Zones is permitted without formal scheduling, providing permission is requested from and granted by the Range Control Officer. See paragraphs 412.4,b, 412.6.a and 412.7.

3. PARADROP EXERCISES

a. Paradrop exercises may be conducted in the airspace within Restricted Area R5306D into the following TLZ's (See Appendix D): Albatross, Bluebird, Canary, Falcon, Penguin, Goose, Crow and Dodo.

b. Paradrop exercises in the airspace within the MCAS (H), New River Control Zone into TLZ's Cardinal, Condor and Eagle may be conducted with prior approval and coordination of the Commanding Officer, MCAS (H) New River in accordance with Federal Aviation Regulations.

204. MANEUVER AREAS

1. Requesting procedures. Maneuver areas may be requested from the Base Training Facilities Officer at any time by one of the methods described in paragraph 201.2.

2. MISCELLANEOUS

a. Maneuver areas CA, CB, DA, that portion of DC south of the Main Service Road and west of gridline 87, and the FAD area in grid squares 8742 and 8741 are in a restricted category and are not available for training.

b. QB area within that portion of GS 9437 south of Lyman road is reserved for Division Training and Evaluation Unit. Units conducting training within this section will remain clear of buffer zone.

c. D-11A, GS 8736 and GS 8737 north of main service road is assigned to 2d Tank Battalion.

d. Commanders of units scheduled to utilize training/maneuver areas will designate a commissioned officer to check out the desired area(s) from Base Range Control. This officer will accomplish the following:

(1) Report to Base Range Control, Building #1 and sign the Assumption of Responsibility for Maneuver Areas check out sheet and receive briefing at least 24 hours prior to scheduled time of use.

(2) Upon arrival at training site(s) report any police discrepancies immediately to Range Control.

(3) Upon completion of training and within 24 hours, return completed check-out sheet to Range Control.

e. Scheduling and assignments of maneuver areas does not include the use of training facilities within that area.

f. Certain sites within the training areas; i.e. Fish Management Ponds and Red Cockaded Woodpecker sites are off limits to track vehicles. The woodpecker sites are conspicuously marked, and the buffer zones will be avoided by mechanized vehicles.

(1) Tracked vehicle prohibited areas will extend outward 50 meters from the waters edge of managed fresh water fish ponds.

(2) When entering these areas tracked vehicles are restricted to the use of designated tank trails and roads. Every effort will

be made to minimize ecological damage to areas traversed by mechanized vehicles.

g. In non-restricted areas tracked vehicle commanders may move off established trails in order to tactically maneuver his vehicle or unit, assume defensive positions, seek camouflage and concealment or conduct a final assault. In each case, the vehicle commander will insure conservation measures set forth in reference (w) and (x), use discretion to avoid damaging man-made facilities and minimize damage to ground cover.

h. When other commitments preclude use of a scheduled maneuver area, the unit/command scheduled to use the area will notify the Base Training Facilities Officer via the chain of command of the cancellation as soon as the schedule change is known.

i. Tracked and wheeled vehicles will cross railroad tracks only at designated crossings.

j. All tracked vehicles will cross hard surface roads (highways) at authorized crossings when conducting administrative road marches and non-tactical type training. (During tactical operations/exercises tracked vehicles will be authorized for crossing anywhere on hard surface roads when safe movement is absolutely insured and no road damage will result.) Prior to crossing any hard surface roads, road guards will stop all traffic coming from either direction. When safe movement is ensured tracked vehicles will proceed across the highway. Upon completion of the crossing, all debris (i.e. dirt, mud), will be removed from the highway to prevent any safety hazards to traffic.

205. FIELD TRAINING FACILITIES

1. REQUESTING PROCEDURES

a. Requests for field training facilities which are assigned by Base Training Facilities Officer, except Combat Town, may be submitted any time by one of the methods described in paragraph 202.2 above and will include the name of the facility, date and hours of desired use and the designation of the using unit.

b. All Range Safety Officers and Commissioned Officers designated to check out training/maneuver areas will read and familiarize themselves with references (w) and (x) prior to assumption of responsibility.

c. See Appendix D for major field training facilities available and the appropriate scheduling agencies for each.

2. COMBAT TOWN

a. Requests for training in Combat Town will include:

(1) Date and hours of use.

(2) Designation of the using unit and officer in charge of training.

(3) Scope of training, including intended use of vehicles, pyrotechnics, land mine/booby trap simulators and blank firing.

b. In all cases, units scheduled to train in Combat Town will designate an officer in charge of training who will sign the facility out and in as prescribed for live fire ranges in paragraph 403.8 in Section IV.

c. Requests for use of Combat Town must be received at least 24 hours prior to the unit entering the area. Telephone requests normally will not be accepted.

d. See Appendix F for special regulations for Combat Town.

e. The Range Safety Officer will read and familiarize himself with reference (w) and sign an assumption of responsibility.

206. SPECIAL REQUESTS

1. CAMP DAVIS

a. Marine Corps Helicopter Out Lying Field (MCHOLF), Camp Davis is leased from International Paper Company and is under the operational control of the Commanding Officer, MCAS (H), New River. The leased area consists of the two (2) runways and a 600 foot helicopter safety strip around each runway.

b. Request for use of MCHOLF must be submitted to this Headquarters (Attn: Assistant Chief of Staff, Training) a minimum of 30 days prior to training dates. Request must contain the following information

- (1) Date and time of use.
- (2) Specific area to be used.
- (3) Using unit.
- (4) Number of troops
- (5) The scope and nature of training to be conducted

2. NATIONAL FORESTS

a. An agreement between the Department of the Navy and the Department of Agriculture provides for the use of national forest lands for training purposes only when other available facilities are determined to be inadequate. The Commanding General, Marine Corps Base, has the delegated authority to execute an agreement with the Forestry Service

6 for use of national forests for training periods not to exceed seven consecutive days. Periods of training in excess of seven days must be processed by the Commandant of the Marine Corps.

b. Requests for use of national forest lands for training not to exceed seven consecutive days will be submitted by letter to arrive at this Headquarters (Attn: Assistant Chief of Staff, Training) at least 45 days prior to date training is to commence. Requests for training periods in excess of seven days will be submitted at least 60 days prior to date training is to commence.

c. The using commander shall meet with the Forest Supervisor's designated Forest Liaison Officer at or near site of planned occupancy approximately one week prior to requested beginning date of forest occupancy. Purpose of meeting is to discuss and grant approval of specific sites for bivouac, sanitary facilities parking areas, trash disposal, use of forest roads and other related impacts resulting from use by the military of National Forest lands. The using unit commander will post those Forest Service system roads in the immediate vicinity of the exercise area with signs to caution the public of the roads' use by military vehicles.

d. In addition to special instructions received from the Forest Liaison Officer, all range regulations which apply to Camp Lejeune ranges apply to National Forests.

3. CIVIL DISTURBANCE TRAINING

a. Civil disturbance training will be conducted in designated maneuver areas and Base Combat Town whenever possible. When necessary to achieve realism, or to conduct demonstrations, certain portions of administrative areas may be requested; however, administrative areas will not normally be scheduled during hours that facilities in these areas are open.

b. Requests for use of an administrative area will be submitted by letter to arrive at this Headquarters (Attn: Assistant Chief of Staff, Training) at least two weeks prior to the date requested. The request will include the following information and will be forwarded via the appropriate area commander, who will endorse concurrence or non-concurrence.

- (1) Date and hours desired including rehearsals.
- (2) Special equipment, vehicles, ammunition to be used.
- (3) Sketch of the specific area desired, including building numbers, streets and boundaries within which the exercise will be conducted.
- (4) Purpose of the exercise (i.e. Training, demonstration).
- (5) Amplifying information, including measures to be taken to block traffic, and mark and post the area.

c. The following regulations apply to the use of administrative areas for training purposes:

- (1) The use of smoke will be confined to streets only, with special precautions taken to ensure that smoke grenades are not placed against buildings.
- (2) The use of grappling hooks or similar equipment is not permitted.
- (3) The area will be well posted and marked to ensure the safety of unsuspecting personnel.
- (4) A minimal amount of rifle blank ammunition may be used to simulate sniper fire.
- (5) Training is restricted to street level; access into buildings or on rooftops is prohibited.
- (6) Training will not interfere with normal operations within the authorized area. Access may be controlled, but not denied to commercial freight carriers, who will be allowed uninterrupted entry into, passage through and exit from the area. The training unit will not interfere with personnel required to conduct business within the area. Specifically prohibited is the practice of treating unsuspecting persons as a part of the exercise to achieve realism.

(7) The use of administrative areas for training purposes normally will not include Holcomb Boulevard, Sneads Ferry Road, Main Service Road or other main traffic arteries.

(8) Administrative areas will not be scheduled for training during traffic rush hours or during peak hours at public facilities such as the Commissary, Exchange and Service Station.

4. SPECIAL TRAINING EXERCISES. Requests for combined air/ground exercises, Joint Civilian Orientation Conference (JCOC), Special Purpose Exercise (SPEX), Reserve Landing Exercises (i.e. RESLEX) and other large scale training exercises will be submitted to the Base Training Facilities Officer by the senior command involved, via the chain of command as a consolidated request package, using either or both Form MCBCL 3574/2 (Appendix E) and letter requests as necessary. For deadlines for the submission of requests, refer to the appropriate subparagraph for each type request (i.e. live firing, TLZ, Intracoastal Waterway closure, etc.). Subsequent changes and late requests will be submitted in accordance with paragraph 201.2.a.(3) above.

5. CLOSURE OF THE INTRACOASTAL WATERWAY. Requests for closure of the Intracoastal Waterway will be submitted by letter to this Headquarters (Attn: Assistant Chief of Staff, Training) as follows:

a. Closure of less than 12 hours must be received at least 45 days in advance of the closure.

b. Closures in excess of 12 hours must be received at least 20 weeks in advance of the closures.

6. CLOSURE OF HIGHWAYS. Requests for closure of Highway 172 or other main traffic arteries in Camp Lejeune for the purpose of conducting training exercises will be submitted by letter to arrive at this Headquarters (Attn: Assistant Chief of Staff, Training) by 1200, Monday, 14 days prior to the first day of the training week concerned.

7. LIVE FIRE IN NON-DESIGNATED AREAS

a. Requests to conduct live fire exercises in areas not designated as live fire ranges, or the use of weapons and ammunition on ranges for which Appendix B does not specifically

authorize such use, will be submitted by letter to this Headquarters (Attn: Assistant Chief of Staff, Training) setting forth all pertinent details and justification for the request.

b. Permission to use $\frac{1}{4}$ pound TNT blocks to provide realistic training on ranges or areas not authorized by Appendix B may be requested by memorandum to the Base Training Facilities Officer, to arrive at least 14 days prior to the date of training.

c. Overlays of the surface danger zone are required if the use of non-designated gun positions is requested.

8. ONslow BEACH RECREATIONAL AREA

a. Requests for training in this area will be submitted by letter to this Headquarters (Attn: Assistant Chief of Staff, Training), at least two weeks in advance of the training to be conducted.

b. See reference (b).

9. USE OF RED PYROTECHNICS. Red smoke grenades and pyrotechnics are used as an emergency or danger signalling device and will not be used for training unless specifically authorized by the Assistant Chief of Staff, Training.

10. USE OF NBC AGENTS. Notify the Base Training Facilities Officer by telephone or memorandum at least 48 hours prior to the intended outdoor use of CS and standard agent simulants. Use of NBC agents will be in accordance with regulations contained in paragraph 417.3 of this order.

11. SUSPENSION OF SAFETY REGULATIONS. Requests to temporarily suspend any portion of the safety regulations contained in Section IV due to training requirements will be submitted in writing, setting forth all attendant circumstances and justification, to this Headquarters (Attn: Assistant Chief of Staff, Training).

12. PRESERVATION OF TREES AND OTHER MAJOR VEGETATION. In the interest of preservation of natural ground cover, no trees, flowering shrubs, wild game food plots, or other major vegetation will be damaged, cut or otherwise removed without specific authority. Requests for removal of vegetation will be directed to this Headquarters (Attn: Assistant Chief of Staff, Training).

207. PROHIBITED AREAS. The following areas are restricted to entry and for training as follows:

1. HAZARDOUS AREAS

a. High Explosive Impact Areas

(1) G-10, K-2 and N-1 impact areas may be entered only when accompanied by explosive ordnance disposal personnel and with the permission of the Base Range Control Officer. No training will be authorized within those areas except for EOD Personnel.

(2) No training will be scheduled on the down range portions of ranges F-6, G-8, K-211, K-323, K-325, G-9, K-301, K-303, K-305 and K-405, with the exception of EOD Personnel. Down range movement is permitted only if accompanied by explosive ordnance disposal personnel.

b. Live Minefield Site: See reference (c). (Grid coordinates 936310 to 939306 to 943309 to 943313)

c. Chemical Dump. See reference (d). (Grid Square 7728)

2. EXCLUSION AREAS AND LIMITED AREAS. Building SH-8 and Magazines SHE-12 and SHE-13 are designated as Exclusion Areas and the fenced in areas surrounding them are designated as Limited Areas.

3. RESTRICTED CATEGORY TRAINING AREAS. Maneuver areas CA, CB, DA, that portion of DC south of the Main Service Road and west of gridline 87, and the FAD area in grid squares 8742 and 8741 are in a restricted category and are not available for training.

4. ADMINISTRATIVE AREAS. Training normally is not permitted in administrative areas, except in specific training facilities located within the area, such as D-9, D-29, D-30 small arms ranges and the area five training pool.

5. ONSLow BEACH. The beach area is the primary amphibious training area at Camp Lejeune. When not in use for training, the central portion, designated Onslow Beach, is open for recreational purposes. For safety purposes, the use of Onslow Beach for training requires specific authorization at least two weeks in advance of training. Use of blank ammunition and explosives may be authorized in accordance with the procedures set forth in paragraph 206.8.

6. FOOD PLOTS. Food plots are located within maneuver areas and are prominently marked. Units will remain clear of all food plots.

208. MISCELLANEOUS1. ADMINISTRATIVE LANDING ZONES

a. ALZ's are not formally scheduled although aircraft landing at LZ 4 will obtain clearance from Base Range Control prior to touchdown. (ALZ 4 is not authorized for Helo Ops during the hours of 0745 to 0815 daily). Advance notification of the intended use of an ALZ for other than routine administrative operations should be made to the appropriate area commander.

b. In all cases, aircraft penetration of Restricted Areas R-5306D and R-5306E while in use, will be controlled by Base Range Control by radio.

2. RECREATIONAL USE OF TRAINING FACILITIES

a. Training pools, Area #2 and Montford Point, are available for recreational use of units and dependents, subject to training requirements. See Appendix D.

b. Requests for recreational firing will be submitted as indicated via the Assistant Chief of Staff, Training:

- (1) B-12 (Pistol and .22 Rifle Range) - Base TFO
- (2) D-6 (cal .22 Range) - Base TFO
- (3) D-9 (Skeet Range) - Base Special Services Officer
- (4) F-11 (Pistol Range) - Base TFO
- (5) Base Rifle Range - CO, Rifle Range Detachment

3. REQUESTS FOR CIVILIAN AND MILITARY DEPENDENTS TO OBSERVE TRAINING ABOARD CAMP LEJEUNE. Request for authorization to permit civilian personnel and military dependents to observe training aboard Camp Lejeune will be submitted, via chain of command to CG, MCB (Attn: Assistant Chief of Staff, Training) stating:

- a. Type of training (ordnance to be fired).
- b. Date and time.
- c. Training area.

SECTION III
TRAINING SERVICES

301. GENERAL

1. BACKGROUND INFORMATION. The Base Training Facilities Branch, under the supervision of the Assistant Chief of Staff, Training, provides various services to military units utilizing training facilities at Camp Lejeune in addition to those authorized in Section II.

2. TRAINING SERVICE AVAILABLE

a. Minor construction and maintenance of training facilities.

b. Explosive ordnance disposal team support.

c. Wet-Bulb Globe Temperature reports.

d. Blast forecast for the Camp Lejeune Area.

302. MINOR CONSTRUCTION AND MAINTENANCE

1. MINOR CONSTRUCTION. New construction projects may be authorized for accomplishment by troop training provided the criteria outlined in reference (e) is met and approval is received from the Assistant Chief of Staff, Facilities, Marine Corps Base.

2. MAINTENANCE

a. Routine maintenance of training facilities is performed on a regular basis by the Training Facilities Branch, Range Maintenance Section and includes:

(1) Repair of gates, fences, signs and flagpoles.

(2) Limited repair of buildings, structures and towers.

(3) Improvement of firing lines, berms, and firing pits.

(4) Clearance of undergrowth.

(5) Repairs to target carriers, railways and targets.

(6) Repairs to training devices such as weapons simulators and pop-up targets.

b. Emergency maintenance of training facilities within the capabilities of the Range Maintenance Section will be performed as soon as possible on a priority basis when required to preclude lost training time or ineffective training.

3. REQUESTING PROCEDURES

a. Minor Construction

(1) All requests involving construction, alteration, repair or replacement of real property, and involving a training consideration, will be submitted to the Base Assistant Chief of Staff, Facilities. The request will be submitted via the Assistant Chief of Staff, Training, who will make appropriate recommendations by endorsement regarding the validity of the training requirement, estimated costs, and capabilities of the Range Maintenance Section to perform the project. The Training Facilities Officer will assist in the preparation of this endorsement.

(2) Projects will be submitted between 1 March and 1 May annually and will include a priority listing. Emergency projects or changes in priorities of the annual submission may be submitted at any time.

(3) The Range Maintenance Officer (phone 5211/3542) will provide cost estimating assistance to requesting units prior to submission of construction requests.

b. Minor Maintenance

(1) Requests or recommendations for routine maintenance of training facilities will be submitted to the Training Facilities Officer in writing. The use of Appendix G by using units and Appendix H by officers in charge of firing will be utilized for this purpose.

(2) Emergency requests for minor maintenance of training facilities may be telephoned to the Range Control Duty Officer (3064) or the Range Maintenance Officer (3542/5211).

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303. EXPLOSIVE ORDNANCE DISPOSAL

1. SUPPORT PROVIDED. The Base Explosive Ordnance Disposal Team, supported by the 2d FSSG Explosive Ordnance Disposal Platoon and the MAG-29, New River, Marine Corps Air Station (H) Explosive Ordnance Disposal Team, provides routine training and emergency support in accordance with reference (f) including:

- a. Clearance of unexploded ordnance on live fire ranges.
- b. Disposal of explosive ordnance jettisoned or dropped from aircraft, or which has been involved in a fire or accident.
- c. Support for the disposal of unserviceable ammunition.
- d. Assistance to units conducting live fire, such as hand grenades.
- e. Support for emplacement of targets in high explosive impact areas.
- f. Provide Inerting Service when possible to those training units supplying serviceable ordnance items.
- g. Insure unit training aids are certified "Inert/Empty".

2. AREAS OF RESPONSIBILITY. By mutual agreement, the Base EOD Team and MAG-29 EOD Team are responsible for routine support of the Camp Geiger/Verona Loop Area and ranges west of New River, while the 2d FSSG EOD Platoon supports units and ranges east of New River. Emergency support is provided by the EOD Duty Watch, manned by all three (3) EOD units.

3. REQUESTING PROCEDURES

- a. During normal working hours telephone the Base EOD Team, located at Building G-480, Camp Geiger (phone 0118 or 0382) or Base Training Facilities Officer (phone 3064/3065).
- b. After working hours telephone the Base Staff Duty Officer (phone 2526 or 2527).
- c. Emergency requests will include the name and organization of the requesting individual and the location and description of the ordnance involved.

304. WET-BULB GLOBE TEMPERATURE REPORTS

1. GENERAL. Marine Corps Base operates five Wet-Bulb Globe Temperature (WBGT) Stations in accordance with reference (g) from 1 May to 30 September, annually, to provide WBGT Index readings to all commands at Camp Lejeune during the heat casualty danger period.

2. WBGT STATIONS The Base Training Facilities Officer coordinates the operation of the following WBGT Stations in accordance with reference (h):

Station Number 1, Bldg. 1404 (Mainside)	Phone 5046
Station Number 2, Base Rifle Range	Phone 7131/7257
Station Number 3, Bldg, BB-28 (MCES)	Phone 7470/7200
Station Number 4, Bldg, TC-705 (8th Marines)	Phone 0418/0225
Station Number 5, Bldg, M-131 (MCSSS)	Phone 6233/6163

3. REQUESTS FOR WBGT INDEX. WBGT Index readings may be obtained from the appropriate station between the hours of 0800-1700 Monday through Friday. Units requiring readings on weekends and holidays will telephone the Base Training Facilities Officer (5803) at least 48 hours in advance of the scheduled training.

4. MISCELLANEOUS

a. Units are cautioned that readings vary from station to station; therefore, reports should be requested from the station nearest the locale of the training to be conducted. See reference (h) for information regarding heat casualties and application of WBGT Index readings to training situations.

b. Annual establishment of WBGT station is published in a Base Bulletin, Series 6200, each April.

SECTION IV
TRAINING FACILITIES SAFETY REGULATIONS,

401. PURPOSE. To promugate regulations for control and safe use of areas on which live or simulated fire and air operations are conducted at Marine Corps Base, Camp Lejeune.

402. GENERAL INFORMATION

1. Map References. See references (i) and (j).
2. Definitions. See Appendix A. Training facilities are designated by locally approved terminology which does not necessarily correspond to the official designations listed on plant account records.
3. Safety regulations governing the firing of live ordnance within the boundaries of Camp Lejeune are based primarily on reference (a). All training involving the use of live ammunition or explosives will be in accordance with that document, other applicable field and technical manuals and this order.
4. By agreement with the Commanding Officer, MCAS (H) New River, the Weather Service Division will furnish to the Base Range Control Office, daily, recommended limitations (Blast Forecast) on the weight of high explosives which may be detonated on those ranges on which such ordnance may be employed. The limitations will apply to the detonation of single rounds/charges. No deviation from the limitations imposed will be permitted except by express authority of the Assistant Chief of Staff, Training. Additional readings of ordnance limitations may be obtained by contacting the Base Range Control Office. (3064).

403. RESPONSIBILITIES

1. ASSISTANT CHIEF OF STAFF, TRAINING

- a. Conduct a continuing review to insure safety regulations are adequate for all training facilities.
- b. Supervise the activities of the Base Range Control Officer.
- c. Publish a weekly firing notice of all scheduled field firing and high ordinate air space utilization to advise garrison units in accordance with reference (a).

d. Prepare and request publication of weekly Notices to Airmen (NOTAM's) and Notices to Mariners describing the air space and waters within which live firing will be conducted.

2. BASE TRAINING FACILITIES OFFICER

a. Assist the Assistant Chief of Staff, Training in the execution of his responsibilities as described in paragraph 403.1.

b. Serve as the Base Range Control Officer and:

(1) Exercise coordination and control necessary to insure safe relationships exist between separate units using training facilities, air space and waters.

(2) When required, provide a range control commissioned officer duty watch during live firing, paradrops and air operations.

(3) Assign priorities for the use of ranges, air space and waters and so indicate in the weekly firing notice.

(4) Authorize only that live firing as published in the weekly firing notice and subsequent changes.

(5) Conduct field training safety inspections periodically.

3. BASE SPECIAL SERVICES OFFICER. Enforce safety regulations on ranges under the cognizance of Base Special Services.

4. BASE COMMUNICATIONS-ELECTRONICS OFFICER

a. Conduct a continuing review of the use of communications equipment to insure that the operational capability and equipment is adequate to meet the control and safety requirements of the Base Training Facilities Branch.

b. See Appendix B and paragraph 416 of these regulations for matters pertaining to communication control and safety requirements on specific ranges.

5. BASE EXPLOSIVE ORDNANCE DISPOSAL OFFICER. Provide EOD support as directed by Base Training Facilities Officer.

6. COMMANDING OFFICER, RIFLE RANGE DETACHMENT. Supervise the operation of, promulgate and enforce safety regulations for ranges under his cognizance in accordance with existing directives. See Appendix B.

7. COMMANDING OFFICER OF TRAINING UNITS

a. Designate an officer in charge of firing or tactical air controller for each live fire, air or air/ground exercise.

b. Insure that Range Safety Officers assigned as officers in charge of firing are familiar with reference (a) and these regulations.

c. When commissioned officer personnel are not available a qualified Staff Noncommissioned Officer may be designated as Range Safety Officer.

d. Conduct only that training that has been authorized in the weekly firing notice or authorized changes thereto.

e. Provide medical corpsman with first aid equipment and military emergency vehicle as specified in Appendix B.

8. OFFICER IN CHARGE OF FIRING OR FORWARD AIR CONTROLLER

a. Designate, instruct and supervise range safety officer, position safety officers, range guards and air sentries as required. See Appendix B.

b. Direct and designate Range Safety Officer to report to the Range Control Duty Officer at Base Training Facilities (Bldg. 1) prior to proceeding to the range and:

(1) Assume responsibility for the scheduled range and related air and sea space. See Appendix H.

(2) Obtain safety equipment as specified in Appendix B.

(3) Receive briefing on conditions or events that may affect range utilization.

(4) Certify that all pertinent range and safety regulations have been read, understood and will be complied with.

c. Be physically present and personally direct and control all firing and/or air operations.

- d. Insure that a copy of these regulations are in his possession at all times live firing, air or air/ground operations are being conducted.
- e. Coordinate, as advised by Range Control Duty Officer, with units using adjacent ranges or facilities to ensure safe conduct of the exercise.
- f. Ensure all required communications have been established as specified in Appendix B. and paragraph 416 of these regulations.
- g. Receive clearance by telephone or radio from Range Control Duty Officer before commencing the exercise and conduct radio checks with Blackburn every 30 minutes.
- h. In the event of serious injury or death, suspend the exercise and:
- (1) Render first aid.
 - (2) Inform the nearest medical facility by the fastest means available of the location, nature of the accident and assistance required.
 - (3) If air evacuation is required, contact Range Control Duty Officer by radio, BLACKBURN (38.6 Megahertz VHF, or 325.0 Megacycles (UHF) field phone or Base telephone (3064, 3065) In the event Base Range Control cannot be contacted after normal working hours call the Base Command Duty Officer (2526, 2527).
 - (4) Notify Range Control Duty Officer of the location, nature of accident and action that has been taken.
 - (5) In the event Range Control cannot be contacted during normal working hours, notify Assistant Chief of Staff, Training, phone 5326 or 5720.
 - (6) Notify the Provost Marshal's Office, phone 2555.
- i. Ensure compliance with existing fire regulations as set forth in reference (k).
- j. Ensure personnel clear all weapons and turn in all unused ammunition upon conclusion of the exercise.
- k. Immediately report dud locations to Range Control Duty Officer, (See paragraph 411 of this order).

1. Notify Range Control by radio or telephone upon completion of firing.

m. Ensure brass and cartridge cases and reusable containers are removed from the range upon completion of the exercise, refer to reference (n).

n. Ensure all trash is removed from the range. Do not bury or burn trash.

o. Upon securing from the range or facility, return to the Range Control Duty Officer within 24 hours of completion of firing and:

(1) Report the range or facility secure and policed.

