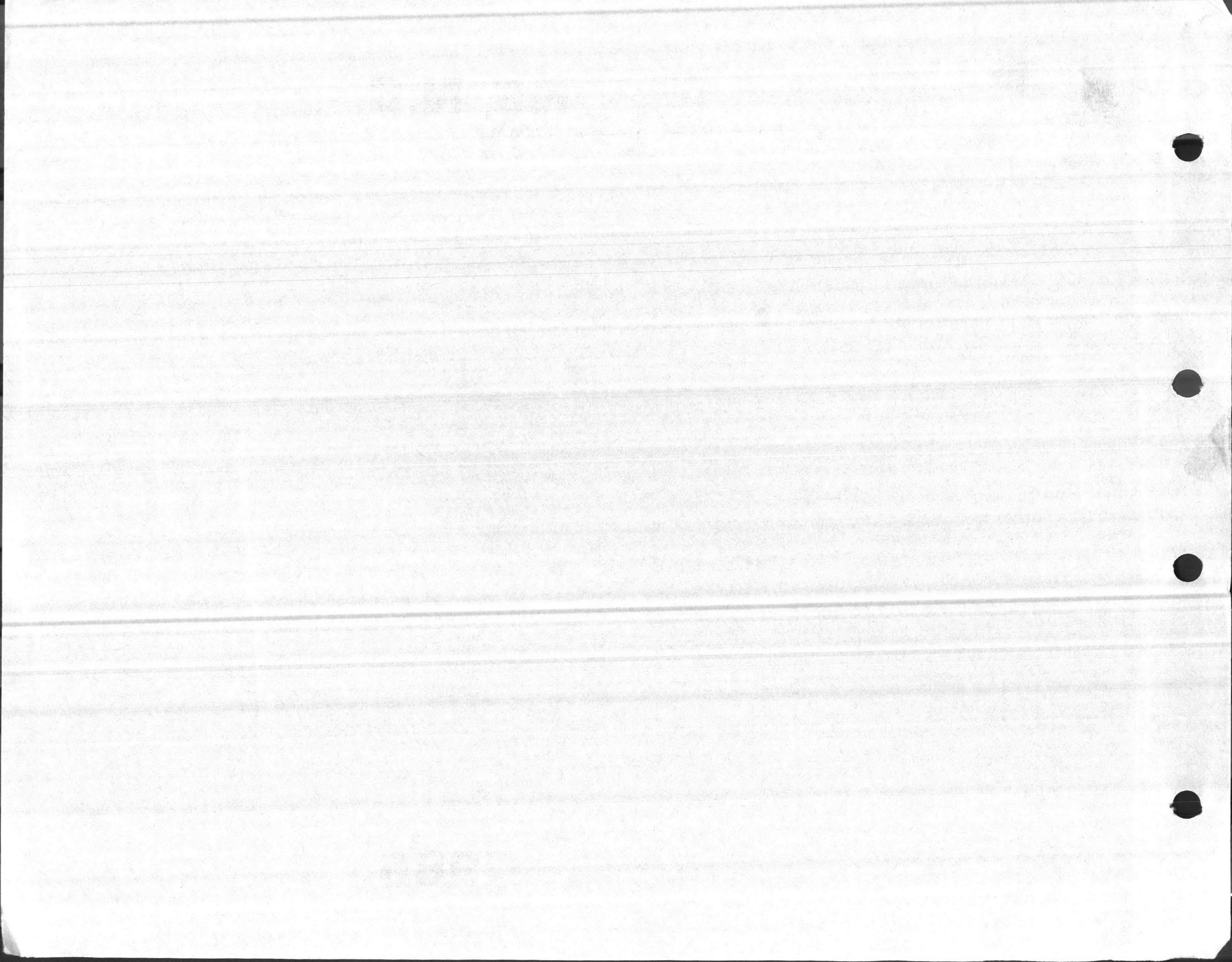


CAMP LEJEUNE, N.C. AREA STUDY



31 JANUARY 1985

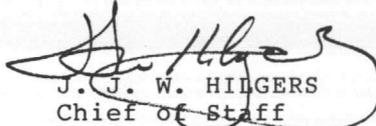




UNITED STATES MARINE CORPS
2d Marine Division, Fleet Marine Force
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:
3811
AC/S, G-2
12 Feb 85

General, Marine Corps Base, Camp Lejeune, North Carolina
(Attention: Assistant Chief of Staff, Training and Operations).