(2) Return safety equipment.

p. In the event of an accident or incident which could involve a claim against the government or an injury which may require hospitalization in excess of 24 hours, immediately initiate an appropriate investigation. Report the accident or incident to the Base Range Control Officer and Commanding Officer of the training unit. Cease all firing on the range of the incident and request the Base Range Control Duty Officer to cease fire on any adjoining ranges that may interfere with conducting the investigation. This investigation should determine the extent of damage or injury, cause of the incident and immediate corrective action to be taken. This information should be reported to the Base Range Control Duty Officer and Commanding Officer of the training unit before requesting permission to resume firing. A written report of the investigation should be forwarded to the Commanding General, Marine Corps Base (Attn: Assistant Chief of Staff, Training).

q. When a situation arises that is not specified in these regulations, call Range Control for assistance.

r. When a battalion conducts multiple live fire exercises over a 3 or more day period into the K-2 Impact Area the battalion S-3 is authorized to check out the required ranges for that period. The battalion S-3 will be required to:

(1) Personally sign out for and assume all responsibility for all scheduled ranges.

(2) Obtain safety equipment as specified in Appendix B as required.

(3) Provide Base Range Control with a list of Range Safety Officers assigned each range as scheduled during the entire period the battalion is using the range.

(4) Ensure that all Range Safety Officers are thoroughly briefed and comply with the contents of this SOP.

(5) Ensure that the battalion S-3 and Range Safety Officer establish and maintain communications with Blackburn as required by paragraph 416.

9. RANGE SAFETY OFFICER

a. Assist the officer in charge of firing.

b. Be physically present during the exercise and maintain surveillance of, and safety within, the entire surface danger zone.

b. Be familiar with all pertinent range and safety regulations.

10. POSITION SAFETY OFFICER

a. Assist the Officer in charge of firing by enforcing all safety regulations at the position to which assigned.

b. Be physically present at the designated position during the exercise.

404. COORDINATION AND CONTROL OF LIVE FIRING

1. TRAINING FACILITIES BRANCH. Coordination of all live firing, and control of high ordinate firing and air space over Camp Lejeune, paradrops of personnel or equipment or other training which may endanger personnel or property is exercised by this Headquarters through the Base Training Facilities Branch. This Branch maintains a Range Control Duty Officer watch to monitor, coordinate, control, and assist units engaged in scheduled exercises.

2. BASE RANGE CONTROL

a. The Range Control Duty Officer insures coordination and control of training to the extent necessary for safe relationships between organizations using the ground training facilities, water and the air space over Camp Lejeune.

b. Although units in the field are responsible for the safe conduct of training, the Base Range Control Duty Officer will issue "Cease Fire" orders when conditions which may be

8 unknown to the training unit endanger personnel or property. The Range Control Duty Officer informs each officer in charge of firing of known conditions that may affect the unit's training during the range check-out briefing.

c. In the event a report of an incident which could involve a claim against the government is received, a cease fire will be called on that range and any adjoining ranges that may interfere with the investigation by the firing unit. The firing unit will report the extent of damage or injury, cause of incident and immediate corrective action to be taken. The Range Control Duty Officer will report this information to the Training Facilities Officer or in his absence, the Assistant Chief of Staff, Training. If the report is received after hours, the Staff Duty Officer will be notified. This report is to be made before permission to resume firing is granted.

405. SAFETY EQUIPMENT

1. STEEL HELMETS AND BODY ARMOR. The steel helmet and body armor is prescribed for:

a. All personnel within 50 meters of firing points, lines or areas other than artillery firing battery positions during training or target practice with high explosive ammunition.

b. All personnel subject to small arms overhead fire, troops within the surface danger zone who are engaged in close air support training exercises/demonstrations, or combined arms exercises in which aircraft, artillery, mortar or rocket fire is used. See reference (a) for restrictions on overhead fire, except for artillery battery positions.

2. SCARLET STREAMERS AND RED FLASHING LANTERNS. A scarlet streamer during daylight hours or a red flashing light at night will be displayed whenever firing or other training involving an unusual hazard to non-participants is under taken. If the signal is removed during firing for any reason, training will cease immediately. The signal will be removed at the termination of the day's training. Streamers and red flashing lanterns may be obtained through supply channels, or on temporary loan from the Base Training Facilities Branch.

3. AIR PANELS. Aircraft recognition panels, either red or orange colored, will be displayed by artillery, mortar, tank, and anti-tank units while firing during daylight hours. Panels will be emplaced at least five minutes before firing commences and will be removed immediately after firing has been terminated. Panels will be displayed in the shape of an arrow to indicate to pilots the location of the firing

unit and the direction of fire. Temporary removal of panels is not required during fire suspensions lasting one hour or less.

4. RED GRENADES AND PYROTECHNICS. The color red is used as an emergency or danger signalling device only.

5. BINOCULARS. Binoculars will be used when necessary by forward observers and at all times by air sentries observing airspace and navigable waters.

406. WEAPONS AND AMMUNITION

1. ALTERATION OF AMMUNITION. The alteration of Class V supplies is not authorized without prior approval from this or higher headquarters.

2. TRACER AMMUNITION. Tracer ammunition will not be fired on 15 or 25 yard ranges impacting into earth barriers except on ranges K-317 and K-406.

3. BLANK AMMUNITION. Personnel will be instructed on the safety precautions for firing blank ammunition prior to the distribution of such ammunition.

4. PHOSPHORUS AND TOXIC AGENTS. No ordnance filled with phosphorus or toxic agents will be deliberately fired or dropped into the Intracoastal Waterway, lakes, bays or other bodies of water in or adjacent to Camp Lejeune.

5. FLAT TRAJECTORY/HIGH VELOCITY WEAPONS. Firing of flat trajectory/high velocity weapons above fifteen degrees must conform in all respects to appropriate danger zone diagrams. See reference (a) for restrictions. The proximity of major highways, adjacent ranges or maneuver areas demands that careful consideration be given to the range and impact point of flat trajectory projectiles to insure that they impact within established range fans.

6. MAGAZINE AREA. No projectile will be permitted to pass over magazine areas or field ammunition storage areas. Firing will not be permitted if any part of these areas fall within the surface danger zone.

7. FIELD STORAGE. Ammunition placed on ranges will be guarded at all times. Precautions will be taken to prevent accidental ignition or detonation by brush fires or by high frequency radio emissions. Ammunition will not be buried.

. MALFUNCTIONS AND ACCIDENTS. See reference (m).

407. WARNING SIGNS/RANGE GUARDS/AND TOWER GUARDS

1. Signs are placed at each range and training facility, and at entrances to each impact area. These signs will not be removed or disturbed in any way, nor shall equipment or material be placed against them. Personnel shall not pass beyond signs marked "HIGH EXPLOSIVE IMPACT AREA," "LIVE FIRING RANGE," "DANGER AREA," or similar signs without clearance from the Base Range Control Officer.
2. Range guards or appropriate barriers (with signs) will be posted to cover all normal approaches to hazardous areas. Personnel are cautioned to utilize existing roads and trails, and to comply with instructions posted at entrances to hazardous areas. See Appendix B for required range guard locations.
3. Sentries and/or barriers will be placed prior to firing at the commonly used approaches to the impact areas. Personnel entering hazardous areas or live firing ranges by remote or abandoned trails and roads will obtain clearance from the Base Range Control Duty Officer.
4. Range guards and tower guards should be competent personnel, preferably NCO's, who are familiar with range procedures and capable of taking immediate, positive action in emergency situations. Tower guards must be familiar with communication procedures and thoroughly briefed on their responsibilities.

408. RANGE AND SURVEY CONTROL MARKERS

1. RANGE MARKERS

a. LEFT FLANKS. The left flank of each firing range is marked by a white concrete monument. Left down range markers are 3' by 5' elevated sign boards painted white.

b. RIGHT FLANKS. The right flank of each firing range is marked by a red concrete monument. Right flank down range markers are elevated 3' by 5' sign boards painted white with a red diamond in the center.

c. The down range markers are not targets and will not be used as such. The trajectory of all missiles will pass between these markers.

2. SURVEY CONTROL MARKERS. See Appendix C.

409. FIRING RESTRICTIONS

1. OVERHEAD AND FLANKING FIRE. Detailed firing precautions for overhead and flanking fire are contained in reference (a). Firing over the heads of personnel by mortars or from moving tanks or other moving vehicles is prohibited.

2. FIRING ACROSS PUBLIC HIGHWAYS

a. MORTARS. Mortars normally are prohibited from firing across numbered or named highways within Camp Lejeune. Requests for firing from other than normal sites will be handled on an individual basis.

b. FIELD ARTILLERY. Field artillery (howitzers and guns) may be fired over highways within Camp Lejeune without closing the route. Responsibility for the safety of motorists, as well as others within the trajectory rests primarily with the officer in charge of firing.

3. ARTILLERY AND MORTARS

a. Artillery and mortar projectiles will be fired to impact within Impact Areas G-10, K-2 and N-1 only.

b. Normally, gun positions for artillery firing will be located south of State Highway #24 and west of State Highway #172 when impacting into G-10 and K-2, and east of Highway #172 when impacting into N-1. However, this does not preclude a unit firing over Highway #172 provided adequate safety is assured for personnel on this road during firing.

c. Unless the firing unit requests that the Area "D" portion (safe area) of its surface danger zone, as defined in Marine Corps Order P3570.1, be closed and the request is approved by this Headquarters, artillery fire passing overhead will place no restrictions of the use of terrain lying within the "D" area. See Reference (a).

d. See Camp Lejeune Special Map, 5th Ed., Sept. 25, 1976 for field firing positions and observation posts.

e. Weather data used in determining the blast forecast for the Camp Lejeune Area is obtained from the Weather Service Officer, MCAS (Helicopter), New River. This information will be provided by the Base Range Duty Officer prior to all artillery, mortar and CAS (Live) exercises.

4. FIRE AND MANEUVER RANGES

a. Fire and maneuver exercises will be conducted only on designated ranges. See Appendix B.

b. Range safety officers will be designated whenever fire and maneuver exercises are conducted.

c. A range safety officer will be located so that all personnel under his jurisdiction are within his observation at all times. He will be equipped with an appropriate signalling device to effect a cease fire in the event of danger or emergency. Firing exercises conducted during darkness will require strict control measures with appropriate signalling devices utilized.

d. The officer in charge of firing, the range safety officer and designated assistants will be thoroughly familiar with safety provisions of reference (a), which describes the criteria for flanking fire.

e. The officer in charge will orient all control personnel during daylight hours prior to engaging in night exercises on fire and maneuver ranges.

f. During fire and maneuver exercises, an adequate number of controllers will be assigned to insure that every man is positively controlled.

g. Lanes and limits of fire for each firing point will be marked on each fire and maneuver range. The officer in charge of firing will instruct firing personnel as to limits of fire, direction of fire, and the safety regulations for the range being used.

410. DEMOLITIONS

1. TRAINING. Normally, the use of high explosive demolitions will be confined to designated demolition ranges. However, requests for the use of demolitions in other training areas will receive consideration. See Scheduling Procedures in Section II. Demolitions used to simulate support fires and to provide realism in training, when authorized, will be limited to the use of 1/4 lb. blocks of TNT.

2. DISPOSAL OF UNSERVICEABLE AMMUNITION AND DUDS

a. Use of ranges for the disposal of dud and/or unserviceable ammunition must have the prior approval of the Range Control Duty Officer. Disposal of dud ammunition will normally be accomplished on the range where the dud is located. Authorized ranges for disposal of dud/unserviceable ammunition are as follows:

- (1) Impact Area G-10
- (2) Impact Area K-2
- (3) Impact Area N-1
- (4) EOD Site K-326
- (5) EOD Site G-4A

b. The maximum explosive limit, per detonation, for destruction of dud/unserviceable ammunition will be the amount authorized by the provisions of paragraph 402.4. Prior to all disposal operations, a special blast focus computation for the site on which the explosives are to be detonated will be requested from the MCAS (H) Weather Service Division. The request will be initiated by EOD to the Range Control Duty Officer. The maximum explosive limit established by reference (p), for ranges G-4A and K-326, will not be exceeded.

411. DUDS AND UNSERVICEABLE AMMUNITION

1. Duds will be reported immediately to the Range Control Duty Officer.
2. The Range Control Duty Officer will request destruction by the Explosive Ordnance Disposal Officer.
3. Duds will not be marked, handled, moved, or destroyed except by EOD officers/technicians or personnel under EOD supervision.
4. Unused or unserviceable ordnance will not be reported as duds but will be marked "Unused" or "Unserviceable" and returned to the Ammunition Supply Point by the using unit. Misfires and hang-fires will be cleared by the using unit, all safety pins, bands, clips, etc., replaced and the item declared unserviceable. If all safety devices cannot be replaced, place the item of ordnance in a safe area, notify the Base Range Control Duty Officer, and request EOD assistance.

5. Any person residing on this Base having knowledge of the whereabouts of souvenir ammunition, "duds", or abandoned ammunition, will report such facts to the Base Training Facilities Officer or the Base Provost Marshal.

6. See reference (m), SOP for ammunition and explosives.

412. AIR OPERATIONS

1. RESTRICTED AREAS R5306D and R5306E

a. Restricted Area R-5306D includes the airspace from mean sea level to 18,000 feet within the area from GC 03088 to 942475 to 850365 to 834383 to 770313 to 883254 to 923197 to starting point.

b. Restricted Area R-5306E includes the airspace from mean sea level to 18,000 feet within the area from GC 834383 to 819403 to 725333 to 770312 to starting point.

2. WARNING AREA W-122. That portion of Warning Area W-122 of concern to Camp Lejeune is the airspace over the Atlantic Ocean 30 miles in radius from a point three miles at sea off the Onslow Beach Bridge.

3. NEW RIVER CONTROL ZONE. The control zone at Marine Corps Air Station (H), New River is that area within a five (5) statute mile radius of Marine Corps Air Station (H), New River, and within two (2) miles either side of the 046 and 226 degree bearings from the New River Radio Beacon extending from the five (5) mile radius zone to eight (8) miles NE and SW of the Radio Beacon.

4. COORDINATION AND CONTROL

a. Forward Air Controller

(1) Any air operation involving aircraft live firing or bombing, close air support, paradrops or combined air-ground exercises requires positive control of aircraft by a forward air controller. The term forward air controller is used synonymously with officer in charge of firing regarding these safety regulations.

(2) Forward air controllers are required to report to the Range Control Duty Officer for the range check-out briefing normally given to officers in charge of firing.

(3) Positive communications are required from the forward air controller to Base Range Control. Dual communications are required if live firing or bombing is conducted. See paragraph 416 and paragraph 6 in individual ranges listed in Appendix B.

(4) When a Forward Air Controller (Airborne) is controlling live drops on BT-3 or G-10, a qualified Forward Air Controller, on the ground, will be in overall control of the exercise, and function as a safety officer. FAC's will report in person to the Range Control Office, Bldg. 1. prior to starting the exercise to check out the range and to receive range check out briefing and required equipment. No telephone or radio check outs will be permitted. FAC's will notify the Base Range Control Duty Officer immediately after the last aircraft has cleared the area so temporary fire suspensions, if any, may be lifted for ground units. The FAC will then proceed to the Range Control Office, Bldg, 1, to return equipment and check the range back in.

b. BASE RANGE CONTROL

(1) This section of Base Training Facilities Branch is responsible for coordinating and controlling training areas to insure safe use of facilities. This section maintains a commissioned officer communications watch during live firing, paradrop and air exercises in the Camp Lejeune complex.

(2) All fixed wing aircraft will contact Base Range Control (BLACKBURN, 325.0 UHF) after being passed off by the TACC.

(3) Rotary wing aircraft penetrating R-5306D and R-5306E will contact Base Range Control (BLACKBURN, 38.6 FM or 325.0 UHF).

5. BOMBARDMENT AND AERIAL GUNNERY

a. Bombing and Target Ranges BT-3 and G-10 are authorized for use as impact areas for aircraft ordnance. See regulations for BT-3 and G-10 in Appendix B.

b. Impact Area K-2 is not authorized for impacting aircraft ordnance.

c. Weather data used in determining the blast forecast for the Camp Lejeune area is obtained from the Weather Service Officer MCAS (Helicopter) New River daily. This information will be provided by the Base Range Duty Officer prior to aerial bombardment/gunnery (live) exercises.

6. CLOSE AIR SUPPORT (CAS) OPERATIONS. Training will be conducted at MCB, Camp Lejeune, N.C. to train participating FMF units in the effective employment of close air support. Live fire close air support operations will be conducted in accordance with the precedures set forth herein. Simulated CAS conducted in support of amphibious exercises and in support of units maneuvering within the Camp Lejeune complex is not restricted to the procedures set forth in this Agreement, but such simulated CAS operations will be coordinated through Base Range Control in accordance with normal Base Range Control regulations and specific effort will be made to avoid low flying aircraft east of the 96 N-S grid line.

a. OPERATIONS PROCEDURES. The following procedures will apply in regard to the conduct of all close air support operations involving ordnance delivery at Marine Corps Base Camp Lejeune, North Carolina.

(1) All fixed wing aircraft will maintain 1500 ft. AGL or above while in transit to or from Camp Lejeune target complex.

(2) All aircraft will avoid overflight of the Base magazine area directly west of the G-10 Impact area.

b. GOLF 10 CAS PROCEDURES

(1) POP UP ATTACKS. Riseley Pier is designated as the IP for pop up attacks on all targets within the G-10 impact area. Attacks will be conducted with a left offset, resulting in a final attack heading of 065 degrees, and a right turn off target to avoid overflying the 96 north-south grid line. On egress, continue the right turn to proceed directly to the Onslow Beach Bridge (Grid 916277). From this point aircraft may exit the area or return to the IP for another attack.

(2) RABFAC PROCEDURES. RABFAC missions may be flown on an attack heading 225 degrees with left traffic or 065 degrees with right traffic. Minimum altitude is 1500 ft. AGL. General loft attacks are restricted to the 225 degrees attack heading with a maximum of one bomb per run.

(3) RACETRACK DELIVERY PATTERN. Attack headings of 225 degrees with left turns or 065 degrees with right turns are authorized. Minimum pattern altitude is 500 Ft.

AGL. After completion of the mission, all aircraft shall exit to the south avoiding BT-3. Patterns will not be extended east of the 96 north-south line.

(4) F-3 PROCEDURES. The IP for demonstrations conducted at F-3 is the Browns Inlet. Aircraft shall utilize a right offset and a northerly final attack heading with a left turn off target. To exit this area or re-attack, aircraft shall continue the left turn off target until on a southerly heading.

c. BT-3 ORDNANCE DELIVERY PROCEDURES

(1) RACETRACK DELIVERY PATTERN. Aircraft can utilize either a left-hand pattern with an attack heading of 225 degrees MAG, or a right-hand pattern with an attack heading of 045 degrees MAG.

(2) POP UP ATTACK. During ingress from the IP to the target, the aircraft will depart Riseley Pier on a north-easterly heading so as to parallel the coastline and remain "feet wet." Plan the attack to establish a left offset, right tip-in and right recovery. Minimum altitude after departing the IP will be 500 ft. AGL.

7. LANDING AND PARADROP ZONES

a. Tactical Landing Zones. TLZ's must be formally scheduled. Unscheduled helicopter flights into TLZ's may be made only after the pilot receives permission from the Base Range Control Duty Officer. See Section II for scheduling procedures. See Appendix D for names and locations of TLZ's.

b. Administrative Landing Zones

(1) ALZ's are used for administrative support only. Tactical exercises involving the use of helicopters for personnel or cargo movement will not be conducted from ALZ's without permission from this Headquarters.

(2) Formal scheduling is not required; however, contact must be made with the Range Control Duty Officer prior to the use of an ALZ to ensure aircraft safety and ALZ availability.

(3) See Appendix D for ALZ designations and locations.

c. Paradrop Zones. Paradrop exercises are authorized within designated tactical landing zones. See Appendix D for names and locations. See Section II for scheduling procedures.

d. Landing Zone and Drop Zone Control. Whenever a TLZ is being used for multiple helo lifts or parachute operations a LZ/DZ control will be established in the zone and will operate within the following guidelines:

(1) Check-in with "Blackburn" at the commencement of operations and passively monitor "Blackburn" throughout the operation.

(2) Inform "Blackburn" of any periods when aircraft are not on station and whenever operations recommence.

(3) Inform "Blackburn" when operations are complete.

8. HELICOPTER EXTERNAL LOADS

a. Monitor range control net on 38.6 VHF Blackburn or 325.0 UHF.

b. Contact Range Control Duty Officer immediately in the event cargo is dropped accidentally, giving coordinates and type of cargo.

c. External lifts are not authorized in the following areas:

(1) Administrative areas.

(2) Administrative landing zones (except ALZ 15, Camp Geiger and ALZ-22).

(3) TLZ Sparrow.

9. AIRCRAFT MINIMUM ALTITUDES

a. Aircraft required to pass over the following areas will maintain a minimum altitude of 500 feet (AGL) at ground level.

(1) Base Magazine.

(2) Field ammunition storage points.

b. Overflights of K-2, G-10 and N-1 impact areas are prohibited during live firing exercises, unless the aircraft is actively involved in the firing exercises.

10. AERIAL OBSERVATION SCHOOL

a. Aerial observers conducting field artillery fire from aircraft into the G-10 impact area may continue to utilize the G-10 impact area while tanks are in the buffer zone under the following conditions:

(1) That the aerial observer maintains constant surveillance of the tanks.

(2) That the aerial observer does not fire at targets closer than 1500 meters from the interior edge of that section of the buffer zone through which the tanks are crossing.

(3) That the aerial observer calls in a checkfire to the battery or batteries for which he is observing at any time the tanks come within 500 meters of the gun-target line.

b. When aerial observers are conducting field artillery fire from aircraft they are required to have Range Safety Officer on OP-2 or OP-5.

c. When the AO School is conducting exercises and/or training on BT-3, Bear Creek and Onslow North Tower will be manned. The officer controlling the exercise will check out/ in BT-3 range - prior to and after use of - through the Range Control Officer, Bldg. 1. Upon termination of the exercise, the controlling officer will return all equipment to the Range Control Duty Officer, Bldg.1, and sign the range back in, within 24 hours.

11. ARTILLERY

a. ICM (Firecracker) rounds may be fired into the G-10 impact area only when the firing battery does not fire over any roads or tank trails which are open to traffic.

b. ICM rounds may be fired from LZ Penguin only when G-8 and G-9 are not occupied by personnel and when road guards are placed on the road (tank trail) leading through the LZ Penguin area at least 800 meters on either side of the battery position in order to prevent any traffic or personnel from crossing in front of the battery position.

12. COMMUNICATIONS. All helicopters and those fixed wing aircraft with FM capability will monitor the BLACKBURN net (38.60 MHz) at all times when airborne.

413. NAVIGABLE WATERS

1. ATLANTIC COAST SECTOR DANGER AREA See reference (i).

a. This area includes the waters of the Atlantic Ocean within a sector bounded on the north by a line bearing 105 degrees from a point at GS 9530, on the east and south by an arc of a circle having a radius of 25,000 yards centered at GC 918276, on the west by a line bearing 205 degrees from GC 881247, and on the northwest by the shore line within the danger area as defined by reference (o).

b. When firing or maneuvering in or over this sector during daylight hours scarlet streamers must be displayed on the Onslow Beach North Tower (933288) one hour prior to firing. Display red flashing lights instead of scarlet streamers during the hours between sunset and sunrise. Warning signals will be removed at the termination of the exercise.

2. NEW RIVER DANGER AREAS. Live firing ranges include all waters from the high water line within the below eight sectors as described in reference (n).

- a. Trap Bay Sector.
- b. Courthouse Bay Sector.
- c. Stone Bay Sector.
- d. Stone Creek Sector.
- e. Grey Point Sector.
- f. Farnell Bay Sector.
- g. Morgan Bay Sector.
- h. Jacksonville Sector.

3. INTRACOASTAL WATERWAY REGULATIONS

a. When firing into the N-1 Impact Area, range guards must be posted at Bear Creek Tower and Onslow Beach North Tower to warn of boat traffic in the Intracoastal Waterway.

b. Water traffic in the Intracoastal Waterway normally will not be interrupted. Firing will cease to allow vessels to transit the waterway, unless a temporary interruption or closure is in effect not to exceed one (1) hour.

c. When temporary interruptions or closures are in effect, firing units may be required to assist in manning guard vessels.

414. HAZARDOUS AREAS

1. SURFACE DANGER ZONE

a. The surface danger zone of each firing range is a hazardous area during all live firing exercises. Entry into

these areas by personnel normally is prohibited during firing. Care must be exercised to insure that no one advances in front of the firing line or line of advancing troops on fire and maneuver ranges.

b. There are exceptions to this regulation, including certain "safe areas" within the surface danger zone, as defined in reference (a). Another exception is the positioning of a range guard in defilade on range J-2 (See Appendix B).

2. HIGH EXPLOSIVE IMPACT AREAS

a. Permission to enter a high explosive impact area must be obtained from the Base Range Control Officer, and must be accompanied by EOD personnel. Overlay of Maneuver Areas, Impact Areas and Ranges. See reference (i).

b. The following are designated as high explosive impact areas.

(1) G-10 IMPACT AREA. That area bounded by GC 943361 to 941336 to 920341 to 907336 to 896361 to 943361.

(2) N-1 IMPACT AREA. Extends east from the junction of Gridline 94 and Onslow Beach along the beach line to Bear Creek Inlet, and then along Bear Creek to a point 400 yards north of the Intracoastal Waterway, and thence on a line 400 yards north of a parallel to the Intracoastal Waterway to Gridline 94. Aircraft delivered ordnance will impact on Brown's Island only.

(3) K-2 IMPACT AREA. That area bounded by GC 782332 to 794346, east to New River, south and west along the shoreline of New River and Stone Bay to 782332.

(4) HAND GRENADES RANGES. Before live hand grenade training begins, all personnel must be proficient in the safety precautions for handling, throwing, and disposing of live grenades and must have successfully completed grenade training with practice grenades. When a grenade fails to function, the officer in charge of firing will:

(a) Cease all grenade throwing

(b) Ensure all personnel remain under cover until dud has been cleared by EOD personnel.

(c) Notify Range Control Duty Officer of the dud hand grenade and request EOD assistance.

(d) Standby to render assistance to EOD personnel as required.

(e) Request permission from the Range Control Duty Officer to continue throwing hand grenades after dud has been cleared.

(f) Duds will not be marked, handled, moved or destroyed except by EOD officers/technicians or personnel under EOD supervision. A 30 minute wait period will be observed from the time of the report by Range Control prior to clearing a dud grenade.

(g) No live hand grenades will be handled or thrown after one hour prior to sunset.

(h) No down range movement on any grenade range is authorized unless accompanied by EOD personnel.

3. COMMON IMPACT AREAS

a. The surface danger zones of many ranges overlap, creating a common impact area, such as the F-Range and K-Range complexes.

b. Care must be exercised, particularly when other ranges sharing the common impact areas are being used, to insure that the area is safe before moving down range. See "Known Interference," paragraph 7 of each individual range in Appendix B.

4. MINEFIELD SITE. That portion of the area enclosed by a line connecting Grid Coordinates 936310 to 939306 to 943309 to 943313 is a hazardous area. No person will enter the confines of the outer fence. See reference (c).

5. CONTAMINANT OR HAZARDOUS WASTE SITE (CHEMICAL DUMP)

a. A site for the disposal of contaminants and hazardous waste is located in grid square 7728. This site is commonly referred to as a "Chemical Dump." and is marked with appropriate warning signs.

b. Entry into this site is prohibited without specific authorization of the Base Safety Director. See reference (d).

415. FOREST FIRE DANGER SEVERITY RATINGS

1. Fire danger classes, and their effect on the use of Training Areas/Ranges and Facilities, are listed below.

a. Classes I and II: No restrictions on authorized ranges. Normal safety precautions will be followed. A fire fighting detail composed of those taking part in the training will be organized for the purpose of combating any grass or brush fires which may occur.

b. Classes III: Fire fighting details will be doubled and kept on standby during the entire period of training. The use of any ranges and any devices will be at the discretion of the officer in charge of the using unit. Extreme caution shall be exercised in the use of all pyrotechnics.

c. Class IV: The use of all explosives and pyrotechnics is restricted to the G-10, N-1 and K-2 impact areas. Authorized aerial ordnance (except aircraft flares) may be used on range BT-3.

d. Classes IV and V: Only range BT-3 and the N-1 impact area may be used for authorized aerial ordnance except aircraft flares.

e. Use of Pyrotechnics in Off Base Training Areas. Pyrotechnics are not authorized for use in off base training areas when the forest fire severity rating is greater than Class II.

2. No open burning will be done without permission of the Base Forester, or the Base Fire Department, or as authorized and required for training purposes.

3. Smoking: When Fire Danger Class IV is reached, there will be no smoking in training areas unless the unit commander designates a spot where personnel may smoke. It will be the responsibility of this officer to assure himself that all smoking materials are put out in metal containers.

4. See reference (1), BO 11320.1_ (Fire Protection Plan).

416. COMMUNICATION CONTROL

1. GENERAL

a. Prior to commencing live firing, close air support operations, helo lifts of personnel or equipment, or demolitions training, the Officer in Charge of firing will establish communications with the Range Control Duty Officer. He will maintain communication with Base Range Control by MAG line and/or radio, as prescribed in Appendix B. Permission to begin the exercise will not be authorized until positive communications have been established.

b. CAUTION. If communications with Range Control fails, units will suspend operations immediately. The exercise will not resume until communications have been re-established, and authorization to resume operations is obtained from the Range Control Duty Officer.

c. DUAL COMMUNICATIONS REQUIREMENTS. All units firing weapons with projectiles impacting within the N-1 Impact Area as directed in Appendix B, or with maximum ordinates exceeding 150 feet, will maintain dual communications, radio and wire (dial telephone) between the actual firing position and Base Range Control. Should one means fail, the officer in charge of firing will notify Range Control at once by using the other communications media.

d. Helicopters must monitor Base Range Control net (BLACKBURN, 38.6 VHF or 325.0 UHF) when penetrating R5306D or R5306E.

2. UNIT RESPONSIBILITIES

a. The responsibility for proper communication with Base Range Control rests with the training unit.

b. Units will verify communications with Base Range Control at regular intervals, at least every half hour (30 min) throughout the firing period. The Base Range Control Duty Officer will be notified immediately upon securing from firing.

c. See Appendix B for communications requirements for each range.

3. COMMUNICATIONS

a. MAG LINES

(1) Many training facilities have a telephone line terminal which leads into the Base Control.

(2) All units are cautioned to inspect both telephone and terminal connections prior to requesting telephone service.

(3) Each MAG line is clearly labeled with a sign showing the proper terminals to be used.

(4) Emergency Procedures. Training units are authorized to tap in at any MAG line terminal for emergency communications.

b. Dial Telephone System

(1) Dial telephones located at certain ranges and facilities (See Appendix B) can reach any other number in the Camp Lejeune complex.

(2) To reach Base Range Control, dial any of the following numbers in the sequence listed:

- (a) Primary - 3064 (Range Control Duty Officer)
- (b) Alternate - 5803
- (c) Emergency - 5803/3064 (Scheduling NCO)
- (d) Emergency - 5803/3064/3920 (Training Facilities Branch)

4. RADIO COMMUNICATIONS

a. Authorized call sign and frequencies will be used. Range Control call sign is "BLACKBURN", the frequencies are 38.6 VHF and 325.0 UHF.

b. Units required to maintain dual communications will enter the Range Control radio net in order to establish the primary means of communication.

c. The officer in charge of firing will use his range number when calling the Range Control Duty Officer, as his call sign.

d. In the event of failure of the Range Control radio net while a unit is engaged in firing, the officer in charge of firing will:

(1) Contact Base Range Control by telephone and report the radio failure.

(2) Maintain telephone communication with Range Control while the radio is out of action.

(3) If telephone contact with Range Control cannot be established immediately after radio failure, firing will be suspended. No firing will be permitted until communications have been re-established and the Range Control Duty Officer has authorized the resumption of firing.

5. AIR/GROUND COMMUNICATIONS

a. The ground control unit for air/ground training or paradrop exercises will establish and maintain dual communications with Base Range Control.

b. In the event trouble is experienced in communications equipment, the officer in charge of firing or forward air controller may be permitted to commence training if one means of communication, either wire or radio has been established, provided on-site conditions indicate this means will not be interrupted.

c. If dual communications cannot be established within thirty minutes after permission has been granted to commence the exercise, the Range Control Duty Officer may suspend the training. Such suspension will remain in effect until dual communications have been established.

d. If one means of communications fails while the training is in progress, but communications through the alternate media remains effective, the training may continue.

e. Should both wire and radio communications to Range Control fail, the exercise will be suspended immediately by the officer in charge of firing. All aircraft will be directed to clear the area until authorized to resume operations.

f. MAG lines are positioned at or within walking distance of each TLZ for maximum assistance to training units in establishing communications with Base Range Control.

g. See paragraph 412 concerning air operations and paragraph 6 of Appendix B regarding live firing in the BT-3 complex (Brown's Island, N-1 Impact Area).

417. MISCELLANEOUS

1. BLANK FIRING AND PYROTECHNICS

a. All maneuver areas and many live fire ranges may be used for non-live firing exercises utilizing blank ammunition and non-injurious pyrotechnics unless otherwise prohibited as an exclusion or hazardous area. Blanks and pyrotechnics will not be buried.

b. Blanks and pyrotechnics, with the exception of red signals, may be used without permission from this Headquarters in all maneuver areas except:

- (1) Areas C, DA and DC
- (2) Sub-areas adjacent to public quarters or trailer parks.
- (3) Near Base Schools.
- (4) Areas specifically designated as exclusion, limited or training areas in a restricted category. See paragraph 204.2.
- (5) Heavily populated areas.

c. Red grenades and pyrotechnics are used as an emergency or danger signalling device and will not be used for training unless specifically authorized by the Assistant Chief of Staff, Training.

2. LIVE FIRE IN NON-DESIGNATED AREAS. Live fire exercises normally must be conducted on designated ranges listed in

Appendix B. In certain instances, permission may be granted to conduct live fire exercises or demonstrations in non-designated areas. See Section II for scheduling procedures.

3. USE OF NBC AGENTS

a. The use of smoke, flame, CS and standard agent simulants is authorized for training purposes at the discretion of the unit commander and subject to the restrictions contained in these regulations. No other agents may be used.

b. Standard simulants and munition available for training are: (See reference (q)).

- (1) Simulant Chemical Agent PEG 200
- (2) Training Set, Chemical Agent M72A1/M72A2
- (3) Blister Agent Simulant, Molasses Resedium
- (4) Training ammunition.
- (5) Atomic explosion simulator, DVC 39-1.
- (6) Atomic Simulator locally fabricated set (FM 30-101).
- (7) Artillery Simulator, M110.

c. Specific instructions are as follows:

(1) In all cases, inform Base Training Facilities of intended usage of NBC agents.

(2) The same cover and safety limits used during training with high explosive ammunition are required for protection against fragments and ricochets of chemical ammunition.

(3) Chemical agents will be employed only with the advice of a commissioned officer trained in the field behavior of such agents.

(4) CS will not be used until troops have completed the gas chamber exercise outlined in this order.

(5) Individuals having a P/3 profile because of respiratory or cardiac conditions will not be exposed to CS until examined by a medical officer who will determine whether or not the individual should be excused.

(6) Personnel filling or utilizing CS-1 munitions in bulk must be trained in care and handling of dispersers and bulk micro pulverized CS-1 and be equipped with rubber gloves, protective mask and hood, and rubber apron. Any residual agent should be emptied into a hole four feet deep and covered with earth; water used in cleaning equipment should be drained into a pit and covered with earth (TM 3-1040-215-12 refers). See reference (d) concerning disposal of contaminants or hazardous waste.

(7) In the event of gross accidental contamination of an individual with CS-1 particles, the body should be flushed with a copious amount of cool water, a five percent solution of sodium bisulfate (except in and around eyes) then used to remove the remainder, and finally the body again rinsed with water.

(8) No agent will be used in training or field exercises where it may drift downwind into civilian communities or areas occupied by nonparticipating military units or installations. It is recommended that CS be used no closer than 250 meters from vehicular traveled roads and highways.

(9) Because of the persistent nature of micro pulverized CS-1, care must be exercised in not contaminating areas and in protection of wildlife from effects.

(10) Smoke producing material will not be released when the wind velocity is greater than 20 miles per hour.

(11) All personnel undergoing training at the NBC Proficiency Range will have the M6 series hood and eyepiece outserts attached to the M17 series field protective mask.

SECTION V
SMALL ARMS REMOTE TARGETED SYSTEM (SARTS)

501. RANGES. The following ranges have been specifically configured for the SARTS target mechanism: F-4, K-402 and K-407. Any range, however, may be configured for SARTS target mechanisms with adequate advance notice. F-4 has electrical targets that may be augmented with SARTS target mechanisms.

502. SCHEDULING PROCEDURES

1. Ranges utilizing the SARTS target mechanisms will be scheduled in accordance with the procedures contained in paragraph 201.2 of this SOP.
2. Using units must specify in their requests that they desire the SARTS target mechanisms.
3. The normal SARTS target mechanism configuration for the particular range requested will be used unless otherwise specified by the requesting unit.
4. If a designated SARTS range is desired without reconfiguration it must be scheduled at least five working days in advance of the date desired.
5. If reconfiguration of an existing SARTS range or a new range is desired it must be scheduled at least 15 working days prior to desired date of use. The request should contain the type of training which will be done, the scheme of maneuver, and the weapon to be fired. The scheduling NCO will notify the Range Maintenance Officer immediately when reconfiguration of a range is requested. Upon approval of the request for reconfiguration of an existing range or a new range, the requesting unit's Range Safety Officer will meet with the Training Facilities Maintenance Officer (ext. 5211/3542) at least ten working days prior to the scheduled range date. This meeting will be used to establish a time when the installation of new pits may be accomplished. It will also enable the using unit's RSO and range maintenance personnel to have an on-site range inspection of the desired range and to fully discuss any problems which may exist.
6. Using units must verify any SARTS range commitment within three working days prior to the scheduled range use date. Time, date, range requested and provision of a working party must be confirmed. If range is not physically checked out from range control, by 1600 of the last working day prior to day of usage, the range will be automatically cancelled without notice. This requirement is necessary due to the time, equipment and men required to set up a SARTS range facility

7. The Range Control Office will be responsible for keeping the Range Maintenance Officer informed of all SARTS range scheduling.

8. The SARTS target mechanism configuration on a range will NOT be altered without the express permission of the Range Maintenance Officer.

503. USING UNITS RESPONSIBILITIES

1. The using unit's Range Safety Officer will check out the SARTS range from the Range Control Officer at Bldg. 1 following normal checkout procedures established in paragraph 403.8. The Range Control Officer will brief the RSO as to range safety, the responsibility of an RSO, the functions of the range operator and range control procedures. The Range Control Officer will also inform the RSO that he will be required to inspect the range and sign a DD 1348 provided by the range operator for SARTS mechanisms on his range. Upon completion of firing, the range operator will inspect the SARTS mechanisms and, if found satisfactory, will resign for them. If the SARTS target mechanisms are damaged, missing, etc. the range operator will immediately notify the Range Control Officer and the Range Maintenance Officer.

2. In the event of night firing or a usage period exceeding eight hours, the using unit will provide physical security for the SARTS target mechanisms when not in use.

3. Installation of the SARTS target mechanisms will be accomplished utilizing the Range Maintenance range operator and a working party from the using unit.

4. The using unit will provide a five-man working party on the range site two hours prior to its scheduled use. A normal range installation unit would consist of the following:

- a. One NCO.
- b. Four LCPL's or below.

This working party will be responsible for accomplishing the following:

(1) Unloading the target devices from their carrier and installing them in the target pits under the supervision of the Range Maintenance range operator.

(2) Performing any minor barrier work on the protective pit that the range operator deems necessary to fully protect the SARTS target mechanisms.

5. The using unit will be required to provide a ten-man working party to the Range Maintenance Section to assist in constructing target pits on a new range or a range that must be reconfigured. This working party will be made available at least two working days in advance of the scheduled firing date.

6. Pits dug and used on a new range or a range that must be reconfigured will be filled in by the using unit upon completion of firing and prior to being released from responsibility of the range.

7. Upon completion of firing, and after being released by the range operator, the RSO will immediately check the range back in at the Range Control Office following procedures established in paragraph 403.8 of this SOP.

8. Using units desiring augmentation of existing electrical targets with SARTS target mechanisms on ranges such as L-5 and F-4 should request this in the same manner as a range reconfiguration.

504. RANGE MAINTENANCE RESPONSIBILITIES

1. Meet on site with the unit's Range Safety Officer to discuss reconfiguration of ranges or new ranges where SARTS target mechanisms have been requested. Any potential problem areas will also be discussed.

2. Provide the range operator who is responsible for:

a. Insuring that all required SARTS target mechanisms and equipment are operable and in position prior to the scheduled time that the using unit is to commence firing/training.

b. Briefing the unit's Range Safety Officer on:

(1) Range safety to include any dangerous obstacles.

(2) SARTS target mechanisms equipment use and safety precautions.

(3) Emergency safety procedures.

(4) Discuss with the RSO the actuation of the targets in the scheme of maneuver.

c. Supervising SARTS target mechanism installation and any repairs needed on the target pits.

d. Insuring that SARTS target mechanism pits are adequate to protect devices.

e. Accompanying the unit's Range Safety Officer on an inspection of the SARTS range facility and obtaining from the RSO a signed DD 1348. The range operator will retain a copy.

f. Notifying the Range Control Officer and Range Maintenance Officer of any dispute, disagreement or controversy.

g. The Range Maintenance range operator will be the ONLY operator of SARTS target mechanisms.

h. Upon completion of the firing exercises the range operator and RSO will inspect the condition of all SARTS target mechanisms and the range site for proper police. If there are no discrepancies, the range operator will return the copy of the DD 1348 to the RSO. The DD 1348 will not be returned to the RSO if SARTS target mechanisms are damaged, missing, etc. The range operator will notify the Range Maintenance Officer and the Range Control Officer immediately if any controversy should arise, and no one will leave the range until the situation is resolved.

i. The Range Maintenance Section will maintain the protective pits that are permanent in nature for all SARTS ranges.

505. RETALIATORY DEVICES

1. Marine Corps Base is responsible for procurement of and funding for the blasting caps that are required for the retaliatory devices associated with the SARTS target mechanisms.

2. Only Number Six blasting caps may be used in conjunction with the retaliatory device. The standard USMC blasting caps will NOT be used with the retaliatory device.

3. The Range Maintenance Section will be responsible for installing the caps and operating the retaliatory device. Only authorized personnel are permitted to install caps with the retaliatory devices.

4. The Range Maintenance Officer/SNCO will notify the electronics technician prior to employment of the retaliatory device to insure that no maintenance work on the SARTS target system is being performed while the retaliatory device is being used. The Range Maintenance Officer/SNCO will also check with the scheduling NCO to insure that no adjacent ranges are using demolitions at the same time the retaliatory devices will be used.

5. The retaliatory device will not be installed and/or used during an electrical storm. The range operator will make this decision based on information obtained from the Range Maintenance Officer and the Range Control Officer.

506. DEMOLITION

1. Demolitions may be fired by use of SARTS retaliatory device on special request as per paragraph 502.

2. Using units must provide demolitions and combat engineer personnel to place explosives in order to fire electrically.

3. Range Maintenance Personnel will not be responsible for the placement of demolitions/explosives.

APPENDIX A
GLOSSARY OF TERMS

Administrative Area - An area assigned for administrative and logistical functions, such as housing, troop billets, offices, storage and maintenance areas. Normally, field training and live firing are not conducted in administrative areas.

Administrative Landing Zone (ALZ) - A predesignated, numbered helicopter landing zone which provides major commands ready access to air transportation and medical evacuation. Administrative landing zones are not normally authorized for training exercises.

Air Sentry - An individual designated by the officer in charge of firing to maintain surveillance of an assigned sector of airspace to warn of the approach of aircraft. In some cases air sentries also observe navigable waters for the approach of vessels.

Approach and Retirement Route - A predesignated air traffic lane for helicopters, generally used in air or air/ground training exercises. These routes may be utilized by the Base Range Control Duty Officer or a Helicopter Direction Center to route helicopter traffic around potentially dangerous areas.

Base - Marine Corps Base, Camp Lejeune.

Base Range Control - The section of Base Training Facilities Branch responsible for coordinating and controlling training areas to insure safe use of facilities. The section maintains a commissioned officer communications watch during live firing, paradrop and air exercises in the Camp Lejeune complex.

Base Range Control Duty Officer - The representative of the Base Range Control Officer on duty at Bldg. 1 during live firing, paradrop and air exercises.

Base Training Facilities Officer - The officer under the cognizance of the Base Assistant Chief of Staff, Training, who exercises control over the use of all Base Training Facilities to insure coordination and adherence to safety regulations. The Base Training Facilities Officer serves as the Base Range Control Officer.

Base Training Facilities Branch - The Base Agency responsible for scheduling and assigning of training facilities, air and seaspace, the maintenance and safe use of training facilities under its cognizance.

"BLACKBURN" - The communications call sign for Base Range Control (Radio: 38.6 VHF or 325.0 UHF; telephone 3064.)

Blast Focus Forecast- The refraction patterns of shock waves through the earth's atmosphere.

Buffer Zone - An area approximately 1,000 meters wide surrounding the high explosive impact areas, intended to provide an additional safety factor beyond that required by reference (a). Some tracked vehicle trails traverse portions of buffer zone. Extreme caution must be exercised to insure tracked vehicles are not in the buffer zone when rounds are impacting in the impact area adjacent to the buffer zone. Except for the authorized track vehicle trails in the buffer zones, entry into a Buffer Zone is permitted only for emergency reasons and with the express permission of this Headquarters. (Base Range Control Duty Officer).

Closure (of Intracoastal Waterway) - An authorized interruption of vessel traffic on the Intracoastal Waterway requiring advance permission of the U.S. Army District Corps of Engineer and publication of a Notice to Mariners.

Coast Pilot 4 - Regulations concerning Federally controlled waterways from Cape Henry to Key West, published by the U.S. Department of Commerce (Coast and Geodetic Survey) and which delegates to the Commanding General, Marine Corps Base, Camp Lejeune powers as enforcing agency for waters in the "New River, N.C. and vicinity; Marine Corps Firing Ranges."

Common Impact Area - The impact area created when the surface danger zones of concurrently used ranges overlap.

Control Zone - An airspace of defined dimensions designated by appropriate authority, usually the FAA. The zone extends upward from the ground or water and includes one or more airdromes, within which rules apply for the protection of air traffic.

Cookoff - The detonation of any or all of the explosive components of a round chambered in a hot weapon, caused by the heat of the weapon.

Danger Area - A sea or water space in which hazards may exist to mariners. The New River and Atlantic Coast Sectors areas are designated by Coast Pilot 4 as Danger Areas due to military training exercises conducted at Camp Lejeune.

Demolitions - Explosive charges, simulated or real, designed to add realism to training, or to destroy material or un-serviceable ammunition.

Drop Zone - A Tactical Landing Zone in which personnel or cargo paradrops are authorized.

Dual Communications - The establishing of two means of communications, usually radio backed up by telephone (either radio, MAG line or dial telephone), and required by the nature of the training exercise.

Dud - Ammunition of any caliber or weight which has been fired, placed, dropped or thrown, but which fails to function in the manner intended.

Exclusion Area - Areas in which training is not authorized. Bldg. SH-8 and Magazines SHE-12 and SHE-13 are designated as Exclusion Areas and the fenced in areas surrounding them are designated as Limited Areas.

Field Firing Position - See "Gun Position."

Field Training Facilities - Field training facilities are those areas designated for a specific type of training, normally not requiring the use of live ordnance. For example: Dry net training facilities and Combat Town are classified as field training facilities. Live firing will not be conducted in the immediate area of a field training facility without specific authorization.

Fire and Maneuver Range - Ranges on which troop movement and live firing may be conducted simultaneously. Simultaneous fire and movement may not be conducted except on ranges specifically designated.

Firing Area - See "Firing Point."

Firing Line - See "Firing Point."

Firing Notice - See "Weekly Firing Notice."

Firing Point - The location from which a weapon is fired at a target or impact area.

Flanking Fire - Live fire delivered against the flank of a target.

Flat Trajectory/High Velocity Weapons - Recoilless rifles, tank guns, artillery when firing line of sight and machine guns.

Food Plots - Food plots are prominently marked, cultivated sites positioned within various maneuver areas, maintained through joint efforts with the State of North Carolina, and intended to assist in the preservation of natural wildlife. Accordingly, units engaged in field training exercise will remain clear of established plots.

Forest Fire Danger Conditions - A restriction placed on training exercises due to the possibility of forest fire caused by humidity, wind velocity and temperature.

Forward Air Controller (FAC) - The officer designated to serve in the same capacity as an officer in charge of firing, but specifically for air operations.

FAC (A) - Forward Air Controller, Airborne.

Gun Position - Pre-selected positions from which artillery and mortars engage in high ordinate firing exercises. Permanent gun positions have been pre-selected in the Camp Lejeune complex. Units may under certain circumstances, select non-designated areas for use as gun positions.

Hangfire - A delay in the functioning of the propelling charge's explosive train. The duration of such delay is unpredictable and may extend from a split second to several minutes.

Hazardous Area - Areas made dangerous to personnel by live firing, existence of duds, or placing of mines or dangerous contaminants, and in which specific authorization from competent authority must be obtained before entering.

High Ordinate Firing - Firing of projectiles above an altitude of 500 feet, and requiring publication of Notice to Airmen (NOTAM'S).

High Explosive Impact Area - Impact areas specifically designated for impacting of all types of ordnance, such as G-10, K-2 and N-1 high explosive impact areas. These areas must not be confused with the danger area forward of live firing activity as defined in Reference (a).

Impact Area - The area or areas into which the fire of weapons is direct. It usually extends from the rear boundary of the target line or area to the maximum range of the weapon and ammunition fired. It is bounded on the flanks by the right and left limits of fire established in the surface danger area diagram for each type weapon.

Known Interference - Conditions affecting the safe conduct of live firing or training exercises.

Land Line - A metallic line between two telephones or between telephones and a switchboard.

Live Fire - Firing of weapons, demolitions or flame by shooting, placing, dropping or throwing a dangerous projectile or substance. Firing of some types of practice ammunition is considered live fire, such as the Grenade, 40mm, practice.

Limited Area - Bldg. SH-8 and Magazines SHE-12 and SHE-13 are designated as Exclusion Areas and the fenced in areas surrounding them are designated as Limited Areas.

Live Fire Range - A range on which specific authorization must be obtained to conduct live fire exercises, including the use of some types of practice ammunition.

Magneto Line (MAG Line) - A line from which field telephone equipment is operated from the field to a main switchboard in order to obtain dial capability.

Maneuver Area - Areas designated alphabetically in which field training exercises using blank ammunition, certain pyrotechnics and limited demolitions may be conducted with authorization. Live fire ranges and tactical landing zones normally are located within maneuver areas.

Misfire - A complete failure to fire which may be caused by a faulty firing mechanism or a defective element in the propelling charge.

Navigable Waters - Waters upon which navigation of vessels is possible, but not always permissible. Navigable waters in the Camp Lejeune complex are governed by regulations in Coast Pilot 4 which delineates areas in which vessels may or may not navigate and under what circumstances.

NBC - Nuclear, Biological, Chemical

NBC Agents - Devices, biological agents and chemicals which may cause damage, incapacity, injury, sickness and/or death.

NBC Simulants - Devices, chemicals or agents used as a training medium to reproduce the general effects of active NBC weapons without producing a toxic effect.

Notice to Airmen (NOTAM) - A message to aircraft pilots in a specific area warning of airspace restrictions caused by dangerous conditions such as high ordinate firing or scheduled air training exercises.

Notices to Mariners - A publication to mariners and vessels warning of conditions dangerous to navigation such as live firing or amphibious exercises.

Observation Post - A point from which impacting projectiles may be observed. The location of permanent observation posts at Camp Lejeune are contained in Appendix D.

Officer in Charge of Firing - The officers designated by the Commanding Officer of the training unit who assumes responsibility for all aspects of live fire, paradrop or air exercises. This term is used synonymously with forward air controller.

Overhead Fire - The firing of projectiles over the heads of personnel, or over areas in which the presence of personnel is suspected, either in training, bivouac or garrison.

Paradrop - The controlled aerial delivery by parachute of personnel or equipment.

Plant Account - A list of facilities, including training facilities, each of which has a monetary value and an inference of fiscal and maintenance responsibility.

Position Safety Officer - An officer assigned by the officer in charge to enforce all safety measures at a specific firing point, line or area.

Practice Range - A range upon which only specified types of practice ammunition may be fired.

Prohibited Area - An area in which training normally is not authorized.

Pyrotechnic - Non-injurious smoke or signals, either flares or grenades. White phosphorus is not considered a pyrotechnic for the purposes of this SOP.

Race Course - "M" Maneuver Areas.

Range - A training facility designated for live fire or practice firing of weapons, demolitions or flame, or fire and maneuver exercises.

Range Control - See "Base Range Control".

Range Control Duty Officer - See "Base Range Control Duty Officer."

Range Guard - An individual designated to maintain surveillance over an assigned locale to prohibit unauthorized entry into the surface danger area and to give the alarm in the event he detects such entry.

Range Operator - A member of Training Facilities Branch knowledgeable in a specific range and its equipment, assigned to assist the officer in charge of firing.

Range Safety Officer - An officer assigned by the officer in charge of firing to assist in enforcing all safety measures within the air/surface danger area.

Restricted Area - An airspace established by the Federal Aviation Agency in which there is a hazard, usually invisible, to flight. Examples are aerial gunnery and bombardment, guided missile, artillery, or other type firing. Permission must be granted to a flight before it may traverse a restricted area during periods when the area is in use. Restricted areas are effective during various times between various altitudes. Details as to boundaries, altitudes, time of use and controlling agencies are published by the Federal Aviation Agency and may also be found on Radio Facility Charts and Aeronautical Charts. Changes in a restricted area are published in Notices to Airmen (NOTAM's) and in the "Airman's Guide."

Restricted Category - A training area in a restricted category is one in which controls are imposed over troop and vehicle movements due to the proximity of quarters, schools and recreational facilities.

Surface Danger Zone - The area encompassing the entire range, as designated by the commanding officer of the installation, into which only authorized persons are permitted entry during conduct of a firing exercise. It is generally composed of a firing line or area, an impact area, and a ricochet area on either side of and beyond the outer end of the impact area. In some cases a buffer zone is included. The surface danger zone will vary with each weapon.

Survey Control Point - A permanent or semi-permanent concrete or brass marker placed to denote a topographical reference point.

Tactical Landing Zone - A predesignated helicopter landing zone, usually named after a bird, which provides air and ground units a training facility for helicopter operations.

Temporary Interruption (of the Intracoastal Waterway) - The blocking of traffic on the Intracoastal Waterway due to training exercises for periods of a few minutes to not more than one hour.

Toxic Agent - Poisonous agents which are capable of causing physiological injury.

Training Devices - An item designed exclusively for training purposes to demonstrate or illustrate a concept, or to provide a synthetic situation in which human skills or techniques are developed or improved. Specifically excluded is operational equipment which from time to time may be used for training purposes.

Training Facilities Branch - See "Base Training Facilities Branch".

Training Facility - A structure, range or area specifically designed for military training.

Unserviceable Ammunition - Ammunition beyond its life expectancy or which fails to respond as its designer intended. May be a single round or a complete ammunition lot.

Verona Loop - A complex of training facilities located west of New River.

Warning Area - An airspace similar to a restricted area, (hazard to flight or navigation), except that a warning area is located outside the continental limits of the United States. Penetration of a warning area during periods of activity may be extremely hazardous to the pilot, aircraft, and passenger. Warning areas are established to permit military maneuvers and firing in certain offshore areas as a necessary feature of combat training. Changes in warning areas are made in the same manner as changes to restricted areas.

Wet Bulb Globe Temperature (WBGT) - A rating of temperature and humidity as it affects personnel. Intensity of human exertion must be reduced as the WBGT reaches specific levels.

APPENDIX B
INDIVIDUAL RANGE REGULATIONS

1. RANGE. A-1
2. LOCATION. GS 7844
3. DESCRIPTION
 - a. Pistol range.
 - b. Ten manually operated targets with firing lines at 15, 25 and 50 yards.
 - c. Ten manually operated targets with firing lines at 50 yards.
4. AUTHORIZED FIRING
 - a. Weapons - Pistols and revolvers
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 788441
Azimuth: 165°
 - b. Left Flank Coordinates: 790441
Azimuth: 148°
6. COMMUNICATIONS
 - a. Dial telephone (6254) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. Water traffic from Northeast Creek and New River.
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL. Officer in Charge of firing and one range guard.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Post range guard near firing line to give timely warning to the officer in charge of firing upon the approach of helicopters, watercraft or other hazards.

b. Prior to firing, the officer in charge of firing or his representative will request permission to commence fire by contacting Base Range Control Duty Officer (3064). The same number will be called upon securing of firing.

1. RANGE. B-12
2. LOCATION. GS 7444
3. DESCRIPTION
 - a. Rifle, shotgun and pistol range.
 - b. Ten manually operated targets. Firing line at 15 and 25 yards.
4. AUTHORIZED FIRING
 - a. Weapons - Cal. .22 rifle, pistols, shotguns.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 743449
Azimuth: 175°
 - b. Left Flank Coordinates: 744447
Azimuth: 170°
6. COMMUNICATIONS
 - a. Dial telephone on range 0758.
 - b. See Section IV.
7. KNOWN INTERFERENCE. BC East of Grid Line 74
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL. Officer in charge of firing/one range operator.
10. MEDICAL PERSONNEL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly scarlet streamers at firing line and on top of butts.
 - b. Prior to firing, the officer in charge of firing or his representative will request permission to commence fire by contacting Base Range Control Duty Officer (3064) The same number will be called upon securing of firing.

c. Recreational firing is authorized if scheduled with Base Range Control Officer.

d. Range will not open until 0900 each morning.

13

1. RANGE. B-14

2. LOCATION. GS 7342

3. DESCRIPTION

- a. Assault of a fortified position.
- b. Two earthen bunkers, 13 demolition pits.

4. AUTHORIZED FIRING

a. Weapons - Service rifle, M60 MG, M72 rocket launcher and M203.

b. Ammunition - Blanks, M73 rocket (subcaliber only), demolitions (1/4 lb blocks), and smoke grenades.

5. RANGE LIMITS

a. Right flank coordinates: 734423

Azimuth: 48° G

b. Left flank coordinates: 734424

6. COMMUNICATIONS

a. No phone.

b. See Section IV.

c. Dual communications to Base Range Control Office required.

7. KNOWN INTERFERENCE. Movement along surface approaches leading into impact area.

8. SAFETY EQUIPMENT

a. Scarlet streamer.

b. Install barricades at the back blast danger area and on the vehicular approaches to the impact area.

c. Fire extinguishers (chemical only).

d. Insure that "Danger-Impact Area" signs are posted at all normal surface approaches to the impact area.

9. RANGE PERSONNEL. Officer in Charge of firing plus one
(1) Range Safety Officer.

10. MEDICAL. Corpsman with first aid equipment and medical safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Two (2) range safety officers required. One moves with the maneuver element. One is responsible for the overall safety of the range.

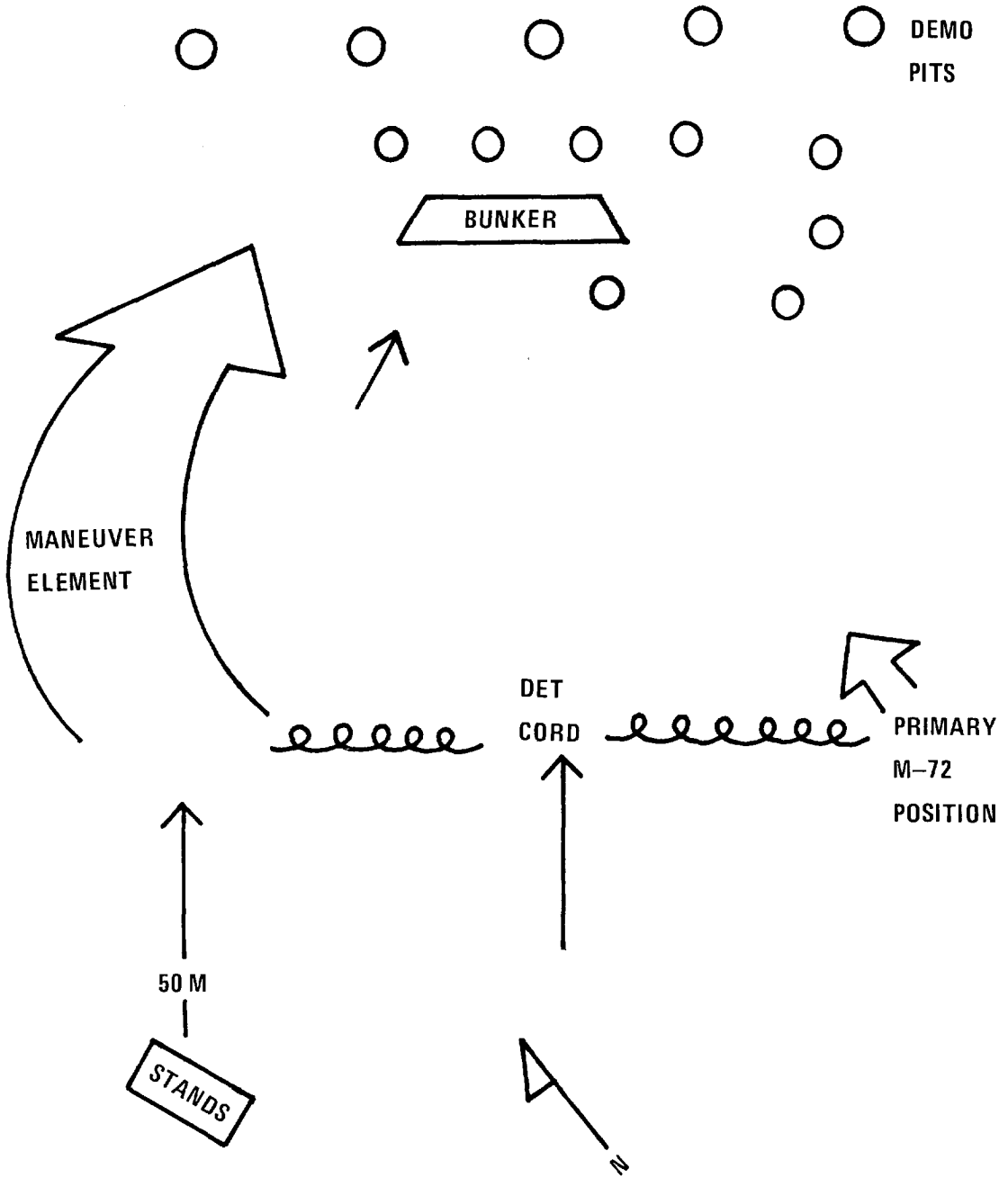
b. Scarlet range flag at tower.

c. Barricades for back blast area and on vehicular approaches to impact area.

d. The range safety officers will ensure that:

(1) The M72 Rocket Launcher will be fired only from the designated positions and only toward the earthen bunker and in accordance with existing regulations. Dangerous recochets can result if the practice rocket rounds hit the concrete bunkers.

(2) Safety officers will ensure that all charges have detonated prior to personnel entering the immediate area.



DEMO
PITS

BUNKER

MANEUVER
ELEMENT

DET
CORD

PRIMARY
M-72
POSITION

50 M

STANDS

N

1. RANGE. D-6
2. LOCATION. Building 451, Hadnot Point
3. DESCRIPTION
 - a. Indoor small bore.
 - b. Eight manually operated targets at 50 feet.
4. AUTHORIZED FIRING
 - a. Weapons - Cal. .22 rifles, pistols and revolvers.
 - b. Ammunition - .22 Cal. short, long and long rifle.
5. RANGE LIMITS. Not applicable
6. COMMUNICATIONS
 - a. Dial telephone available in Building 451 (3738).
 - b. See Section IV.
7. KNOWN INTERFERENCE. None
8. SAFETY EQUIPMENT. None
9. RANGE PERSONNEL. Officer in charge of firing.
10. MEDICAL. Officer in charge of firing insure medical assistance is immediately available from Base Dispensary, Building 15, phone 3211.
11. SPECIAL INSTRUCTIONS
 - a. Recreational firing is authorized when formally scheduled. See Section II.
 - b. Officers in charge of firing may accomplish range check in/out by telephone to Range Control Duty Officer at 3064. Check in/out is required for recreational firing. In case of emergency or accident, notify Range Control or, if no answer, the Base Staff Duty Officer, phone 2528/2527.

1. RANGE. D-9
2. LOCATION. GS 8539
3. DESCRIPTION
 - a. Recreational skeet range.
 - b. Four electrically operated skeet ranges and one electrically operated trap range.
4. AUTHORIZED FIRING
 - a. Weapons - Shotguns, gauges 12 through 410.
 - b. Ammunition - Shot, size 7 1/2, 8 or 9 standard or reduced loads.

WARNING: Magnum loads of any size and shot sizes heavier than 7 1/2 are prohibited.
5. RANGE LIMITS. Not applicable.
6. COMMUNICATIONS
 - a. Dial telephone (3889) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE
 - a. Troops in maneuver area DB.
 - b. TLZ Sparrow.
8. SAFETY EQUIPMENT. Scarlet streamer.
9. RANGE PERSONNEL. Officer in charge of firing.
10. MEDICAL. Officer in charge of firing may obtain medical assistance from Base Dispensary, Building 15, phone 3211.
11. SPECIAL INSTRUCTIONS
 - a. Range check out/in will be accomplished at Base Special Services.
 - b. Troops engaged in training exercises in Maneuver area DB will remain outside the impact area of this range during scheduled range operation as published in the Weekly Firing Notice.

c. Scheduled helicopter operations at TLZ Sparrow have priority over recreational use of this range.

1. RANGE. D-27
2. LOCATION. GS 8736
3. DESCRIPTION
 - a. Assault of a fortified position.
 - b. Concrete pill boxes, double apron barbed wire fence.
4. AUTHORIZED FIRING
 - a. Weapons - Service rifles, M-72 Rocket Launchers M60 Machine guns, M-72 Rocket Launchers and M-202 multi shot and M203.
 - b. Ammunition - Blanks, M73 (sub caliber only), demolitions (1/4 lb blocks), smoke hand grenades.
5. RANGE LIMITS
 - a. Right flank coordinates: 879366
Azimuth: 270° G
 - b. Left flank coordinates: 879359
Azimuth: 270° G
6. COMMUNICATIONS
 - a. Dial telephone (1371) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. Troop movement in DC area.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Fire extinguishers. (Chemical only)
9. RANGE PERSONNEL
 - a. Officer in charge of firing and one range guard.
 - b. Range Safety Officers as required.

10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

14 a. Fly scarlet streamers at firing line and at Main Service Road entrance at all times while range is in operation.

b. Maintain road guard at junction of entrance road and Main Service Road while firing.

c. Firing of M72 rocket launcher (practice), M-202 Multi-shot may take place in any direction providing the surface danger area does not include the spectator stands, the Main Service Road, Sneads Ferry Road or the Magazine Area.

1. RANGE. D-29
2. LOCATION. GS 8338
3. DESCRIPTION
 - a. Rifle, pistol and shotgun range.
 - b. Fifty fixed rifle targets at 15 yards and sixteen manually operated pistol targets at 15 and 25 yards. Standard rifle and pistol targets will be provided by Training Facilities. Using units provide C Course targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, pistols, revolvers and shotguns.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 839382
Azimuth: 261° G
 - b. Left Flank Coordinates: 839381
Azimuth: 260° G
6. COMMUNICATIONS
 - a. Dial telephone (2002) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE
 - a. Waterborne traffic on New River.
 - b. Helicopter traffic between MCAS (H) and Camp Lejeune.
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. Training Facilities Branch provides on site range operator.

10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Base Range Control insures that scarlet streamers are flown from the easterly shore of New River at coordinates 821393 and 855356 from one hour prior to firing until termination. Officer in charge of firing will raise and lower scarlet streamers at the firing line prior to firing until termination.

b. The officer in charge of firing will post a range guard in the range tower prior to firing to give warning when boats or aircraft approach the danger zone.

1. RANGE. D-30
2. LOCATION. GS 8536
3. DESCRIPTION
 - a. Rifle and pistol range.
 - b. Forty-six rifle targets at 15 yards and fifteen manually operated pistol targets with firing lines at 15 and 25 yards. Standard rifle and pistol targets will be provided by Training Facilities. Using units provide C Course targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, pistols and revolvers.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 850367
Azimuth: 215° G
 - b. Left Flank Coordinates: 851367
Azimuth: 215° G
6. COMMUNICATIONS
 - a. Dial telephone (2009) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE
 - a. Waterborne traffic in New River.
 - b. Helicopter traffic between MCAS (H) and Camp Lejeune.
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL
 - a. Officer in charge of firing and one range guard.
 - b. Training Facilities Branch provides on-site range operator.

10. MEDICAL. Corpsman with first aid equipment, military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. The officer in charge will raise and lower scarlet streamers from the flagpole prior to firing until termination.

b. The officer in charge of firing will post a range guard in the range tower prior to firing to give warning when boats or aircraft approach the danger area.

1. RANGE. E-1
2. LOCATION. GS 8824-8924
3. DESCRIPTION. Surface to Air Missile Range
4. AUTHORIZED FIRING. Surface to air missiles
5. RANGE LIMITS
 - a. Right Flank Coordinates: 880246
Azimuth: G-185°
 - b. Left Flank Coordinates: 899260
Azimuth: G-85°
6. COMMUNICATIONS
 - a. Dial telephone (telephone number 7425 located in Onslow South Tower).
 - b. Radio communications with Range Control in addition to dial telephone.
7. KNOWN INTERFERENCE
 - a. Waterborne traffic in the seaward approaches to Onslow Beach.
 - b. Transient aircraft and military aircraft involved in support missions of training being conducted at Camp Lejeune.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Binoculars.
 - c. Surveillance aircraft.
 - d. Surveillance radar.
9. RANGE PERSONNEL
 - a. Officer in charge of firing/range safety officer.
 - b. Senior missile director.

- c. Assistant missile director.
- d. Visual observers.
- e. Range guards.

10. MEDICAL. An Aid Station manned by a medical officer and corpsman. Military safety vehicle with driver will be available for evacuation purposes.

11. SPECIAL INSTRUCTIONS

a. Firing will be conducted in accordance with published standing operating procedures for missile firing at Onslow Beach/Range E-1.

b. Fly scarlet streamer during daylight firing prior to commencing fire until termination of firing at the following flag poles:

- (1) South Tower, Range E-1
- (2) Beach Road adjacent to Riseley Pier.
- (3) Flag pole located at U.S. Coast Guard Life Boat Station, Bogue Inlet, Swansboro, N.C.

c. Visual observers posted on South Tower will be equipped with binoculars.

d. Range guards posted at Beach Road and on beach adjacent to Riseley Pier will permit passage of authorized personnel only upon notification and approval of the officer in charge of firing.

e. Firing will cease if aircraft or surface craft enters the Missile Hazard Area.

1. RANGE F-2
2. LOCATION GS 9042
3. DESCRIPTION Field firing range.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, shotguns and pistols.
 - b. Ammunition - Service; and smoke hand grenades.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 906428
Azimuth: 205° G
 - b. Left Flank Coordinates: 907427
Azimuth: 179° G
6. COMMUNICATIONS
 - a. Dial telephone (2007) available on range.
 - b. See Section IV
7. KNOWN INTERFERENCE. Range F-4 and F-5
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL. Officer in charge of firing.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. The down-range segment is within a surface danger zone. Do not advance further than 900 meters from the firing line when F-4 or F-5 are firing.
 - b. No firing is permitted if troops are maneuvering on ranges F-4 or F-5.
 - c. Fly scarlet streamers at entrance road from highway 24 and on left flank at exit road to Range F-5 at all times while range is in operation.

d. Maintain range guards at entrance from Highway 24 and on left flank at road leading to Range F-5 while firing.

15 e. This range is designated to teach basic individuals, fire team and squad control.

f. Vehicle movement down-range is restricted to existing roads.

1. RANGE F-3
2. LOCATION GS 9337
3. DESCRIPTION
 - a. Field firing range.
 - b. Stationary tank hulls and other targets provided by unit.
4. AUTHORIZED FIRING
 - a. Weapons - Service rifles, M-60 machine guns, shotguns, pistols and M72 rocket launchers.
 - b. Ammunition - Service, M73 rocket (sub caliber only), and 1/8-1/4 lb TNT.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 939380
Azimuth: 295° G
 - b. Left Flank Coordinates: 938378
Azimuth: 286° G
6. COMMUNICATIONS
 - a. Dial telephone (2001) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. None
8. SAFETY EQUIPMENT. Scarlet Streamers.
9. RANGE PERSONNEL. Officer in charge of firing and two range guards.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. The down-range segment is within a common impact area. Do not advance further than 2400 meters from the firing line without clearance from the Range Control Duty Officer.

b. Maintain range guard at each flank entrance to the range while firing.

c. Fly scarlet streamers at each flank entrance at all times while range is in operation.

1. RANGE. F-4
2. LOCATION. GS 9142
3. DESCRIPTION
 - a. Individual, fire team and squad fire control range.
 - b. Ten electro-mechanical "pop-up" targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles automatic rifles, pistols and shotguns.
 - b. Ammunition - Service and smoke grenades.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 919425
Azimuth: 191° G
 - b. Left Flank Coordinates: 920425
Azimuth: 191° G
6. COMMUNICATIONS
 - a. Dial telephone (2007) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. Ranges F-2 and F-5.
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL
 - a. Officer in charge of firing and one range guard
 - b. One range operator is provided by Training Facilities Branch.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. The down-range segment is within a surface danger zone. Do not advance further than 900 meters from the firing line of departure. Do not move forward of the firing line if F-2 or F-5 are firing.

b. No firing is permitted if troops are maneuvering on Ranges F-2 or F-5.

c. Fly scarlet streamer at entrance road from Highway 24 (921428) at all times while range is in operation.

d. Maintain range guard at entrance road from Highway 24 (921428) while firing.

e. Install road blocks on Smith Road at 923413 and 913421.

f. Boundaries are marked by white posts in addition to standard down-range markers. Personnel will be cautious to remain within the boundaries at all times.

1. RANGE F-5
2. LOCATION GS 9042
3. DESCRIPTION
 - a. Field firing and battle sight training.
 - b. Two earthen bunkers, one tank and other targets as supplied by using unit.
 - c. Twenty SARTS target positions set up in grid pattern for machine gun use.
4. AUTHORIZED FIRING Weapons - Rifles, automatic rifles, M60 machine guns, shotguns and pistols.
5. COMMUNICATIONS
 - a. Dial telephone (2007) available on range.
 - b. See Section IV.
6. KNOWN INTERFERENCE. Ranges F-2 and F-4
7. SAFETY EQUIPMENT Scarlet streamer.
8. RANGE PERSONNEL Officer in charge of firing and two range guards.
9. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
10. SPECIAL INSTRUCTIONS
 - a. The down-range segment is within a surface danger zone. Do not advance further than 700 meters from the firing line. Remain on the firing line or no more than 25 meters in front of the mound when F-2 or F-4 are in use.
 - b. Fly scarlet streamer at entrance from Highway 24 at all times when range is in operation.
 - c. Display live firing signs on Highway 24 road shoulder at right and left range limits.

d. Maintain one range guard at entrance from highway 24 and one on east flank at road leading to Range F-2 while firing.

1. RANGE F-6
2. LOCATION GS 8738
3. DESCRIPTION Hand grenade range with five throwing pits.
4. AUTHORIZED FIRING HE hand grenades and practice hand grenades (in practice area only).
5. RANGE LIMITS
 - a. Right Flank Coordinates: 877381
Azimuth: 97° G
 - b. Left Flank Coordinates: 877382
Azimuth: 74° G
6. COMMUNICATIONS
 - a. Dial telephone (2011) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE None
8. SAFETY EQUIPMENT Scarlet streamers
9. RANGE PERSONNEL. Officer in charge of firing and one range guard.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly scarlet streamer at entrance road from Sneads Ferry Road at all times while range is in operation.
 - b. Maintain range guard at entrance road from Sneads Ferry Road while firing.
 - c. Insure that personnel not required to be in throwing pits are under cover of the troop shelter prior to authorizing live fire.
 - d. The Range Control Duty Officer will alert an Explosive Ordnance Disposal Team to be on standby while live fire exercises are in progress.

e. When a grenade fails to function, the officer in charge of firing will:

(1) Cease all grenade throwing.

(2) Assure all personnel remain under cover until the dud has been cleared by EOD personnel.

(3) Notify Range Control Duty Officer of the dud.

(4) After dud has been cleared, request permission from the Range Control Duty Officer to continue throwing grenades.

f. Duds will not be marked, handled, moved, or destroyed except by EOD officers/technicians. A 30 minute wait period will be observed by EOD personnel prior to clearing a dud grenade, after the dud grenade has been thrown.

g. That portion of the range forward of the throwing pits is a hazardous area. Entry is permitted only if accompanied by EOD personnel.

h. Practice grenades will not be used on the live grenade range. A practice grenade area is located on the entrance road from Sneads Ferry Road. Authority to use Range F-6 includes the practice grenade area.

i. Although there are five (5) throwing pits, the officer in charge of firing will insure that not more than one (1) grenade is thrown at a time.

j. Hand grenades will not be thrown down range after one hour before sunset.

1. RANGE F-9
2. LOCATION GS 8740
3. DESCRIPTION Military Police Range
4. AUTHORIZED FIRING
 - a. Pistol and Revolvers
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 875406
Azimuth: 118°
 - b. Left Flank Coordinates: 875406
Azimuth: 92°
6. COMMUNICATIONS
 - a. Dial telephone (2006) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE Maneuvering troops on Range F-12, or firing exercises on F-10.
8. SAFETY EQUIPMENT Scarlet streamers
9. RANGE PERSONNEL Officer in charge of firing and one range guard One range operator is provided by Training Facilities.
10. MEDICAL Corpsman and first aid equipment. Military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly scarlet streamer and maintain road guard at range entrance at all times while range is in operation.
 - b. This range will not be used while fire and maneuver exercises are in progress on F-12 or during firing exercises on F-10.
 - c. The down-range area is within a surface danger zone. Troops will remain clear of the berm and down range areas east of the berm.

1. RANGE F-10
2. LOCATION GS 8740
3. DESCRIPTION
 - a. Search and traverse machine gun and shotgun range.
 - b. Sixteen fixed targets at 500", 1000" and 75 meters.
4. AUTHORIZED FIRING
 - a. Weapons - Machine guns, shotguns, service rifle and auto rifle.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 875407
Azimuth: 112° G
 - b. Left Flank Coordinates: 875409
Azimuth: 81° G
6. COMMUNICATIONS
 - a. Dial telephone (2006) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. Maneuvering troops on Range F-12
8. SAFETY EQUIPMENT. Scarlet streamers
9. RANGE PERSONNEL
 - a. Officer in charge of firing and two range guards.
 - b. One range operator is provided by Training Facilities Branch.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly scarlet streamer at road junction GS 876412 at all times while range is in operation.
 - b. Maintain range guards at coordinates 875405 and 876412 while firing.
 - c. This range will not be used while fire and maneuver exercises are in progress on F-12.

1. RANGE F-11

2. LOCATION GS 8639

3. DESCRIPTION

a. Rifle and pistol range.

b. Fifteen manually operated pistol targets at 15, 25 and 50 yards and twenty-two fixed fire targets at 15 yards. Standard targets will be furnished by Training Facilities. Using units provide C Course targets.

4. AUTHORIZED FIRING

a. Weapons - Rifles (.22 Cal., .30 Cal., 5.56mm and 7.62mm), pistols, shotguns and revolvers.

b. Ammunition - Service.

5. RANGE LIMITS

a. Right Flank Coordinates: 869393

Azimuth: 83° G

b. Left Flank Coordinates: 869394

Azimuth: 83° G

6. COMMUNICATIONS

a. Dial telephone (2005) available on range.

b. See Section IV.

7. KNOWN INTERFERENCE F-18 artillery sub-caliber range.

8. SAFETY EQUIPMENT. Scarlet streamer.

9. RANGE PERSONNEL

a. Officer in charge of firing.

b. Training Facilities Branch provides on-site range operator.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. On-site range operator flies scarlet streamer at right rear of firing line at all times while range is in operation.

b. Rifles will be fired on the left side of this range only.

1. RANGE F-12
2. LOCATION GS 8740
3. DESCRIPTION
 - a. Individual, fire team and squad assault range.
 - b. Twenty-four electro-mechanical "pop-up" targets, 3 bunkers, 3 tank hulls.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, M-60 machine guns.
 - b. Ammunition - Cal. 30, 5.56mm or 7.62mm, demolitions (1/4 lb. blocks).
5. RANGE LIMITS
 - a. Right Flank Coordinates: 874403
Azimuth: 113° G
 - b. Left Flank Coordinates: 874404
Azimuth: 91° G
6. COMMUNICATIONS
 - a. Dial telephone (2004) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE Range F-9, F-10 and artillery sub-caliber range must be closed when this range is used.
8. SAFETY EQUIPMENT Scarlet streamer.
9. RANGE PERSONNEL
 - a. Officer in charge of firing and one range guard.
 - b. One range operator is provided by Training Facilities Branch.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. This range is designed to teach advanced assault. It should be fired before Range L-5 and after Ranges F-3 and F-4.

b. Demolitions up to 1/4 pound TNT equivalent may be used to simulate artillery rounds upon approval of the Base Training Facilities Officer.

c. The Officer in charge of firing will insure that Ranges F-9 and F-10 are closed prior to ordering an advance by maneuvering elements on F-12.

d. Fly scarlet streamer on pole at 871405 while range is in operation.

e. Maintain road guard at road entrance to range (871405) while firing.

f. The down-range maneuver area is within a surface danger zone. Do not advance more than 900 meters in the fire and maneuver areas.

1. RANGE F-17
2. LOCATION GS 8838
3. DESCRIPTION. Four towers with debarking stations, nets and mike boat mock-ups.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, all organic weapons.
 - b. Ammunition - Blanks only.
5. RANGE LIMITS. FD Maneuver Area.
6. COMMUNICATIONS. Dial telephone (2011) available on range.
7. KNOWN INTERFERENCE None.
8. SAFETY EQUIPMENT
 - a. Scarlet streamer on flag pole at entrance.
 - b. Guard at gate.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. No live fire is authorized on this range. Blanks may be used at the discretion of the officer in charge.
 - b. Enter range from the Sneads Ferry Road entrance.

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1. RANGE F-18

2. LOCATION GS 8739

3. DESCRIPTION

a. Night Field firing range and artillery sub caliber range.

b. Twelve electro-mechanical "pop-up" targets, each illuminated by flashing yellow light. Targets are positioned at 50 yards, 75 yards and at 100 yards.

4. AUTHORIZED FIRING

a. Weapons - Rifles, automatic rifles.

b. 14.5 Sub caliber

c. Ammunition - Service.

5. RANGE LIMITS

a. Right Flank Coordinates: 871391

Azimuth: 75° G

b. Left Flank Coordinates: 871392

Azimuth: 68° G

6. COMMUNICATIONS

a. Dial telephone (2003) available on range.

b. See Section IV.

7. KNOWN INTERFERENCE F-9, F-10, F-11 and F-12 for Sub-caliber range.

8. SAFETY EQUIPMENT. Red flashing lights for night firing or scarlet streamers for daylight firing.

9. RANGE PERSONNEL

a. Officer in charge of firing and one range guard.

b. One range operator is provided by Training Facilities Branch.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

- a. No down-range movement is permitted, except for artillery sub-caliber firing.
- b. Fly scarlet streamer from flagpole during daylight hours and display red flashing light after sunset from flag pole at center entrance from Sneads Ferry Road while range is in operation.
- c. After sunset, install road blocks and red flashing lights on Main Service Road at 871392 and 871393 (North and South Flanks).
- d. Maintain range guard at center entrances near flag pole while firing.
- e. Both the right and left down-range markers will be illuminated while night training exercises are in progress.
- f. This range is designed for night use in teaching firing techniques at varying distances.
- g. Artillery sub-caliber range is used to train all forward observers, and fire directional center personnel in correct call for fire and coordination fire data procedures.

1. RANGE G-2
2. LOCATION GS 9032
3. DESCRIPTION Infiltration Range
4. AUTHORIZED FIRING
 - a. Weapons - Machine guns as prescribed in reference (a).
 - b. Ammunition - As prescribed by reference (a) and demolitions.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 905323
Azimuth: 15° G
 - b. Left Flank Coordinates: 904323
Azimuth: 10° G
6. COMMUNICATIONS
 - a. Dial telephone (5179) available on range.
 - b. Field phones from tower to machine gun positions.
 - c. See Section IV.
7. KNOWN INTERFERENCE. Tank trail running generally south-east to northwest from GC 909327 to GC 902337.
8. SAFETY EQUIPMENT Scarlet streamers.
9. RANGE PERSONNEL
 - a. Officer in charge of firing, machine gunners and tower guards.
 - b. Training Facilities Branch will provide additional operators for the range.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. The using units will provide machine guns, ammunition and demolitions.
 - b. Training Facilities Branch will provide machine gun noise simulators for units not desiring to use live ammunition.

c. The prefiring inspection and calibration of fixed machine guns, use of weapons and explosives and the conduct of training will be in accordance with reference (a).

d. This range is operated by Training Facilities Branch. The officer in charge of firing will be guided by reference (a), MCO 3570.1, and the following:

(1) All troops of the using units will receive a lecture on the safety regulations governing the use of the range to include but not necessarily restricted to the following:

(a) No personnel will be allowed near or around the machine guns except the qualified range operators and officer in charge of firing (identified by colored headgear).

(b) All movement of troops will be supervised by and only on command of the officer in charge of firing or designated range safety officers.

(c) During the operation of the course no personnel will be allowed down range except those safety guards designated by the officer in charge of firing.

(2) Safety guards will be designated and posted in the flank towers provided. They will be guided but not necessarily restricted in the performance of their duties by the following:

(a) Relay all commands issued by the senior instructor regarding movement of troops.

(b) Observe the movement of all troops, paying particular attention to those troops approaching demolition pits from the rear.

(c) Wave a red flag when or if they observe anyone attempting to enter a demolition pit.

(d) Wave a red flag if they observe low rounds or other unsafe conditions.

(3) Instructions regarding the actual infiltration of the troops will be given as follows:

(a) Relays will take up position in front of numbers posted in the starting trench.

(b) Crawl out of the trench only on command of the chief instructor.

(c) Infiltrate up-range in accordance with proper crawl procedure.

(d) Infiltrate through double apron fence in accordance with proper procedures.

(e) Enter the last trench in accordance with prescribed methods.

(f) All troops will evacuate trench in the following manner:

1. Troops to the right of gun #2 will move out to the right.

2. Troops to the left of gun #2 will move out to the left.

(g) Upon completion of the course all troops will go immediately to the assembly point behind the tower.

(4) The officer in charge of firing will:

(a) Insure that each gun and insure that the traversing and depressing clamps are properly secured prior to movement of troops down range.

(b) Cause four or more bursts to be fired from each gun at the paper target provided, watching the impact of all rounds into the bullet trap. Impact should be well into the traps at all times. Insure the pattern of rounds on the target and insure an acceptable cone (approximately 15") exists; date and sign target in ink.

(c) Insure that each demolition pit prior to use to insure it is clear of any debris which may become a missile hazard.

(d) Insure that all charges are fired only from demolition pits.

(e) Insure that charges are not tamped.

(f) Personally inspect each pit from towers to insure that no one has inadvertently crawled into them.

(g) Insure that all explosives detonated on this range will be detonated only by the primary instructor.

(h) Insure communication exists between the tower and all guns.

(i) Insure that all safety guards have been properly instructed and posted.

(j) Insure that the firing panel, for the demonstrations is cleared after each platoon has completed the course.

(k) Allow no personnel down range until the firing and control tower are cleared of all personnel and insure that all personnel have returned from down range prior to anyone returning to the tower.

(l) That movement of troops is controlled by the chief instructor only, and that such movement is in accordance with paragraph 2.b above.

(m) Prior to and during any class, notify the chief instructor of any condition he believes to be unsafe.

(5) The Chief Instructor will:

(a) Be guided in the performance of his duties by these instructions, MCO 3570.1, BO P11102.1I and by the orders of the officer in charge of firing.

(b) Insure that each machine gun delivered for use on this range has been inspected by a qualified armorer immediately prior to use and after each 1000 rounds of firing. Gun barrels worn beyond a breech bore diameter of 0.304 are considered to be unsafe.

(c) Test fire in accordance with paragraph 6.b above in the morning, noon and again in the evening prior to dusk on all days the range is in operation.

(d) Insure that a copy of these instructions is properly and conspicuously posted on the range at all times.

1. RANGE G-4
2. LOCATION GS 9232
3. DESCRIPTION Demolition Range
4. AUTHORIZED FIRING Demolitions, Linear Rocket, M68A1 (Inert) charge and land mines not to exceed a charge of fifty pounds net TNT equivalent per shot.
5. RANGE LIMITS Grid square 9232
6. COMMUNICATIONS
 - a. Dial telephone (3986) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. None.
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL Officer in charge of firing and range guard.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly scarlet streamer on flag pole at entrance road east of road junction (912323).
 - b. Maintain range guard on entrance road east of road junction GS 9132 while firing.
 - c. Take appropriate precautions to guard against accidental detonation of electrical blasting caps by extraneous electricity.
 - d. Requests for detonation of charges in excess of 50 pounds may be submitted through channels to this Headquarters for evaluation.
 - e. Schedule through 2d Combat Engineer Battalion.

1. RANGE G-4A
2. LOCATION GS 9333
3. DESCRIPTION EOD Disposal Site.
4. AUTHORIZED FIRING. Authorized for use by 2d FSSG EOD Platoon for disposal of dud/unserviceable ammunition.
5. RANGE LIMIT GS 9333
6. COMMUNICATIONS See Section IV, paragraph 416.
7. KNOWN INTERFERENCE. Low-flying aircraft.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Warning siren.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman with military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly red flag and maintain barricades on all roads leading to the disposal site, while site is in use.
 - b. Sound ten second warning siren one minute prior to each shot.
 - c. The maximum explosive weight authorized by reference (q), is subject to provisions of paragraph 402.4 on blast focus prediction.

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1. RANGE. G-5

2. LOCATION GS 9432

3. DESCRIPTION

a. Mechanized tank range.

b. Mechanical moving targets and improvised down-range targets.

4. AUTHORIZED FIRING

a. Weapons - Tank guns, MG's, M14's and M-16 rifles may also be fired incidental to the firing of but not to the exclusion of the above weapons.

b. Ammunition. All types except high velocity projectiles exceeding 25,000 yards seaward.

5. RANGE LIMITS

a. Right Flank Coordinates: 941321

Azimuth: 139°

b. Left Flank Coordinates: 942322

Azimuth: 116°

6. COMMUNICATIONS

a. Dial telephones available on range: range building (7438); Bear Creek Tower (1740).

b. Internal radio communications will be established and maintained between the officer in charge of firing, safety towers and the firing line prior to and during firing.

c. The officer in charge of firing will maintain wire communications with Base Range Control during all firing.

d. See Section IV.

e. Dual communications required.

f. Radio frequency 49.75 MHz for towers, and Guard Safety Boats. Radio frequency 38.60 MHz for Range Control (BLACKBURN).

g. Five radios required.

7. KNOWN INTERFERENCE

a. Waterborne traffic in the Intracoastal Waterway and seaward approaches to Brown's Island.

b. Transient aircraft and military engaged in close air support missions on Brown's Island.

8. SAFETY EQUIPMENT

a. Scarlet streamers.

b. Red flashing lights.

c. Binoculars.

9. RANGE PERSONNEL

a. Officer in charge of firing.

b. Range safety officer. This officer will be in addition to the officer in charge of firing and position safety officers.

c. Position safety officers when required.

d. Four range guards.

e. Range operators are provided by Training Facilities Branch.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Prior to commencing fire until termination fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise at flagpoles and on top of the range towers.

(1) Bear Creek Tower.

(2) Onslow Beach North Tower.

(3) Main entrance to range G-5.

(4) Main entrance to range G-5A

(5) Flag pole located at U.S. Coast Guard Life Boat Station, Bogue Inlet, Swansboro, N.C.

b. Range guards posted on towers will be equipped with binoculars and radios. Sectors of observation are:

(1) Bear Creek Tower Guard: 65° M to 190° M

(2) Onslow Beach North Guard: 55° M to 270° M

c. Range guards will be instructed to give prompt notification to the officer in charge of firing before a vessel or aircraft penetrates the danger area as shown on the range fan overlay. Sentries will also be directed to raise and lower streamers/flashing lights at the required times.

d. The using unit will insure that an aerial search is made of the impact area, Intracoastal Waterway, marshes, dunes, and ocean areas within the surface danger area one hour prior to firing to insure that the areas are safe for firing. Training Facilities Branch will schedule a helicopter for the using unit.

e. Using units will post tower guards 1/2 hour prior to aerial search.

f. The Training Facilities Branch will provide guard boats to be positioned in the waterway at Bear Creek and Freeman Creek to control boat traffic during periods of firing.

g. Using units will register illumination rounds in the down-range sector of the waterway prior to commencing night firing. A supply of illumination rounds will be maintained at gun position for illumination of down-range sector if required while firing is in progress.

h. Firing will cease if streamers/flashing lights are lowered or extinguished for any reason.

i. Projectiles will not be fired to impact within 300 yards of the Intracoastal Waterway.

j. Contact relief of tower guards. After the first range sweep for the day has been completed and tower guards have been posted, other units authorized to use range G-5 during later periods of the same day are urged to effect contact reliefs of tower guards. Otherwise, subsequent range sweeps will be required prior to the resumption of fire.

k. Rounds containing explosive fillers will not be fired from the rear positions (closest to range tower) on the G-5 range. Explosive filler rounds will only be fired at Brown's Island.

l. Down-range movement is strictly prohibited unless accompanied by FOD personnel.

1. RANGE. G-5A
2. LOCATION. GS 9432
3. DESCRIPTION
 - a. Tank boresighting and zeroing range.
 - b. Improvised stationary targets down range.
4. AUTHORIZED FIRING
 - a. Weapons - Tank guns 90-105mm; mortars for illumination only on G-5 and G-7.
 - b. Ammunition - TPT and APT only. All others prohibited except for mortar illumination rounds.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 947326
Azimuth: 173° G
 - b. Left Flank Coordinates: 948327
Azimuth: 161° G
6. COMMUNICATIONS
 - a. Dial telephones available on range: Range building (7438); Bear Creek Tower (1740).
 - b. Internal radio communications will be established and maintained between the officer in charge of firing, safety towers and the firing line prior to and during firing.
 - c. The officer in charge of firing will maintain wire communications with Base Range Control during all firing.
 - d. See Section IV.
 - e. Dual communications required.
 - f. Radio frequency 49.75MHz for towers and guard safety boats. Radio frequency 38.60MHz for Range Control (BLACKBURN).
 - g. Five radios required.
7. KNOWN INTERFERENCE
 - a. Waterborne traffic in the Intracoastal Waterway and seaward approaches to Brown's Island.

b. Transient aircraft and military aircraft engaged in close air support missions on Brown's Island.

8. SAFETY EQUIPMENT

- a. Scarlet streamers.
- b. Red flashing lights.
- c. Binoculars.

9. RANGE PERSONNEL

- a. Officer in charge of firing.
- b. Range safety officer. This officer will be in addition to the officer in charge of firing and position safety officers.
- c. Position safety officers when required.
- d. Four range guards.
- e. Range operators and boat crew are provided by Training Facilities Branch.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Prior to commencing fire until termination fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise at flagpoles and on top of the range towers.

- (1) Bear Creek Tower.
- (2) Onslow Beach North Tower.
- (3) Main entrance to range G-5.
- (4) Main entrance to range G-5A.
- (5) Flag pole located at U.S. Coast Guard Life Boat Station, Bogue Inlet, Swansboro, N.C.

b. Range guards posted on towers will be equipped with binoculars and radios. Sectors of observation are:

- (1) Bear Creek Tower Guard: 65° M to 190° M
 - (2) Onslow Beach North Guard: 55° M to 270° M
- c. Range guards will be instructed to give prompt noti-

fication to the officer in charge of firing before a vessel or aircraft penetrates the danger area as shown on the range fan overlay. Sentries will also be directed to raise and lower streamers/flashing lights at the required times.

d. The using unit will insure that an aerial search is made of the impact area, Intracoastal Waterway, marshes, dunes, and ocean areas within the surface danger area one hour prior to firing to insure that the areas are safe for firing. Training Facilities Branch will schedule a helicopter for the using unit.

e. Using units will post tower guards 1/2 hour prior to aerial search.

f. The Training Facilities Branch will provide guard boats to be positioned in the Intracoastal Waterway at Bear Creek and Freeman Creek to control boat traffic during periods of firing.

g. Using units will register illumination rounds in the down-range sector of the waterway prior to commencing night firing. A supply of illumination rounds will be maintained at the gun position for illumination of down-range sector if required while firing is in progress.

h. Firing will cease if streamers/flashing lights are lowered or extinguished for any reason.

i. Projectiles will not be fired to impact within 300 yards of the Intracoastal Waterway.

j. Contact relief of tower guards. After the first range sweep for the day has been completed and tower guards have been posted, other units authorized to use range G-5A during later periods of the same day are urged to effect contact reliefs of tower guards. Otherwise, subsequent range sweeps will be required prior to the resumption of fire.

k. Range G-5 cannot be used while G-5A is being operated and vice versa.

l. When using the moving target device(s) only AP and APT rounds (shot rounds) will be used.

m. Down-range movement is strictly prohibited unless accompanied by EOD personnel.

1. RANGE G-6
2. LOCATION Grid 9432
3. DESCRIPTION Mechanized Sub-Caliber Tank Gun range, to be used in conjunction with the Scaled Range Target System (SRTS) and improved down range targets.
4. AUTHORIZED FIRING
 - a. Weapons - Machine Guns Caliber .50 and 7.62.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 944327
Azimuth: 347°
 - b. Left Flank Coordinates: 944326
Azimuth: 336°
6. COMMUNICATIONS
 - a. Dial telephones available on ranges G-5/G-5A (7438)
 - b. See Section IV.
7. KNOWN INTERFERENCE
 - a. GP-15
 - b. Explosive Ordnance Disposal Site G-4A GS 9333
8. SAFETY EQUIPMENT
 - a. Interrupter placed on .50 Cal. Machineguns
 - b. Interrupter placed on 7.62mm Machineguns
 - c. Scarlet range flares
9. RANGE PERSONNEL
 - a. Officer In Charge of firing on range.
 - b. Range guard will be placed at Grid 951335.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. All machineguns will be mechanically limited in elevation to 76 mils (3-4⁰) above the horizontal.

b. Do not advance down range into the buffer zone.

c. Fly scarlet streamer on flag pole adjacent to Highway 172 at Grid 944326.

d. Maintain Range Guards at entrance roads from Highway 172 (951335) while firing is in progress.

e. Gulf 6 will be checked out when G-5 is checked out.

f. EOD site G-4A must be available for emergency use on a continuous, 24 hour basis. In the event of such an emergency, EOD Operations will take precedence.

1. RANGE G-7

2. LOCATION GS 9534

3. DESCRIPTION

a. Mechanized tank gun range.

b. Mechanical moving target. Improvised stationary targets down range and on Brown's Island.

4. AUTHORIZED FIRING

a. Weapons - Tank guns, field artillery, machine guns, and recoilless rifles.

b. Ammunition - All types except high velocity projectiles exceeding 25,000 yards seaward.

c. Only AP and APT rounds may be used when firing at the moving target devices.

5. RANGE LIMITS

a. Right Flank Coordinates: 958342

Azimuth: 143°

b. Left Flank Coordinates: 959344

Azimuth: 140°

6. COMMUNICATIONS

a. Base telephone (3258) located in the range tower.

b. Internal land line communications and radio communications will be established and maintained between the officer in charge of firing, safety towers, road guards and the firing line prior to and during firing.

c. Dual communications required with Base Range Control duty officer.

d. See Section IV.

7. KNOWN INTERFERENCE. Waterborne traffic in the Intracoastal Waterway and seaward approaches to Brown's Island; transient aircraft; military aircraft while engaged in CAS missions on Brown's Island.

8. SAFETY EQUIPMENT

- a. Scarlet streamers.
- b. Red flashing lights.
- c. Binoculars.

9. RANGE PERSONNEL

- a. Officer in charge of firing and one range safety officer. An officer will be assigned duties as range safety officer. This officer will be in addition to the officer in charge of firing and position safety officers as required elsewhere.
- b. Three range guards who are qualified radio operators.
- c. Range operators are provided by Training Facilities Branch.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Prior to commencing fire until termination fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise at flagpoles and on top of the range towers.

(1) Bear Creek: 975339.

(2) Onslow Beach, North: 929284.

(3) Flag pole located at U.S. Coast Guard Life Boat Station, Bogue Inlet, Swansboro, N.C.

b. Fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise from flagpoles at main entrance to range from highway 172.

c. Maintain range guards at the following locations while firing:

(1) Bear Creek Tower.

(2) Onslow Beach North Tower.

(3) Main entrance to range G-7.

d. Range guards posted on towers will be equipped with binoculars and radio. Sectors of observation are:

(1) Bear Creek Tower Guard: 65° M to 190° M

(2) Onslow Beach North Guard: 55° M to 270° M

e. Range guards will be instructed to give prompt notification to the officer in charge of firing before a vessel or aircraft penetrates the danger area as shown on the range fan. Guards will also be directed to raise and lower streamers and flashing lights at the required time.

f. The Training Facilities Branch will provide guard boats to be positioned in the waterway at Bear Creek and Freeman Creek to control boat traffic during periods of firing.

g. Using units will register illumination rounds in the down-range sector of the waterway prior to commencing night firing. A supply of illumination rounds will be maintained at the gun position for illumination of down-range sector which is required while firing is in progress. Tank units may use searchlights both visible and IR mode.

h. Firing will cease if streamers or flashing lights are lowered or extinguished for any reason.

i. Projectiles will not be fired to impact within 300 yards of the Intracoastal Waterway.

j. The using unit will insure that an aerial search is made of the impact area, Intracoastal Waterway, marshes, dunes and ocean areas within the surface danger area prior to firing to insure that the areas are safe for firing. Training Facilities Branch will schedule a helicopter for the using unit.

k. Using units will post tower guard 1/2 hour prior to the aerial search being conducted.

l. Contact reliefs of tower guards. After the first range sweep for the day has been completed and tower guards have been posted, other units authorized to use range G-7 during later periods of the same day are urged to effect contact reliefs of tower guards. Otherwise, subsequent range sweeps will be required prior to the resumption of fire.

m. Down-range movement is strictly prohibited unless accompanied by EOD personnel.

1. RANGE G-8
2. LOCATION GS 9037
3. DESCRIPTION
 - a. M203 Grenade Launcher Range.
 - b. Vertical and point targets (used oil drums), bunkers, varying level window frames.
4. AUTHORIZED FIRING
 - a. Weapons - M203 Grenade Launcher.
 - b. Ammunition - 40mm, Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 901374.
Azimuth: 164° G
 - b. Left Flank Coordinates: 902374
Azimuth: 153° G
6. COMMUNICATIONS
 - a. Dial telephone (2013) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. None
8. SAFETY EQUIPMENT Scarlet streamer/flashing red light.
9. RANGE PERSONNEL Officer in charge of firing and one range guard.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. This is a fixed firing range. No down range movement is authorized.
 - b. No attempt will be made to mark duds. Upon completion of firing the officer in charge of firing will report the number and approximate location of all duds to Range

Control. A dud which is considered to be a hazard to further training by the officer in charge of firing will be reported immediately to Base Range Control. Unexploded practice rounds will be reported as duds.

c. Only EOD personnel will be allowed down-range of firing.

d. Personnel other than the officer in charge of firing and designated safety personnel not actively engaged in actual firing will remain to the rear of the firing line.

e. All unused ammunition will be returned to the issue point upon conclusion of the exercise.

f. Misfire: A misfire is defined as a complete failure to fire which may be caused by a faulty firing mechanism or a defective element in the propelling charge.

1. RANGE. G-9
2. LOCATION GS 9037
3. DESCRIPTION
 - a. M72, M202, LAAW and rifle projected hand grenade range.
 - b. Tank Hull targets.
4. AUTHORIZED FIRING
 - a. Weapons - M72, M202 rocket launchers, and service rifles.
 - b. Ammunition - LAAW, service and practice, rifle projected hand grenades and M202 Multi-shot flame round.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 903374
Azimuth: 171° G
 - b. Left Flank Coordinates: 904375
Azimuth: 155° G
6. COMMUNICATIONS
 - a. Dial telephone (2013) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. None.
8. SAFETY EQUIPMENT Scarlet streamer
9. RANGE PERSONNEL Officer in charge of firing and two range guards.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Personnel not actually engaged in firing, other than the officer in charge of firing and designated safety personnel, will remain to rear of firing line.
 - b. This is a fixed point firing range. No down-range movement is authorized.

c. Maintain range guards on entrance road on both flanks of firing line while firing.

d. Fly scarlet streamer on entrance road while range is in operation.

e. All unused ammunition will be returned to the issue point upon conclusion of the exercise.

f. Misfire: A misfire is defined as a complete failure to fire which may be caused by a faulty firing mechanism or a defective element in the propelling charge.

1. RANGE Bombing and Target Range G-10

2. LOCATION GS 8936 through 9535

3. DESCRIPTION

a. This range is commonly referred to as the G-10 Impact Area.

b. Bombing and Target Range (G-10) for aircraft and artillery utilizing improvised targets, generally vehicle hulls.

4. AUTHORIZED FIRING

a. Aircraft: All aircraft armament not exceeding net explosive weight of 250 pounds TNT equivalent subject to provisions of paragraph 402.4 on blast focus prediction.

b. See Section IV, paragraph 412 for CAS operations

c. Artillery: All types of ammunition.

d. Mortars may be used to mark targets (HE, illumination and WP).

e. TOW missile: Heat and practice.

5. RANGE LIMITS. That area bounded by GC 943361 to 941336 to 920341 to 907336 to 896361 to 943361. The range is bordered by a 1000 yard buffer zone.

6. COMMUNICATIONS

a. The officer in charge of firing or the forward air controller (ground) of air operations will maintain dual communications (radio and dial phone) with Base Range Control during all firing.

b. Maintain dual communications (dial phone and radio) between OP-2 and OP-5 and the forward aircraft control party or the artillery forward observer.

c. See Section IV, paragraph 416.

d. Dial telephones located at OP-2 (5296) and OP-5 (1431 - emergency phone located on Sneads Ferry Road).

7. KNOWN INTERFERENCE. Track vehicles using the tank trails in the G-10 Buffer Zone.

8. SAFETY EQUIPMENT Scarlet streamers or red flashing lights and binoculars.

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9. RANGE PERSONNEL

a. For air operations a forward air controller, who serves as officer in charge of firing, and a forward air control party (TACP).

b. For artillery, officer in charge of firing, range safety officer, position safety officers and forward observers as required.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver at all gun positions when firing artillery, mortars, or TOWS.

11. SPECIAL INSTRUCTIONS

a. General

(1) Prior to commencing fire until termination fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise at flagpoles and on top of the range towers. OP-2 (GC 914373), OP-5 (GC 895344) or OP-3 (GC 927368).

(2) Firing will cease if streamers or flashing lights are lowered or extinguished for any reason.

(3) The blast focus forecast for the firing date will determine whether firing will or will not be permitted and the maximum amount of explosive permitted. See Section IV of this order for blast focus discussion.

b. Air Operations, See Section IV para 402.4 of this order.

(1) A line from GC 943361 to 941336 to 920341 to 907336 to 896361 to 943361 is designated as a permanent bomblines beyond which aircraft ordnance may not be impacted.

(2) Close air support operations will be under the positive control of a forward air control party (FACP).

(3) Night Close Air Support missions may be conducted with or without illumination but visual contact will be maintained between FAC ground and aircraft delivering ordnance.

(4) Off-set radar bombing utilizing the RABFAC system only may be conducted in the G-10 Area. This must be conducted when the pilot has VFR capabilities and the FAC operating from OP-2 or OP-5.

(5) The forward air controller will be positioned in the vicinity of OP-2, OP-3 or OP-5.

(6) Forward Air Controller

(a) Any air operation involving aircraft live firing or bombing, close air support, paradrops or combined airground exercises requires positive control of aircraft by a forward air controller. The term forward air controller is used synonymously with officer in charge of firing regarding these safety regulations.

(b) Forward air controllers are required to report to the Range Control Duty Officer for the range check-out briefing normally given to officers in charge of firing.

(c) Positive communications are required from the forward air controller to Base Range Control. Dual communications are required if live firing or bombing is conducted. See paragraph 416 and individual range regulations listed in Appendix B.

c. Artillery: Field artillery units authorized to impact into the G-10 Impact Area must coordinate well in advance of the firing exercise with Base Range Control.

d. TOWS are authorized to fire from OP-5. Prior to firing the TOW missile the officer in charge of firing will insure the following safety precautions have been taken:

(1) Post a sentry to stop traffic at the junction of highway 172 and Lyman Road (grid coordinate 955368).

(2) Post a sentry to stop traffic at the junction of Lyman Road and Sneads Ferry Road (grid coordinate 872386).

1. RANGE. I-1
2. LOCATION. GS 8427
3. DESCRIPTION
 - a. Rifle and pistol range.
 - b. Sixteen fixed targets with firing points at 15 and 25 yards.
4. AUTHORIZED FIRING
 - a. Weapons - Cal .22 rifles, pistols, revolvers and shotguns.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 842275
Azimuth: 108° G
 - b. Left Flank Coordinates: 843277
Azimuth: 111° G
6. COMMUNICATIONS. Dial telephone (7328) located nearby at Combat Engineer School.
7. KNOWN INTERFERENCE
 - a. Water and airborne traffic in Traps Bay Sector of New River.
 - b. Helicopter operations in TLZ Bluebird.
 - c. Troops maneuvering in IC Area.
8. SAFETY EQUIPMENT
 - a. Scarlet streamer.
 - b. Binoculars.
9. RANGE PERSONNEL. Officer in charge of firing and one range guard.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Firing will be conducted only when visibility exists between the firing line and Cedar Point (852258).

b. Fly scarlet streamer prior to firing until termination.

c. Maintain range guard on tower while firing to warn officer in charge of firing of the approach of water or airborne traffic.

d. Range guard will be equipped with binoculars to observe the area from 45° clockwise to 220°.

e. Recreational firing is authorized only if formally scheduled. See Section II.

f. Officers in charge of firing may accomplish range check in/out by telephone to Range Control Duty Officer, phone 3064.

1. RANGE I-2
2. LOCATION. GC 845282
3. DESCRIPTION
 - a. Demolitions and land mines instruction range.
 - b. Improvised targets and mine areas.
4. AUTHORIZED FIRING Demolitions, linear rocket M68A1 (inert) and land mines not exceeding 50 pounds net TNT equivalent per shot.
5. RANGE LIMITS From GC 845282 with a firing Azimuth of 141° to a range of 2,000 yards and 1,000 yards each side of Azimuth.
6. COMMUNICATIONS
 - a. Dial telephone (7328) located nearby at Combat Engineer School.
 - b. See Section IV.
7. KNOWN INTERFERENCE
 - a. Low flying aircraft.
 - b. Water traffic.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Student safety equipment as prescribed by the Commanding Officer, Marine Corps Engineer School.
9. RANGE PERSONNEL An officer in charge of firing and one range guard, and such other range safety personnel as prescribed by the Commanding Officer, Marine Corps Engineer School.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly scarlet streamer at entrance road to range while firing.
 - b. Officer in charge must be able to visually verify that Traps Bay is clear prior to firing the Inert line charge, also take appropriate precautions to guard against accidental detonation of electric blasting caps by extraneous electricity.

c. This range is assigned to the Commanding Officer, Marine Corps Engineer School on a priority of use basis. Other units, after scheduling this range with Training Facilities Branch, contact the Commanding Officer, MCES for additional instructions.

d. Range check out/in may be accomplished by telephone to Range Control Duty Officer at 3064.

1. RANGE J-2
2. LOCATION GS 8230
3. DESCRIPTION
 - a. Battle sight.
 - b. Fixed target frames at 15 yards.
4. AUTHORIZED FIRING
 - a. Weapons - Service rifles , shotguns and pistols.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 827306
Azimuth: 323° G
 - b. Left Flank Coordinates: 826305
Azimuth: 309° G
6. COMMUNICATIONS
 - a. Dial telephone (7236) available on range.
 - b. See Section IV.
7. KNOWN INTERFERENCE. Water or airborne traffic in Grey Point Sector of New River.
8. SAFETY EQUIPMENT Scarlet streamers.
9. RANGE PERSONNEL Officer in charge of firing and one range guard.
10. MEDICAL. Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Prior to commencing fire until termination fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise at flagpoles and on top of the range towers.
 - b. Maintain range guard with radio or land line in defilade at the waters edge, (824314) while firing in order to warn the

Officer in Charge of Firing of the approach of water or aircraft traffic into the Surface Danger Zone. CAUTION: The range guard's position is within the surface danger zone. Sentries will be instructed to remain in defilade below the banks of New River until ordered out by the officer in charge of firing.

c. Targets will be provided by the using unit.

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1. RANGE K-211
 2. LOCATION GS 7835
 3. DESCRIPTION
 - a. M203 - Grenade Launcher Range
 - b. Vehicle hulls.
 4. AUTHORIZED FIRING
 - a. Weapons - M203 Grenade Launcher.
 - b. Ammunition - 40mm Service.
 5. RANGE LIMITS
 - a. Right Flank Coordinates: 784354
Azimuth: 149° G
 - b. Left Flank Coordinates: 784353
Azimuth: 149° G
 6. COMMUNICATIONS
 - a. Dial telephone (0752) available on range.
 - b. See Section IV.
 - c. Dual communications required.
 7. KNOWN INTERFERENCE Range 212
 8. SAFETY EQUIPMENT. Scarlet streamers/flashing red lights.
 9. RANGE PERSONNEL Officer in charge of firing.
 10. MEDICAL Medical corpsman and military safety vehicle with driver.
 11. SPECIAL INSTRUCTIONS
 - a. No down-range movement is permitted unless accompanied by EOD personnel.
 - b. Report the number and location of all duds, including unexploded practice rounds to the Range Duty Officer (3064) upon completion of firing.

1. RANGE K-212
2. LOCATION GS 7835
3. DESCRIPTION
 - a. Infiltration and individual movement range.
 - b. 32 electrically operated demolitions pits controlled from tower.
4. AUTHORIZED FIRING
 - a. Weapons - Machine guns simulated.
 - b. Ammunition - 1/4 lbs demolitions.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 780351
Azimuth: 133° G
 - b. Left Flank Coordinates: 781353
Azimuth: 140° G
6. COMMUNICATIONS
 - a. Dial telephone (0752) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. Range K-211 and Range K-402.
8. SAFETY EQUIPMENT. Scarlet streamers.
9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. One range operator is provided by Training Facilities Branch.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS

- a. Range must be checked out 24 hours prior to exercise.
- b. Using unit is responsible for requesting engineer support for emplacement of demolitions.

1. RANGE. K-301
2. LOCATION GS 7836
3. DESCRIPTION
 - a. M72, M202, LAAW firing range.
 - b. Tank and amtrac hulls.
4. AUTHORIZED FIRING
 - a. Weapons - M72, M202 rocket launchers and 60/81mm mortars.
 - b. Ammunition - LAAW, multi-shot, service and practice 60/81mm mortars (illumination only).
5. RANGE LIMITS
 - a. Right Flank Coordinates: 787360
Azimuth: 153° G
 - b. Left Flank Coordinates: 788361
Azimuth: 141° G
6. COMMUNICATIONS
 - a. Dial telephone (0852) available on range.
 - b. See Section IV.
 - c. Dual communications are required.
7. KNOWN INTERFERENCE None
8. SAFETY EQUIPMENT Scarlet streamer, red flashing light.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Personnel not engaged in firing shall remain in or to the rear of the bleachers.
 - b. Direct firing down range only.
 - c. Down-range movement is prohibited.

1. RANGE K-302
2. LOCATION GS 7935
3. DESCRIPTION
 - a. Battlesight and field firing range.
 - b. Point and area type targets. Targets at 1000 inches for battlesight zeroing.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, auto-rifles.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 792359
Azimuth: 187° G
 - b. Left Flank Coordinates: 793359
Azimuth: 170° G
6. COMMUNICATIONS
 - a. Dial telephone (0561) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE None
8. SAFETY EQUIPMENT Scarlet streamer.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS. Direct firing down range only is permitted.

1. RANGE K-303
2. LOCATION GS 7935
3. DESCRIPTION
 - a. Basic technique of fire and mortar field firing range.
 - b. Point and area targets.
4. AUTHORIZED FIRING
 - a. Weapons - Service rifles, auto-rifles, 60/81mm mortars.
 - b. Ammunition - Cal. .30, 7.62mm and 5.56mm service ammunition, 60/81mm, HE, WP and illumination and demolitions (1/4 lb. blocks).
5. RANGE LIMITS
 - a. Right Flank Coordinates: 796359
Azimuth: 181° G
 - b. Left Flank Coordinates: 797359
Azimuth: 178° G
6. COMMUNICATIONS
 - a. Dial telephone (0561) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE None
8. SAFETY EQUIPMENT Scarlet streamers or flashing red lights will be located on both ends of the firing line whenever firing is being conducted.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Direct firing down range only.
 - b. Using unit is responsible for requesting engineer support for emplacement of demolitions.
 - c. No down range movement unless accompanied by EOD personnel

1. RANGE K-305
2. LOCATION GS 7935
3. DESCRIPTION
 - a. Infantry Weapons Demonstration Range.
 - b. Tank and amtrac hulls at varying ranges from 300 to 1000 yards.
4. AUTHORIZED FIRING
 - a. Weapons - All infantry weapons except Cal. .50 machine gun, 106mm recoilless rifle, and hand grenade.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Right Flank Coordinates: 799359
Azimuth: 179° G
 - b. Left Flank Coordinates: 801359
Azimuth: 177° G
6. COMMUNICATIONS
 - a. Dial telephone (0661) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. None
8. SAFETY EQUIPMENT Scarlet streamers will be flown from range pole during daylight firing and red flashing lights from pole during night firing.
9. RANGE PERSONNEL Officer in charge of firing
10. MEDICAL. Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. When special demonstrations are conducted and firing azimuths increased, Mill Creek Road and Range K-309, K-315, K-319, K-321, K-322, K-323, K-325 and all 200 and 400 series ranges will be evacuated.

b. There will be no cross-range firing except when the FPF is conducted and only then on an azimuth which will provide a beaten zone within the authorized fan.

c. Insure that all personnel do not fire 5.56mm Cal. or 7.62mm at the tank located 300 meters down range centered.

d. Insure that the sights on 81mm/60mm mortars are checked with a gunner's quadrant.

e. Insure that the minimum ranges for weapons comply with the following:

(1) 60mm mortars - 300 meters.

(2) 81mm mortar - 500 meters.

f. Insure that the maximum range employed for any weapon does not exceed the limits of observation.

g. Inspect demo pits ensuring charges do not exceed specified size and that there is no debris or solid objects which could create a missile hazard.

h. Charges in the demo pits will not exceed 1/4 pound TNT.

i. Spectators not wearing steel helmets will be seated far back in the stands beneath the overhead cover.

j. When the Infantry Weapons Demonstration or the night FPF are to be conducted, the safety officer will report to the range one hour prior to scheduled starting time of the class in order that the weapons can be emplaced and test fired.

k. No down-range movement is permitted unless accompanied by EOD personnel.

l. Report all duds to the Range Control Duty Officer.
(3064)

m. If the duds present a hazard to personnel on the firing line, cease fire and request EOD assistance.

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1. RANGE K-309

2. LOCATION GS 8035

3. DESCRIPTION

- a. Machine gun range.

- b. "E" Type silhouette targets.

4. AUTHORIZED FIRING

- a. Weapons - Service rifles, M60 MG, shotguns and M72 rocket launcher.

- b. Ammunition - Service M73 rocket (sub caliber only), 60/81mm mortars (illumination only).

5. RANGE LIMITS

- a. Right Flank Coordinates: 805360

- Azimuth: 207° G

- b. Left Flank Coordinates: 806359

- Azimuth: 180° G

6. COMMUNICATIONS

- a. Dial telephone (0661) available on range.

- b. See Section IV.

- c. Dual communications required.

7. KNOWN INTERFERENCE Range K-305 during special demonstrations.

8. SAFETY EQUIPMENT Scarlet streamers will be flown from range pole during daylight firing and red flashing lights from pole during night firing.

9. RANGE PERSONNEL Officer in charge of firing.

10. MEDICAL Medical corpsman and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

- a. The safety officer will accompany each squad down range during fire/movement exercises.

b. The safety officer will be equipped with an appropriate signalling device to effect CEASE FIRE in the event of danger or emergency.

c. During fire and movement exercises, each fire team will be accompanied by a qualified SNCO.

d. Lanes and limits of fire for each firing point will be pointed out and supervised during the entire course of fire.

e. Direct fire down-range only.

f. Steel helmets will be worn by all personnel going down range.

1. RANGE K-315
2. LOCATION. GS 8075
3. DESCRIPTION
 - a. Combat Field Firing.
 - b. Twelve electro-mechanical "pop-up" targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles , auto-rifles, shotguns and pistols.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 808359
Azimuth: 188° G
 - b. Left Flank Coordinates: 809358
Azimuth: 168° G
6. COMMUNICATIONS
 - a. Dial telephone (0775) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE Range K-305 and K-309 when special demonstrations are being conducted.
8. SAFETY EQUIPMENT Scarlet streamers
9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. One operator is provided by Training Facilities Branch.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. No person will be allowed down range.
 - b. Range must be checked out 24 hours prior to exercise.

1. RANGE K-317
2. LOCATION GS 8135
3. DESCRIPTION
 - a. Close Combat Range.
 - b. Twelve electro-mechanical "pop-up" targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, auto-rifles, shotguns, and pistols.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 810358
Azimuth: 210° G
 - b. Left Flank Coordinates: 811358
Azimuth: 197° G
6. COMMUNICATIONS
 - a. Dial telephone (0775) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. Range K-305 when special demonstrations are being conducted.
8. SAFETY EQUIPMENT. Scarlet streamer.
9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. One range operator is provided by Training Facilities Branch.
10. MEDICAL. Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. No down-range movement is authorized.

b. A prescribed distance of five meters will be maintained on firing line.

c. Range must be checked out 24 hours prior to exercise.

1. RANGE K-319
2. LOCATION GS 8135
3. DESCRIPTION
 - a. Field Firing Range.
 - b. Type "E" and "F" and improvised targets.
4. AUTHORIZED FIRING
 - a. Weapons - M-60 machine guns, rifles, automatic rifles, shotguns and pistols.
 - b. Ammunition - 7.62mm and 5.56mm.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 813359
Azimuth: 177^o G
 - b. Left Flank Coordinates: 814358
Azimuth: 173^o G
6. COMMUNICATIONS
 - a. Dial telephone (0875) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE Range K-305 when special demonstrations are being conducted.
8. SAFETY EQUIPMENT Scarlet streamers.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS None

1. RANGE K-321
2. LOCATION GS 8135
3. DESCRIPTION
 - a. Transition range.
 - b. Eight electro-mechanical targets located at varied distances from a fixed firing line.
4. AUTHORIZED FIRING
 - a. Weapons - Service rifles, automatic rifles, 60mm and 81mm mortars (illumination only), shotguns and pistols.
 - b. Ammunition - 7.62mm and 5.56mm service ammunition, 60/81mm illumination only.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 818359
Azimuth: 226° G
 - b. Left Flank Coordinates: 819358
Azimuth: 222° G
6. COMMUNICATIONS
 - a. Dial telephone (0875) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. Range K-305 when special demonstrations are being conducted.
8. SAFETY EQUIPMENT Scarlet streamers will be flown from range pole during daylight firing and red flashing lights from pole during night firing.
9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. One range operator is provided by Training Facilities Branch.
10. MEDICAL Medical corpsman with military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

- a. No down-range movement is authorized.
- b. Range must be checked out 24 hours prior to exercise.

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1. RANGE K-322
 2. LOCATION GS 8135
 3. DESCRIPTION
 - a. Moving Realistic Target Range.
 - b. One moving target on fixed monorail.
 4. AUTHORIZED FIRING
 - a. Weapons - Rifles, pistols and shotguns.
 - b. Ammunition - Service.
 5. RANGE LIMITS
 - a. Right Flank Coordinates: 819356
Azimuth: 245^o G
 - b. Left Flank Coordinates: 820355
Azimuth: 215^o G
 6. COMMUNICATIONS
 - a. Dial telephone (0656) available on range.
 - b. See Section IV.
 - c. Dual communications required.
 7. KNOWN INTERFERENCE None
 8. SAFETY EQUIPMENT. Scarlet streamers.
 9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. One range operator is provided by Training Facilities Branch.
 10. MEDICAL Medical corpsman with military safety vehicle with driver.
 11. SPECIAL INSTRUCTIONS
 - a. The electrical power switch for this range will be locked in the "OFF" position at all times except when the range is in actual use.

- b. Automatic fire is not permitted.
- c. No down-range movement is authorized.
- d. Range must be checked out 24 hours prior to exercise.

1. RANGE K-323
2. LOCATION GS 8235
3. DESCRIPTION
 - a. M203 Grenade Firing Range.
 - b. Improvised targets located at 100 yards.
4. AUTHORIZED FIRING
 - a. Weapons - M203 grenade launcher.
 - b. Ammunition - 40mm Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 821356
Azimuth: 223° G
 - b. Left Flank Coordinates: 821355
Azimuth: 218° G
6. COMMUNICATIONS
 - a. Dial telephone (0656) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE K-305 and K-325 when special demonstrations are being conducted.
8. SAFETY EQUIPMENT. Scarlet streamer.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. No down-range movement is permitted unless accompanied by EOD personnel.
 - b. Report the number and location of all duds, including unexploded practice rounds, to the Base Range Duty Officer (phone 3064) upon completion of firing.

1. RANGE K-325
2. LOCATION GS 8235
3. DESCRIPTION
M202 and M72 (LAAW) Field Firing Range.
4. AUTHORIZED FIRING
 - a. Weapons - M72, M202 rocket launcher.
 - b. Ammunition - Service and practice.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 822355
Azimuth: 235° G
 - b. Left Flank Coordinates: 823354
Azimuth: 235° G
6. COMMUNICATIONS
 - a. Dial telephone (0556) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE. Range K-305 and K-323 during special demonstrations.
8. SAFETY EQUIPMENT Scarlet streamer.
9. RANGE PERSONNEL. Officer in charge of firing.
10. MEDICAL Medical corpsman with military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Minimum range is 200 meters.
 - b. Place barriers across road to insure that traffic does not enter the range danger area.
 - c. Insure all persons not engaged in firing are in the bleacher safety area.
 - d. No down-range movement is permitted unless accompanied by EOD personnel.

1. RANGE. K-326
2. LOCATION. GS 8136
3. DESCRIPTION EOD disposal site.
4. AUTHORIZED FIRING Authorized for use by Base EOD and MAG 29 EOD Teams for the disposal of unserviceable ammunition, dismantling and inerting or ordnance.
5. RANGE LIMITS GS 8136
6. COMMUNICATIONS See Section IV, paragraph 416.
7. KNOWN INTERFERENCE Low-flying aircraft and small crafts in Farnell Bay Sector.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Warning siren.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman with military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Fly red flag and maintain barricade at entrance to site from Rhodes Point Road (815360) while site is in use.
 - b. Sound ten second warning on siren one minute prior to shot.
 - c. The maximum explosive weight authorized by reference (q) is subject to provisions of paragraph 402.4 on blast focus prediction.

1. RANGE K-402
2. LOCATION GS 7734
3. DESCRIPTION
 - a. Fire and movement range.
 - b. Improvised targets
4. AUTHORIZED FIRING
 - a. Weapons - Rifle, auto-rifle, M72 rocket launchers, M-60 machine guns.
 - b. Ammunition - Service, M73 (sub caliber only), demolitions 1/4 lb blocks).
5. RANGE LIMITS
 - a. Right Flank Coordinates: 777348
Azimuth: 123° G
 - b. Left Flank Coordinates: 777349
Azimuth: 124° G
6. COMMUNICATIONS
 - a. Dial telephone (0855) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE Range K-305 and K-407 during special demonstrations.
8. SAFETY EQUIPMENT Scarlet streamers will be flown from range pole during daylight firing and red flashing lights from pole during night firing.
9. RANGE PERSONNEL Officer in charge of firing and range safety officer as required for fire and maneuver ranges.
10. MEDICAL Medical corpsman with military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Demolitions for simulated supporting fires are limited to 1/4 lb TNT/equivalent per charge.

b. No maneuver permitted when Range K-407 is in use.

c. The safety officer will be equipped with an appropriate signalling device to effect an immediate CEASE FIRE in the event of danger or emergency.

d. Lanes and limits of fire for each firing point will be pointed out and supervised during the entire course of fire.

e. Direct fire down-range only.

1. RANGE K-405
2. LOCATION GS 7734
3. DESCRIPTION Hand grenade range with six throwing pits.
4. AUTHORIZED FIRING. WP, HE Hand grenades and practice hand grenades (in practice area only).
5. RANGE LIMITS
 - a. Right Flank Coordinates: 775349
Azimuth: 246° G
 - b. Left Flank Coordinates: 775347
Azimuth: 240° G
6. COMMUNICATIONS
 - a. Dial phone (0666) on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE None
8. SAFETY EQUIPMENT Scarlet streamers
9. RANGE PERSONNEL Officer in charge of firing and one range guard.
10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. Insure that personnel not required to be in throwing pits are under cover of the troop shelter prior to authorizing live fire.
 - b. The Range Control Duty Officer will alert an EOD team to be on stand-by while live fire exercises are in progress.
 - c. When a grenade fails to function the officer in charge of firing will:
 - (1) Cease all grenade throwing.

(2) Assure all personnel remain under cover until the dud has been cleared by EOD personnel.

(3) Notify Range Control Duty Officer of the dud.

(4) After dud has been cleared, request permission from the Range Control Duty Officer to continue throwing grenades.

d. Duds will not be marked, handled, moved or destroyed except by EOD officers/technicians. A 30 minute wait period will be observed by EOD personnel prior to clearing a dud grenade, after the dud grenade has been thrown.

e. Practice grenades will not be used on the live grenade range. A practice grenade area is located on the entrance road from Sneads Ferry Road. Authority to use Range F-6 includes the practice grenade area.

f. Although there are six (6) throwing pits, the officer in charge of firing will insure that not more than one (1) grenade is thrown at a time.

g. Hand grenades will not be thrown down-range after one hour prior to sunset.

1. RANGE K-406A
2. LOCATION GS 7734
3. DESCRIPTION 1000 inch immovable targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, auto-rifles, shotguns and pistols.
 - b. Ammunition - Service
5. RANGE LIMITS
 - a. Left Flank Coordinates: 777346
Azimuth: 95° G
 - b. Right Flank Coordinates: 777343
Azimuth: 137° G
6. COMMUNICATIONS
 - a. Dial telephone (0755) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE
 - a. Range K-305 when special demonstrations are being conducted.
 - b. This range cannot be used when Range K-406B or K-407 is in use.
8. SAFETY EQUIPMENT Scarlet streamer.
9. RANGE PERSONNEL Officer in charge of firing
10. MEDICAL Medical corpsman with military safety vehicle with driver.

1. RANGE. K-406B
2. LOCATION GS 7734
3. DESCRIPTION
 - a. Demolition range.
 - b. Ten crimping booths.
4. AUTHORIZED FIRING Demolition charges not exceeding 1/4 lb. of TNT equivalent per shot. "Claymore mine."
5. RANGE LIMITS
 - a. Right Flank Coordinates: 777343
Azimuth: 137° G
 - b. Left Flank Coordinates: 777346
Azimuth: 95° G
6. COMMUNICATIONS
 - a. Dial telephone (0755) available on range.
 - b. See Section IV.
 - c. Dual communications required.
7. KNOWN INTERFERENCE
 - a. Range K-305 when special demonstrations are being held.
 - b. This range cannot be used when Range K-407 or K-406A is in use.
8. SAFETY EQUIPMENT Scarlet streamers.
9. RANGE PERSONNEL Officer in charge of firing.
10. MEDICAL Medical corpsman with military safety vehicle with driver.
11. SPECIAL INSTRUCTIONS
 - a. A demolition instructor will accompany each detail of students into the demolition pit during the placing of the demolitions.
 - b. No more than 16 students will be in demolition pit at any one time.

c. All misfires will be cleared and disposed of by the Primary Demolition Instructor.

d. Pits will be physically inspected by a safety officer who will ensure that they are clear of misfires prior to bringing troops into pits.

e. During the application phase all students will be under the direct control of an instructor or platoon commander at all times.

f. The M-18 claymore mine will be fired in strict accordance with the provisions of FM 5-34 and current TM.

1. RANGE K-407
2. LOCATION GS 7734
3. DESCRIPTION
 - a. Individual Quick Reaction Range.
 - b. SARTS targets, machine gun, artillery and demolitions simulators, moving targets individually controlled electronically.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles and pistols. No automatic fire.
 - b. Ammunition - Service.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 778341
Azimuth: 111° G
 - b. Left Flank Coordinates: 777346, 778343
Azimuth: 94° G
6. COMMUNICATIONS
 - a. Dial telephone (0855) available on range.
 - b. Dual communications required.
 - c. See Section IV.
7. KNOWN INTERFERENCE
 - a. Ranges K-212, K-402, K-406 and K-408 must not be in operation when range is being used.
 - b. Each phase must be completed before moving to another phase.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Warning siren.
9. RANGE PERSONNEL
 - a. Officer in charge of firing.

- b. Two road guards.
- c. Three (3) operators.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Range K-407 differs from other ranges because it has no fixed firing line. Individuals fire from varied positions at electronically activated (surprise) targets while following a prescribed course through the range. Range safety is complicated by a lack of visibility over the entire range and the inability of one person to supervise all phases of the range. Altering the configuration of the range to provide control and observation by one person would negate training effectiveness. Therefore, special safety instructions for this range have been established.

b. Personnel required for the operation of range K-407 are:

(1) Range operators assigned by Marine Corps Base Training Facilities who performs the following duties:

(a) Ensures that a copy of these instructions is conspicuously posted on the range at all times.

(b) Delivers a copy of these instructions to the designated range safety officer prior to briefing using unit.

(c) Briefs using unit on safety regulations, range layout and type equipment installed on the range.

(d) Activates targets and simulators.

(e) Prior to live firing ensure that two-way communications provided by using unit exists between the range control point and Marine Corps Base Range Control. An immediate cease fire shall be initiated in the event of a communications failure.

(2) Range safety officer and assistant range safety officer assigned by the using unit will carry out all normally assigned range safety officer duties and ensure that special safety instructions for range K-407 are complied with at all times.

(3) A minimum of two instructors/safety NCO's assigned by the using unit, perform the following duties:

(a) Control movement of each element through course, ensuring that the element remains intact and there is no rearward movement except by the designated return trail upon completion of the course.

(b) Ensure the element complies with range procedures and does not create a hazard.

(c) Order immediate cease fire if the safety siren is sounded or by sounding whistle in the event a dangerous situation arises or injury to personnel occurs.

(d) Notify range safety officer/range control point of any potentially dangerous situation not covered by instructions.

c. Safety instructions:

(1) The range safety officer, assistant range safety officer and instructors/safety NCO's will be equipped with a whistle.

(2) A firing element will consist of no more than four individuals.

(3) Firing elements will proceed through the course singly. No element will be cleared onto the range until the preceding element has cleared the range.

(4) Each element will be accompanied by at least one safety officer and one instructor/safety NCO.

(5) Only the point man of each element will load his weapon. All other members will carry ammunition in loaded magazines secured in pouches attached to their belts.

(6) The point man will take the target under fire upon contact. The other members of the element will not fire until they have come on line with the targets and have been given a fire command by the element leader.

(7) All movement will be forward (clockwise) through the course.

(8) The instructor/safety NCO will control pace, route and firing direction for the element.

(9) The control point radio will be monitored at all times.

(10) In case of emergency requiring an immediate cease fire, the using unit will be responsible for sounding the siren. The siren is located on a telephone pole adjacent to the range flag pole.

d. Refer to Section V for SARTS employment.

- 25
1. RANGE K-408
 2. LOCATION GS 7734
 3. DESCRIPTION
 - a. Close Combat Range.
 - b. Electro-mechanical "pop-up" targets.
 4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, shotguns and pistols.
 - b. Ammunition - Service.
 5. RANGE LIMITS
 - a. Right Flank Coordinates: 775339
Azimuth: 111° G
 - b. Left Flank Coordinates: 776341
Azimuth: 114° G
 6. COMMUNICATIONS
 - a. Dial telephone (0855) available on range.
 - b. See Section IV.
 - c. Dual communications required.
 7. KNOWN INTERFERENCE
 - a. Range K-305 when special demonstrations are being conducted.
 - b. This range cannot be used when Range K-407 is in use.
 8. SAFETY EQUIPMENT. Scarlet streamers.
 9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. One operator is provided by Training Facilities Branch.
 10. MEDICAL. Medical corpsman with military safety vehicle with driver.
 11. SPECIAL INSTRUCTIONS None

1. RANGE L-5
2. LOCATION GS 7330
3. DESCRIPTION
 - a. Combat Rifleman Range.
 - b. Electro-mechanical "pop-up" targets.
4. AUTHORIZED FIRING
 - a. Weapons - Rifles, automatic rifles, shotguns, and pistols.
 - b. Ammunition - Service (BALL); smoke grenades. CAUTION: Armor piercing ammunition will not be used on this range.
5. RANGE LIMITS
 - a. Right Flank Coordinates: 736309
Azimuth: 28° G
 - b. Left Flank Coordinates: 731311
Azimuth: 22° G
6. COMMUNICATIONS
 - a. Dial telephone (3518) available on range.
 - b. Internal land line communications between towers 1 and 2.
 - c. Dual communications required.
 - d. See Section IV.
7. KNOWN INTERFERENCE. Troop movement in maneuver sub-areas ME, MD, MF, LA, LB.
8. SAFETY EQUIPMENT
 - a. Scarlet streamers.
 - b. Siren.
9. RANGE PERSONNEL
 - a. Officer in charge of firing.
 - b. Position safety officers will be designated by the officer in charge of firing.

c. Range operators are provided by Training Facilities Branch.

10. MEDICAL Corpsman with first aid equipment and military safety vehicle with driver.

11. SPECIAL INSTRUCTIONS

a. Fly scarlet streamer from flagpole at range entrance from Dixon Road prior to firing until termination.

b. Insure that range gates at the following positions are secured, GC 727353, 752363, 765349, 729323.

c. Position range guards at entrance from Dixon Road and at trail entrance from Highway 17 (GS 723329) 250 yards north of Dixon Fire Tower prior to firing. The sentry at Dixon Tower trail will be instructed to block all traffic attempting to enter the trail.

d. Position road block on range road at entrance to Tower #1 to channel all incoming traffic directly to the line of departure.

e. Prior to commencement of live fire training, conduct a down range reconnaissance to the fire limit line to insure that the area is free of participating troops or trespassers.

f. Five minutes prior to firing sound two five-second warnings on the range siren to alert tower personnel and participants. Thereafter, the siren will be used only for the purpose of signalling a cease fire command.

g. CAUTION. Tower #2 is inside the range fan. Operating and control personnel will be positioned prior to live firing, and instructed to remain inside the armored control booth until authorized to leave.

h. A "fire-limit" line is placed across the direction of attack 300 meters down range from Tower #2. Live fire will be terminated prior to crossing the fire limit line.

i. This range is designed for use in teaching advanced tactics at the squad, platoon, and company level. It consists of three objectives within a fire and maneuver area approximately 850 meters in depth. Added realism is obtained through the use of ten machine gun simulators and fifteen artillery/mortar simulators.

j. Base Training Facilities Branch will install, service and maintain all training devices, controls, tower and range warning signs. In addition, Base Training Facilities Branch will position operators at Control Towers #1 and #2 for the purpose of operating training devices in such sequence as the officer in charge of firing may direct.

k. Training devices will not be used as targets for smoke grenades or practice rifles grenades.

l. Firing by an envelopment force is not permitted.

1. RANGE. Bombing and Target Range (BT-3)

2. LOCATION GS 9429 through 9734. Brown's Island, 34°38'N, 72°12'W; which is seven miles SW of Swansboro, N.C.

3. DESCRIPTION

a. This range is commonly referred to as the N-1 Impact Area and the Brown's Island Target complex.

b. Bombing and Target Range (BT-3) for aircraft and artillery utilizing improvised targets, generally vehicle hulls.

c. BT-3 is a ground weapons impact area for ranges G-5 and G-7.

d. Adjacent to the Intracoastal Waterway.

4. AUTHORIZED FIRING

a. Aircraft - All aircraft armament not exceeding net explosive weight of 250 pounds TNT equivalent.

b. See Section IV paragraph 412 for CAS operations.

c. Ground Weapons - All weapons and ammunition authorized for ranges G-5, G-5A and G-7.

d. Mortars may be used to mark targets. (HE, illumination and WP).

e. Artillery - All types of ammunition.

f. TLZ GOOSE is authorized aircraft rearming landing zone.

5. RANGE LIMITS. This range extends northeast from the junction of north/south gridline 94 at Onslow Beach, along the beach line to Bear Creek Inlet; north-northwest along Bear Creek to a point 400 yards northwest of the Intracoastal Waterway; west-southwest on a line 400 yards north of the parallel to Intracoastal Waterway to Freeman's Creek; then south to the point of origin. The range is bordered by a 1000 yard buffer zone on the north and west side. A 1000 yard no-fire zone extends inboard from Bear Creek.

6. COMMUNICATIONS

a. The following dial phones are available:

Brown's Tower (7252); Onslow North Tower (7441);
Bear Creek Tower (1742).

b. The officer in charge of firing or the forward air controller (ground or air operations will maintain dual communications (radio and wire) with Base Range Control during all firing.

c. Maintain dual communications (MAG line and radio) between Bear Creek and Onslow Beach North Towers and the forward air control party or the artillery forward observer.

d. See Section IV, paragraph 416.

7. KNOWN INTERFERENCE. Waterborne traffic in the Intra-coastal Waterway or seaward from Brown's Island to a maximum range of 25,000 yards and high angle and flat trajectory weapons firing from G-5 and G-7.

8. SAFETY EQUIPMENT

a. Scarlet streamers or red flashing lights.

b. Binoculars.

9. RANGE PERSONNEL

a. For air operations a forward air controller, who serves as officer in charge of firing, and a forward air control party (FACP).

b. Two range guards to man lookout towers.

c. For artillery, officer in charge of firing, range safety officer, position safety officers and forward observers as required.

10. MEDICAL. Corpsman with first aid equipment and military safety vehicle if firing artillery or mortars at the firing position.

11. SPECIAL INSTRUCTIONS

a. General

(1) Prior to commencing fire until termination fly scarlet streamer during daylight hours, display red flashing light from sunset until sunrise at flagpoles and on top of the range towers.

(2) Position range guards with radio and binoculars at least one half hour prior to the aerial search to serve as air/water sentries in Bear Creek and Onslow Beach North Towers, instructed to promptly notify the officer in charge of firing (or forward air controller) before a vessel or

aircraft not engaged in the exercise penetrates the surface danger zone. Sectors of observation are: Bear Creek Tower 65 miles to 190 miles and Onslow Beach North Tower 55 miles to 270 miles.

(3) Firing will cease if streamers or flashing lights are lowered or extinguished for any reason.

(4) Projectiles will not be fired to impact within 300 yards of the Intracoastal Waterway.

(5) The using unit will insure that an aerial search has been made of the target complex, Intracoastal Waterway, marshes, dunes and ocean areas within the surface danger zone one hour prior to firing to insure that the area is safe. The forward air controller may utilize aircraft as appropriate in conducting the aerial search immediately prior to aircraft firing exercises.

(6) Mortars and tanks may be fired from Brown's Tower mortar pit to mark targets. A range safety officer is required, as well as communications to tower guards, the officer in charge of firing and Base Range Control Duty Officer.

(7) The blast focus forecast for the firing date will determine whether firing will or will not be permitted and the maximum amount of explosive permitted. See Section IV for blast focus discussion, para 402.4.

b. AIR OPERATIONS See Section IV paragraph 412.

(1) A line 800 yards from the seaward shore of the Intracoastal Waterway is designated as a permanent bomblines, beyond which aircraft ordnance may not be impacted.

(2) Close air support operations will be under the positive control of a forward air control party (FACP).

(3) The forward air controller (ground), if employed will be positioned in the vicinity of or in Brown's Tower. If FAC (Airborne) is employed there is no requirement to have FAC at Brown's Tower.

(4) During night close air support operations, when weather conditions are less than 5000 feet ceiling and five miles visibility, or when ground level visibilities do not permit the range guards to visually observe waterborne traffic in the Intracoastal Waterway or seaward for 1000 yards, aircraft firing or bombing exercises will not be permitted without continuous lighting by flares or positioning of guard boats to ensure no vessels enter the surface danger zone.

(5) Off-set radar bombing utilizing the RABFAC system only may be conducted in the N-1 area. This must be conducted when the pilot has VFR capabilities and the FAC operated from Brown's Tower.

(6) The forward air controller will be positioned in the vicinity of or in Brown's Tower.

(7) Forward Air Controller:

(a) Any air operation involving aircraft live firing or bombing, close air support, paradrops or combined airground exercises requires positive control of aircraft by a forward air controller. The term forward air controller is used synonymously with officer in charge of firing regarding these safety regulations.

(b) Forward air controllers are required to report to the Range Control Duty Officer for the range check-out briefing normally given to officers in charge of firing.

(c) Positive communications are required from the forward air controller to Base Range Control. Dual communications are required if live firing or bombing is conducted.

(d) FAC, will notify the Base Range Control Duty Officer immediately after the last aircraft has cleared the area so that temporary fire suspension may be lifted for ground units if in effect.

c. ARTILLERY

(1) Field artillery units authorized to impact into the BT-3 complex must coordinate well in advance of the firing exercise with Base Range Control.

(2) Field artillery units may be authorized to deliver high angle ordnance into BT-3 while flat trajectory weapons are firing at either fixed or moving targets on G-5 or G-7.

(3) Normally, a Range Safety Officer will be positioned with the forward observers in the vicinity of Brown's Tower. If flat trajectory weapons are firing concurrently from G-5, G-5A or G-7, he and the forward observers will be in either Bear Creek Tower or Onslow Beach North Tower.

1. RANGE Base CS Chamber and NBC Training Trail.

2. LOCATION Buildings 934 and 935.

3. DESCRIPTION. The chamber consists of two buildings, Bldg. 934, administration; Bldg. 935, CS chamber; CBT training area behind Bldg. 935 plus storage area.

4. COMMUNICATIONS. Telephone 451-3518.

5. SAFETY REGULATIONS The following safety regulations will prevail at all times for personnel participating in CS chamber and NBC training trail operations.

a. Safety Officer. A warrant/commissioned officer, familiar with the contents of reference (p) and this order, will be responsible for the safe conduct of CS chamber and NBC training trail operations. The officer shall be designated as the safety officer. He will be responsible for accomplishment of the following functions prior to the exercise:

(1) Insure that all personnel have been medically screened prior to their participation in the CS chamber exercise.

(2) Insure that all first aid supplies and equipment are available prior to the commencement of training.

(3) Insure that a medical corpsman is available for casualty treatment and evacuation.

(4) Insure that a military vehicle is available for casualty evacuation.

(5) No privately owned vehicles except those of the range safety officer (RSO) and the CS chamber personnel will be allowed on the range. No classes will begin until this regulation has been complied with.

(6) Insure that the CS chamber is fired and recharged as required, by Base personnel; and operated as prescribed herein.

(7) Insure that each detail receives a safety lecture by Base personnel covering the general safety procedures for personnel.

(8) Insure that no individual who has entered the CS chamber rides in a motor vehicle cab with the driver after such exposure. Further insure that motor vehicle operators do not enter the CS chamber.

b. General Safety Procedures for Personnel The following safety regulations apply to all personnel participating in the exercise:

(1) Each individual will have his mask inspected for serviceability and proper fit as prescribed in TM 3-4240-258-14.

(2) Personnel will not be permitted within the confines of the CS chamber at any time prior to the chamber being fired.

(3) Running within the confines, or after exit of the CS chamber will not be permitted.

(4) Personnel will not congregate in groups, nor rub or flush their eyes with water after exiting the CS chamber.

(5) Upon return to quarters, personnel should delay showering for approximately four hours. Contaminated clothing should be rolled up and secured in a paper bag or plastic bag pending laundering. No personnel should operate a motor vehicle until they have showered and changed clothing.

(6) No one will remove any object or material of any type from the CS chamber and NBC Training Trail.

(7) CS agent in solid form will not be permitted to contact exposed skin, clothing or equipment of any individual.

6. RANGE PERSONNEL NCOIC of chamber and appropriate assistants for operation of the chamber and firing the gas will be furnished by Base Training Facilities Branch and using unit.

7. WEATHER. Inclement weather will necessitate the cancellation of the CS chamber exercise. A WBGT reading of 90° or higher will also necessitate termination of the CS chamber exercise.

8. SCHEDULING. Scheduling will be accomplished by the units contacting their respective G-3 who will contact the Base CS Chamber. Marine Corps Base units will schedule by calling the CS chamber and submitting a training request to the Training Facilities Officer, Training Facilities Branch, at least a minimum of ten working days in advance of date desired.

9. REQUIREMENTS

a. All personnel must be instructed relative to CS chamber procedures prior to arrival at the Base CS chamber.

b. Each individual will have a gas mask. There will be no exchanging of gas masks between individuals for sanitary reasons.

c. Groups utilizing the CS chamber and NBC Training Trails should have between a minimum of 40 personnel and a maximum of 250 personnel in the group. Advance approval from the NCOIC, CS chamber to conduct the exercise is required when these requirements cannot be met.

d. The unit safety officer will read, sign, and deliver the signed copy of Tab (A) to the NCOIC, Base CS Chamber on the day the exercise is conducted.

e. All units will call the CS Chamber (3518) and inform the NCOIC of the exact number of personnel utilizing the facility of scheduled date and time a minimum of one working day prior to use.

BASE NBC SECTION
Marine Corps Base
Camp Lejeune, North Carolina 28542

(Date)

Subj: Safety Officer, assigned duties

1. PRIOR TO CHAMBER EXERCISE

a. The safety officer will ensure that all personnel from his unit, that are present, are participating in the chamber exercise. Anyone not participating will leave the chamber area.

b. Safety officer will check with the NCOIC of the chamber to insure that water, a safety vehicle, a resuscitator and a corpsman are available.

c. The safety officer will attend all lectures given to his troops.

d. The safety officer will ensure that the senior NCO checks in with the NCOIC of the chamber for specific instructions on forming troops for the chamber exercise.

2. INSIDE THE CHAMBER

a. No grenades will be used inside the chamber.

b. Exits will be kept clear at all times.

c. No more than forty-five (45) troops will be inside the chamber at any one time.

d. The safety officer will not attempt to give instructions inside the chamber or interfere with the instructors in any way, UNLESS SAFETY REGULATIONS ARE VIOLATED.

e. Inclement weather (rain) forces cancellation of all classes.

(Safety Officer - Rank/Signature)

(Organization)

1. RANGE Rifle Range
2. LOCATION GS 7530 (Stone Creek Sector)
3. DESCRIPTION. Three rifle ranges with 200, 300 and 500 yard lines; 600 yard line on one of the ranges. Two outdoor pistol ranges, one indoor pistol range; an outdoor 1000 inch range.
4. AUTHORIZED FIRING Service rifles and pistols.
5. COMMUNICATIONS. Dial telephones on each range and throughout area.
6. KNOWN INTERFERENCE Small boat traffic in western end of Stone Bay.
7. SAFETY EQUIPMENT Scarlet streamer southeast corner of range area (764313); large danger sign northeast corner of range area (767330) and danger sign at mouth of Stone Creek (752320).
8. RANGE PERSONNEL Safety officer on each range and appropriate numbers of SNCO and enlisted personnel to conduct the Qualification/Requalification program.
9. MEDICAL Dispensary located at Rifle Range Detachment.
10. SPECIAL INSTRUCTIONS
 - a. The rifle/pistol ranges are cleared to fire any day without prior announcement to the civilian/military populace.
 - b. The ranges are cleared to fire only after the western portion of Stone Bay has been cleared of boats and the scarlet streamer raised.
 - c. Rifle/pistol matches are conducted by the Camp Lejeune Rifle and Pistol Club about nine times per year.
 - d. Recreational firing of the pistol is permitted on weekends and holidays. Military, active and retired are required to check in with the Area Officer of the Day prior to going to the range.

1. RANGE Area #5 Swimming Pool
2. LOCATION Building 540
3. DESCRIPTION The area #5 swimming pool consists of one building housing an enclosed swimming pool for training purposes.
4. AUTHORIZED. All units which desire to use area #5 pool for training.
5. COMMUNICATIONS. Telephone 451-2027
6. SAFETY REGULATIONS The following safety regulations will prevail at all times for personnel participating in swimming pool operations.

a. Safety Officer. A warrant/commissioned officer, or SNCO, familiar with the contents of reference (h) and this order, will be responsible for the safe conduct of swimming pool operations. The officer shall be designated as the safety officer. He will be responsible for accomplishment of the following functions prior to the exercise:

(1) Furnish a minimum of two lifeguards, one on the stand and one walking, in addition to the necessary swimming instructors. Lifeguards will be holders of the American Red Cross Senior Life Saving Card and will be governed by the American Red Cross Life Saving and Water Safety Manual in the performance of their duties. Pool operators are not water safety qualified and will not be utilized as lifeguards. There will be one water safety instructor for every ten people.

(2) Ensure that a corpsman, one oral resuscitation device and normal first aid equipment are available. In any emergency call the Branch Clinic, Building # 15, phone ext. 3211.

(3) Ensure all personnel take a soap shower in the locker room before putting on swimming attire.

(4) Allow no more than 80 people in the pool at one time.

(5) Allow no one to dive from the high board when the pool is crowded. The pool attendant will determine when this condition exists.

(6) Ensure non-swimmers stay in the shallow end of the pool and they remain in the pool no longer than one hour.

(7) Allow no one to remain in or adjacent to the pool during an electrical storm.

(8) No street shoes will be worn on the swimming pool deck.

(9) Prior to entering the pool area and/or after using the toilet facilities, all bathers will be required to take a cleansing shower in the nude, using soap liberally - paying particular attention to the cleansing of body orifices.

(10) Bathers who have been outside the bathhouse or pool enclosure will not reenter the pool without taking another shower.

(11) No person known to have a fever, cough, cold, inflamed eyes, nasal or ear discharges, or other communicable disease will be allowed to use the pool.

(12) No person with open lesions or other evidence of skin disease, or who is wearing a bandage of any kind, will be allowed to use the pool.

(13) All bathers should make use of the toilet facilities before taking a shower or entering the pool.

(14) Expecterating or utinating in the pool, expecterating on floors, runways and aisles, or contaminating the pool or its facilities in any other way is strictly prohibited.

(15) Food and drink sold on the premises will be consumed in the lounging area adjacent to the pool enclosure and shall not be carried onto pool runways, facilities or into the pool proper.

(16) Smoking will only be allowed in a specially designated area near the pool runway. This area will be distinctly marked and appropriate signs will be placed in the immediate area.

(17) Bringing to the pool or trowing into it any objects that may in any way carry contamination, endanger safety of bathers, or produce unsightly conditions is prohibited.

(18) The presence of dogs, cats or other pets within the enclosure, the pool proper, or the bathhouse facilities is prohibited.

(19) No boisterous or rough play, except supervised water sports or training, will be permitted in the pool, the dressing rooms, or the shower rooms. Particular attention should be given to swimmers using diving boards and platforms.

b. Range Personnel and Area 5 Pool Operators. NCOIC of swimming pool and appropriate assistants for operation of the swimming pool will be furnished by Base Training Facilities Branch.

(1) Open the pool during the following hours:

0800-1630 Monday through Friday
1630-2200 When scheduled

(2) Two operators will be on duty at the pool from 0800-1630. When the swimming pool is scheduled for night training, one operator will be on duty until closing.

(3) Permit only those units scheduled to use the pool.

(4) Maintain the Swimming Pool Operating Record (NAVDOCKS 2563) with information not provided by Base Maintenance Utilities Division (columns 3,4,5,6,9,10,12). This report will be forwarded to the Training Facilities Officer for submission to the Commanding Officer, Naval Regional Medical Center, Camp Lejeune, N.C. 28542, on the last working day of each month.

(5) Report any accident immediately to the Base Training Facilities Officer, Ext. 3920/5803/3064.

(6) Admit children under 12 years of age only when accompanied by a parent or other responsible adult.

(7) Maintain proper security, police and maintenance of the swimming pool, submitting timely work requests to the Range Maintenance Officer for necessary maintenance. Regular cleaning hours will be established and followed.

(8) Prepare the pool for inspection the second and fourth Friday of each month and then notify the Operations Chief at Training Facilities of the results of the inspection.

(9) Ensure that the provisions of paragraph 6 above are strictly adhered to.

(10) In any situations in which the operator needs additional instructions, especially concerning the safety of personnel using the pool, he will at once contact the Operations Chief, Scheduling NCO or Range Control Duty Officer at ext. 3920/5803/3064.

(11) Ensure that the regulations set forth in reference (h) pertaining to swimming pool sanitation are strictly adhered to.

7. WEATHER. No one will be allowed to remain in or adjacent to the swimming pool during an electrical storm.

8. SCHEDULING. Units will schedule by submitting a request to their respective G-3 sections who will call the pool (451-2027) for availability. Marine Corps Base units will submit their requests to arrive at the Base Training Facilities Office a minimum of ten working days prior to the day of use.

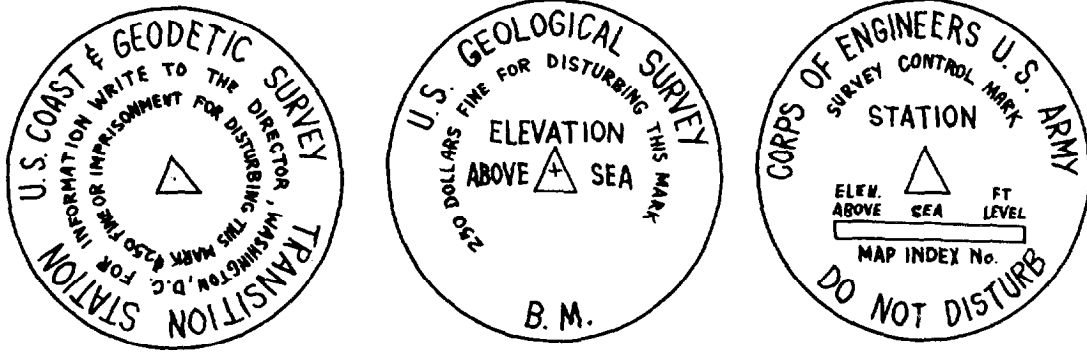
9. SPECIAL REQUEST FOR RECREATIONAL SWIMMING.

a. Request for recreational swimming in the Area 5 Pool will be forwarded via the chain of command to CG, MCB, CLNC (Assistant Chief of Staff, Training) at least two weeks prior to the date of request. The request will include the following information:

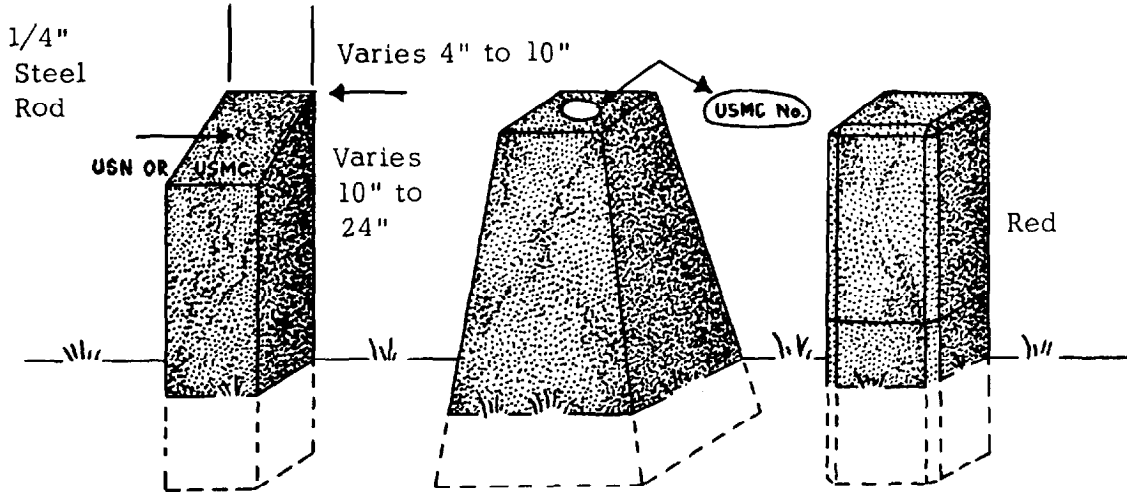
- (1) Unit requesting pool
- (2) Number of personnel to utilize pool
- (3) Date and times of use
- (4) Officer in Charge and number of safety personnel

b. All safety regulations will be strictly adhered to.

APPENDIX C



The above standard brass markers will be found set in concrete in various types and shapes of monuments.



The above concrete markers will be found in various types and shapes.

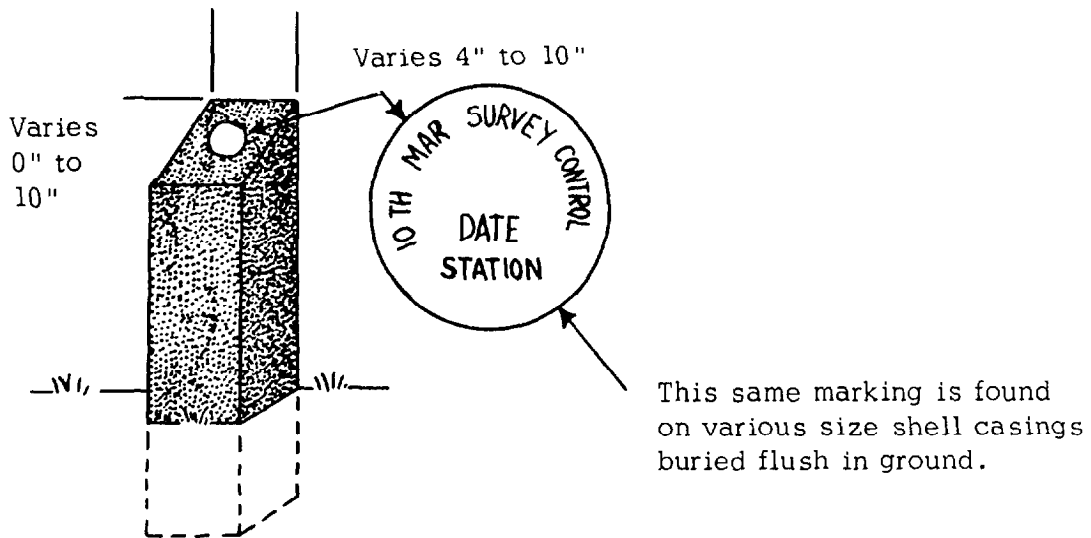


Figure 1. RANGE AND SURVEY CONTROL MARKER DESCRIPTION

APPENDIX D
TRAINING FACILITIES

1. LIVE FIRE RANGES. Live fire ranges and locations are described in Appendix B.

2. OBSERVATION POSTS

<u>DESIGNATION</u>	<u>LOCATION</u>	<u>IMPACT AREA</u>
OP-1	GC 904375	G-10
OP-2	GC 914373	G-10
OP-3	GC 927368	G-10
OP-5	GC 895344	G-10
OP-303	GC 797359	K-2
BROWN'S TOWER	GC 958322	N-1

3. GUN POSITIONS

<u>DESIGNATION</u>	<u>LOCATION</u>	<u>ORDNANCE</u>	<u>IMPACT AREA</u>
GP # 1	GC 911418	105/155/8 in	G-10
2	GC 877414	105/155/8 in	G-10
3	GC 923416	105/155/8 in	G-10
4	GC 928407	105	G-10
5	GC 881383	105/4.2	G-10
6	GC 903378	TLZ PENGUIN 105/4.2	G-10
7	GC 915373	105/4.2	G-10
8	GC 937381	105/155	G-10
9	GC 939372	105/4.2	G-10
10	GC 952368	105/4.2	G-10
11	GC 897345	105/4.2	G-10
12	GC 955350	105/4.2	G-10
13	GC 962353	105	G-10
14	GC 970348	105	G-10
15	GC 948331	105/4.2/155	G-10
16	GC 901322	105/4.2	G-10
17	GC 912324	TLZ CROW 105/4.2/155	G-10
18	GC 923315	105/4.2	G-10
19	GC 945323	105/155	G-10
20	GC 952325	105/155	G-10
21	GC 885307	TLZ DODO 105/155/8 in	G-10 K-2
22	GC 908308	105/155	G-10
23	GC 916309	TLZ GOOSE 105/155/8 in	G-10
24	GC 851284	TLZ CANARY 105/155/8 in	G-10 K-2
25	GC 868295	105/155/8 in	G-10 K-2
26	GC 899302	105/155/8 in	G-10
27	GC 904283	105/155/8 in	G-10
28	GC 913284	TLZ FALCON 105/155/8 in	G-10
29	GC 873258	TLZ BLUEBIRD 105/155/8 in	G-10
30	GC 895274	TLZ ALBATROSS 105/155/8 in	G-10
31	GC 892268	105/155/8 in	G-10
32	GC 928299	105/155/8 in	G-10

<u>DESIGNATION</u>	<u>LOCATION</u>	<u>ORDNANCE</u>	<u>IMPACT AREA</u>
GP #33	GC 899264	105/155/8 in	G-10 K-2
34	GC 904266	105/155	G-10
51 TLZ EAGLE	GC 785413	105/155	K-2
52	GC 781381	105/155	K-2
53 TLZ CARDINAL	GC 783367	105/155	K-2
54 TLZ CONDOR	GC 758352	105/155	K-2
55	GC 762346	105/155	K-2
56	GC 775277	105/155	K-2

4. MANEUVER AREAS. See Reference (i) for geographic locations and boundaries of maneuver areas.

5. LANDING ZONES

a. ADMINISTRATIVE LANDING ZONES.

<u>ALZ #</u>	<u>LOCATION</u>	<u>COORDINATES</u>
1	Camp Johnson, MCSSS	792447
1A	Camp Johnson, MCSSS	795426
2	Naval Hospital NRMC	828394
3	Area One	836392
4	W.P.T. HILL Parade Field	851382
5	2d MarDiv CP	841377
6	10th Marines Area	848369
7	OP #2 (G-10 Area)	915374
8	Courthouse Bay Area	835295
10	Tennis Court, Paradise Pt.	823424
11	2d FSSG (REIN) CP	852389
12	Golf Course (Remain Clear of Qtrs)	808438
13	Golf Course (Rd Intersection)	824437
14	Rifle Range Qtrs (Avoid Ranges)	753300
15	Camp Geiger	744464
15A	Camp Geiger (Parade Field)	749454
16	6th Marines Area	847374
17	Radio Island, Morehead City	
18	2d Marines Area	841382
19	LC Maneuver Area	751282
20	K-Area (Rear of K-305)	
	Daylight Operation only	801360
21	French Creek Area, Athletic Facility	863361
22	Adjacent to Risely Pier	903266
23	Squad Leaders Course Tent Camp	944373

(1) Administrative Landing Zones are not available for the conduct of Training.

(2) Unless it is an emergency situation, ALZ-2 (Naval Hospital) and ALZ-4 (W.P.T. HILL Parade Field) are authorized night landing zones only.

(3) Prior to landing at ALZ-2 (Naval Hospital) notify front desk duty watch (phone 4300/4475/4417).

b. TACTICAL LANDING ZONES

<u>Designation</u>		<u>Location</u>	NAC TACAN <u>Position</u>	<u>Coordinates</u>	<u>Remarks</u>
Albatross	GP-30	Sallier's Bay	141/11	895273	
Bluebird	GP-29	Mile Hammock Bay	151/11	874257	
Cardinal	GP-53	Verona Loop	164/04	784367	
Canary	GP-24	Trap Bay	154/9½	852284	
Condor	GP-54	MF Area	181/4	772358	
Crow	GP-17	G-4 Range	130/9½	913324	
Dodo	GP-21	HB Area	137/9	888308	
Dove		HB Area	145/8½	864305	Emerg. Only
Eagle	GP-51	Ragged Point	139/1½	783411	
Falcon	GP-28	Hurst Beach Road	137/11	912286	
Gander		GG Area	134/10½	909294	
Goose	GP-23	Airstrip	132/10½	919308	
Hawk		Combat Town Area	133/9½	895321	Emerg. Only
Jaybird		HD Area	131/8	877343	
Lark		Triangle Outpost	108/10½	946387	
Owl		LC Area	180/7.9	764285	
Parrot		MB Area	180/3 3/4	766392	
Penguin	GP-6	FD Area	110/8	899376	
Robin		Hubert Area	096/10	950425	
Sparrow		DB Area	114/5½	855396	

*NOTE: Due to loose sand, Hawk and Dove are not recommended for CH-46 operations.

c. AUTHORIZED PARADROP ZONES

Albatross	GP-30	Sallier's Bay	141/11	895273
Bluebird	GP-29	Mile Hammock Bay	151/11	874257
Canary	GP-24	Trap Bay	154/9½	852284
Condor		MF Area	181/4	772358
Crow		G-4 Range	130/9½	913324
Dodo	GP-21	HB Area	137/9	888308
Eagle	GP-51	Ragged Point	139/1½	783411
Falcon	GP-28	Hurst Beach Road	137/11	912286
Goose	GP-23	Airstrip	132/10½	919308
Penguin		FD Area	110/8	899376

6. MAJOR FIELD TRAINING FACILITIES

<u>Designation</u>	<u>Location</u>	<u>Scheduling Activity</u>
W. P. T. HILL Parade Field	GS 8538	Base TFO
Camp Geiger Parade Field	GS 7445	CO, 8th Marines
Camp Johnson Parade Field	GS 7946	CO, MCSSS

<u>Designation</u>	<u>Location</u>	<u>Scheduling Activity</u>
Molly Pitcher Athletic Field	GS 8439	CG, 2d FSSG (Rein)
Combat Town	GS 8931	Base TFO
Gas Chamber	GS 8738	Base TFO
Mock-up, Dry-net (F-17)	GS 8738	Base TFO
Training Pool	Area #2	ACS-G3 2d Mar.Div.
Training Pool	Area #5	Base TFO
Training Pool	Camp Johnson, CO	MCSSS

APPENDIX E
TRAINING FACILITY REQUEST/ASSIGNMENTS
MCBCL 3574/2 (REV 11-69)

DAY AND DATE

1 RANGE	2 HOURS	3 MAXIMUM ORDINATE	4 ORDNANCE TO BE FIRED	5 USING UNIT
A-1				
D-6				
D-9				
D-11A				
D-27				
D-29				
D-30				
F-2				
F-3				
F-4				
F-5				
F-6				
F-13				
F-9				
F-10				
F-11				
F-12				
F-18				
G-2				
G-4				
G-5				
G-5A				
G-7				
G-8				
G-9				
I-1				
I-2				
J-2				
K-326				
K-407				
L-5				

NOTE: REQUESTING UNIT COMPLETE COLUMNS 2, 4 AND 5

1	2	3	4	5	6
RANGE	HOURS	SEA SPACE	MAXIMUM ORDINATE	ORDNANCE	USING UNIT
BT-3					
BT-3					
BT-3					
BT-3					
BT-3					

NOTE: REQUESTING UNIT COMPLETE COLUMNS 2, 5 AND 6

1	2	3	4	5	6	7
GC OF GUN POSITIONS	OP NO.	HOURS	IMPACT AREA	MAXIMUM ORDINATE	ORDNANCE	USING UNIT

NOTE: REQUESTING UNIT COMPLETE COLUMNS 1, 2, 3, 6 AND 7

1	2	3	4	5
RANGE	HOURS	MAXIMUM ORDINATE	ORDNANCE TO BE FIRED	USING UNIT
K-301				
K-303				
K-305				
K-321				

NOTE: REQUESTING UNIT COMPLETE COLUMNS 1, 2, 4 AND 5

1	2	3	4	5
T L Z	HOURS	MAXIMUM ORDINATE	TYPE TRAINING	USING UNIT

NOTE: REQUESTING UNIT COMPLETE COLUMNS 1, 2, 4 AND 5
 DENOTE TYPE TRAINING AS TROOP LIFT, CARGO LIFT, PERSONNEL PARADROP
 EQUIPMENT PARADROP OR HELICOPTER EXERCISES.

MANEUVER AREA OF FIELD TRAINING FACILITY:

NOTE: FILL IN NAME OF FACILITY, HOURS DESIRED AND USING UNIT.

APPENDIX F
REGULATIONS FOR COMBAT TOWN

1. General

a. Combat Town is a simulated village consisting of 13 separate buildings. The ground-level apartments of units numbered one through sixteen are of cement block construction. Second and third floors, where noted, are of wooden construction. Other buildings are of sheetrock/plywood construction with hardwood floors.

b. Recesses have been placed in selected door jambs and stair treads to facilitate the emplacement of booby-trap simulators. Field emplacements that require alteration of existing facilities are prohibited.

c. Combat Town includes maneuver areas extending 300 yards in all directions from the center of the facility.

2. Authorized Firing

a. See paragraph 7 below for authorized ammunition.

b. Live fire, the use of explosives, white phosphorous and incendiaries are prohibited.

3. Safety. Fly scarlet streamers during daylight hours; display red flashing lights from sunset until sunrise from flagpoles located 200 yards east, west, and south of Combat Town at all times the facility is in use.

4. Communications

a. A telephone (7451) is located in the steeple of the church, bldg. 1.

b. The officer in charge of training, his designated representative, or Base Training Facilities Branch personnel only are authorized access to the church steeple.

5. Restrictions

a. Tracked vehicle traffic is prohibited on those portions of Ash, Elm and Maple Streets, as depicted on Tab (A).

b. Entry into or use of portions of buildings as shown on Tab (A) is prohibited.

c. Bivouacking is not permitted in Combat Town.

d. No fires will be intentionally set in Combat Town except as authorized by the Base Range Control Officer.

e. Tracked vehicles used in support of infantry will be operated at a minimum distance of 50 feet from all buildings or structures.

6. Miscellaneous

a. The officer in charge of training will receipt for Combat Town from the Range Control Duty Officer, Bldg. 1, prior to movement to the facility. Upon arrival at Combat Town, he will check in with the Base Training Facilities on-site inspector.

b. Prior to leaving Combat Town and after area police is completed, the officer in charge of training will request an inspection by the on-site inspector.

c. Upon completion of all training, the officer in charge of training will report to the Base Range Control Duty Officer to return property and check in the facility.

d. Every effort must be made to preclude damage to or misuse of Combat Town structures. In the past, willful damage and the use of doors and timbers for warming fires has resulted in increased maintenance and lost training time.

7. Authorized Ammunition

a. Small Arms and Machine Gun Ammunition:

(1) A-111 Cartridge, Cal. 7.62mm M82 Blank A-112

(2) A-224 Cartridge, Cal. 30 M 1909 Blank A-225

b. Hand Grenades:

(1) All practice and colored smoke hand grenades are authorized except during fire danger condition 4 or 5.

(2) Grenade, hand, training G-965 - No restrictions on use during fire condition 1 through 5.

c. Land Mines:

(1) K-105 Mine, A/P, M-8 Practice

(2) K-230 Mine, A/T, M-12 Practice

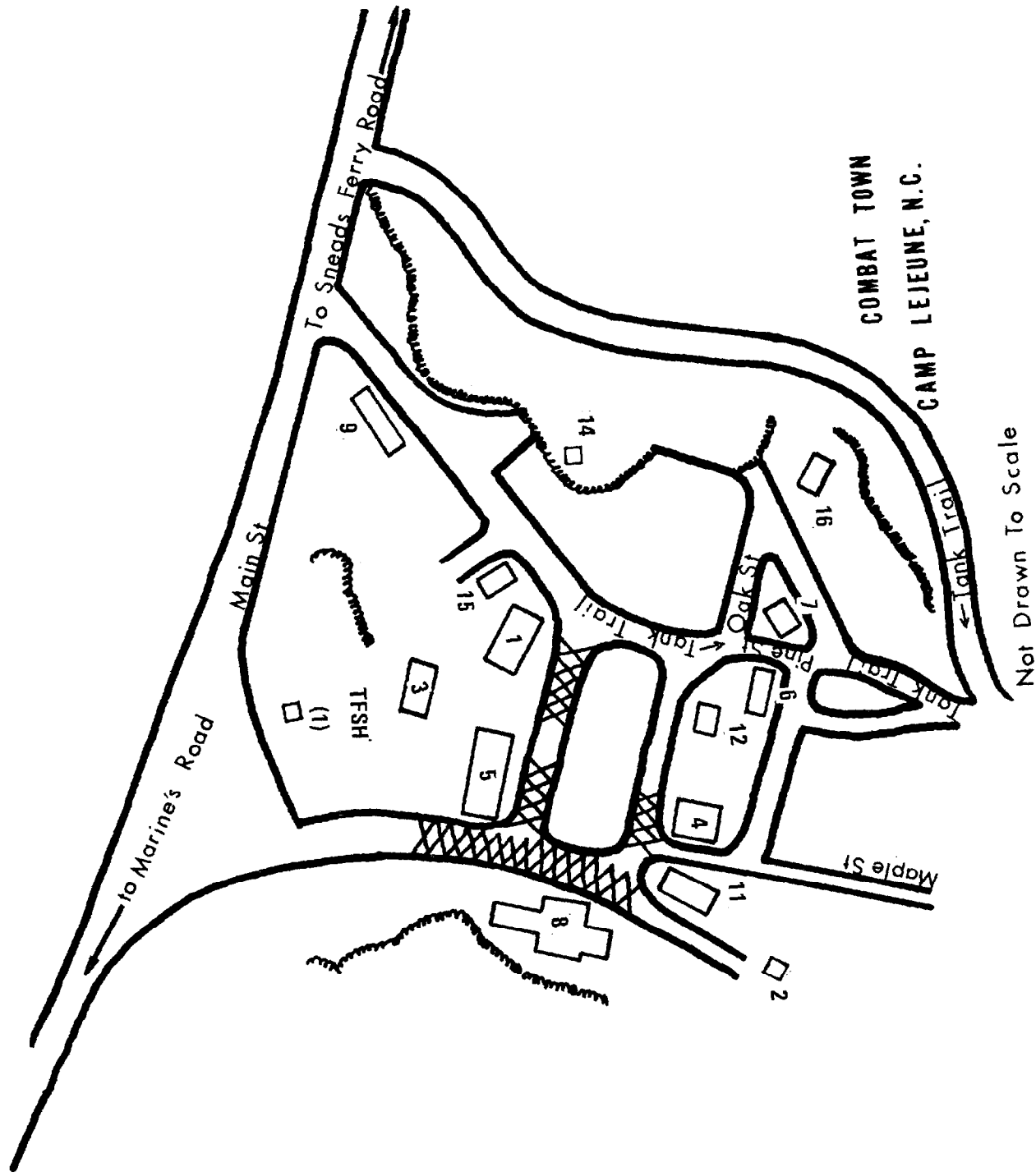
(3) K-321 Mine, A/T, M-20 Practice

d. Pyrotechnics: Not authorized during fire condition 4 or 5.

- (1) L-225 Signal, Illum, A/C RR
- (2) L-226 Signal, Illum, A/C YY
- (3) L-227 Signal, Illum, A/C GG
- (4) L-228 Signal, Illum, A/C RY
- (5) L-229 Signal, Illum, A/C RG
- (6) L-230 Signal, Illum, A/C GY
- (7) L-234 Signal, Illum, A/C YRY
- (8) L-237 Signal, Illum, A/C RR Star
- (9) L-239 Signal, Illum, A/C RGR
- (10) L-309 Signal, Illum, Ground, ASP
- (11) L-310 Signal, Illum, Ground, GSP
- (12) L-311 Signal, Illum, Ground, RSP
- (13) L-312 Signal, Illum, Ground, WSP
- (14) L-313 Signal, Illum, Ground, ASC
- (15) L-314 Signal, Illum, Ground, GSC
- (16) L-315 Signal, Illum, Ground, RSC
- (17) L-316 Signal, Illum, Ground, WSC
- (18) L-323 Signal, Smoke, Ground, Red Parachute
- (19) L-324 Signal, Smoke, Ground, Green Parachute
- (20) L-325 Signal, Illum, Ground, GSC
- (21) L-326 Signal, Illum, Ground, RSP
- (22) L-378 Firecracker, M80
- (23) L-598 Simulator, Booby Trap Flash
- (24) L-599 Simulator, Booby Trap Illuminating

e. Demolitions Material

- (1) M-626 Firing Device, Demolition, Pressure Type
- (2) M-627 Firing Device, Demolition, Pressure Release
- (3) M-630 Firing Device, Demolition, Pull Type



Tab A to APPENDIX F

APPENDIX G

Time/Date Inspected

29

MEMORANDUM

From:

To: Base Training Facilities Officer

Subj: Training Facilities Safety Report and/or Police and Maintenance Discrepancies Report

Ref: (a) BO P11102.1_

1. In accordance with instructions contained in reference (a), the training facility noted below was inspected this date.

Facility: _____

Type Inspection: _____ (Safety, Police, Maint.)

Using Unit: _____ (If applicable)

2. Results of the inspection in the appropriate categories were as follows:

a. <u>Safety Procedures</u>	<u>SAT</u>	<u>UNSAT</u>	<u>N/A</u>
(1) Facility properly signed out	_____	_____	_____
(2) Use of Safety Personnel	_____	_____	_____
(3) Safety Personnel knowledge of regulations	_____	_____	_____
(4) Use of safety equipment	_____	_____	_____
(5) Authorized Weapons and Ammunition	_____	_____	_____
(6) Adherence to firing restrictions	_____	_____	_____
(7) Communications	_____	_____	_____
(8) Other (Explain in Remarks Section)	_____	_____	_____
b. <u>Police</u>			
(1) Roads/Bivouac Areas	_____	_____	_____
(2) Firing lines, points, areas	_____	_____	_____
(3) Down range, Maneuver areas	_____	_____	_____
(4) Brass, unserviceable ammunition	_____	_____	_____
(5) Comm Wire, Trash	_____	_____	_____
(6) Buildings, structures	_____	_____	_____
(7) Other (Explain in Remarks Section)	_____	_____	_____

c. Range Operation and Maintenance	<u>SAT</u>	<u>UNSAT</u>	<u>N/A</u>
(1) Range Operator present (If required)	---	---	---
(2) Gates, fences, signs, flagpoles	---	---	---
(3) Buildings, structures, towers	---	---	---
(4) Firing line, positions, pits, berms	---	---	---
(5) Roads, underbrush, grass	---	---	---
(6) Erosion and drainage	---	---	---
(7) Targets, carriers, railways	---	---	---
(8) Trash barrels, fire buckets	---	---	---
(9) Communications System	---	---	---
(10) Electrical	---	---	---
(11) Other (Explain in Remarks Section)	---	---	---

d. Remarks (Explain unsatisfactory results)

3. Recommendations and Comments

Signature

Rank/Organization

APPENDIX H
HEADQUARTERS, MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

Date _____

From: Officer in Charge of Firing or Training
To: Base Range Control Officer

Subj: Assumption of Responsibility for _____
(Facility, Range, OP)

Ref: (a) BO P11102.1
(b) Army Regs 385-63 of June 1968

1. I certify that I have read and am familiar with all applicable portions of references (a) and (b). I further understand that I must have in my possession a copy of the Safety Regulations governing Marine Corps Base Training Facilities, extracted from reference (a), at all times live firing or air operations are conducted.

2. As Officer in Charge, I assume full responsibility for the safe conduct of all training on, and the proper use, care and police of this training facility during the period

_____ to _____
(Commence - Date/Time) (Cease - Date/Time)

during which _____
(Weapons) (Ammunition)

will be fired.

3. I understand that I must Check-In this facility and return the below listed property upon completion of training:

Safety Streamers _____
Safety Lanterns _____
Range Keys _____
Other _____

(PLEASE PRINT)

Name, Rank, Title Organization

Phone No. _____ Call Sign _____

Signature

RANGE CONTROL CHECK SHEET
MCBCL 8200/1

4. POLICE: (If answer is NO to any item, explain in paragraph e.)

	<u>YES</u>	<u>NO</u>
a. Roads/Bivouac Areas	---	---
b. Firing line, Bldgs, Structures	---	---
c. Down Range Areas	---	---
d. Trash/Brass Removed	---	---
e. Remarks:		

5. Range Maintenance Required:

6. Recommendations/Comments:

7. Number of rounds/type expended _____

(Signature/Rank)

All property listed in paragraph 3 was returned this date with the following exceptions:

(RCDO Signature)

HEADQUARTERS, MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

Date: _____

From: Officer in Charge of Training
To: Base Training Facilities Officer

Subj: Assumption of Responsibility for _____
Maneuver Area(s)

Ref: (a) BO P11102.1

1. I certify that I have read and am familiar with all applicable portions of reference (a). I further understand that I must have in my possession a copy of the Safety Regulations governing Marine Corps Base Training Facilities at all times my unit is occupying the maneuver areas listed above.

2. As Officer in Charge, I assume full responsibility for the safe conduct of all training on, and the proper use, care and police of this training facility during the period:

_____ to _____
(Date/Time) (Date/Time)

3. I understand that I must check-in this facility and complete the range report on the reverse of this form upon completion of training.

Name, Rank, Title Organization

Phone No. _____ Signature _____

RANGE REPORT

1. Police

a. State of police on arrival () () ()
 Unsat Sat Exc

Remarks: _____

b. If state of police on arrival was less than satisfactory explain action taken by you or your unit to alleviate that condition: _____

c. State of police on departure () () ()
 Unsat Sat Exc

If less than satisfactory explain: _____

2. The following maintenance discrepancies were noted and need attention: _____

3. Recommendation/comments: _____

Signature/Rank