J. J. W. HIGERS
Chief of Staff
Acting

From: Commanding General, 2d Marine Division, FMF
To: Distribution List

Subj: CAMP LEJEUNE, NORTH CAROLINA AREA STUDY

1. Forwarded.

2. Information contained in this study was compiled by the direction of the Commanding General, 2d Marine Division, Fleet Marine Force, Atlantic under the technical supervision of the 2d Force Imagery Interpretation Unit, Fleet Marine Force, Atlantic. The following commands participated in its production:

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SECOND CBTENGRBN	20
SECOND LAVBN	20
SECOND RECONBN	20
SECOND TKBN	20
HQBN	5

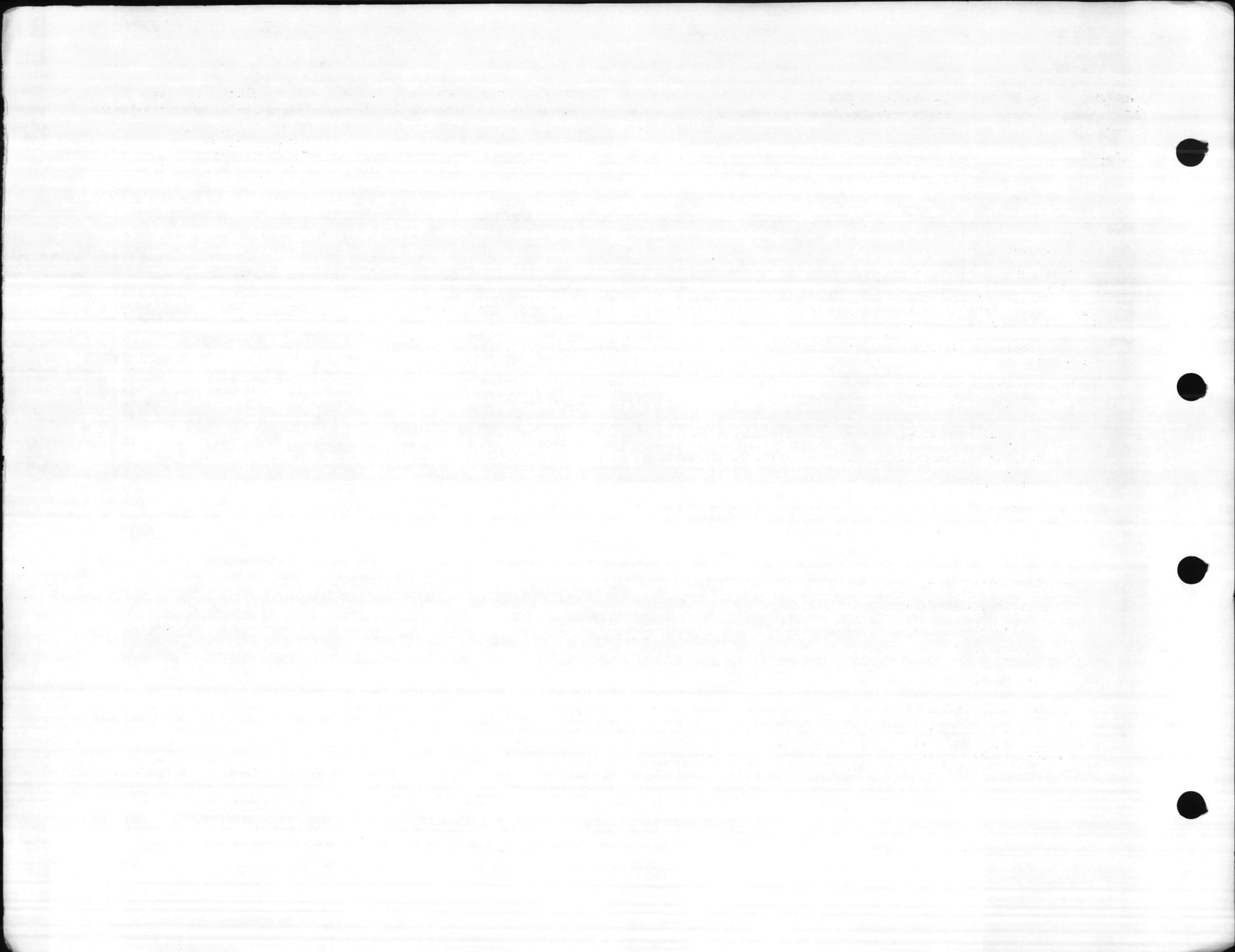


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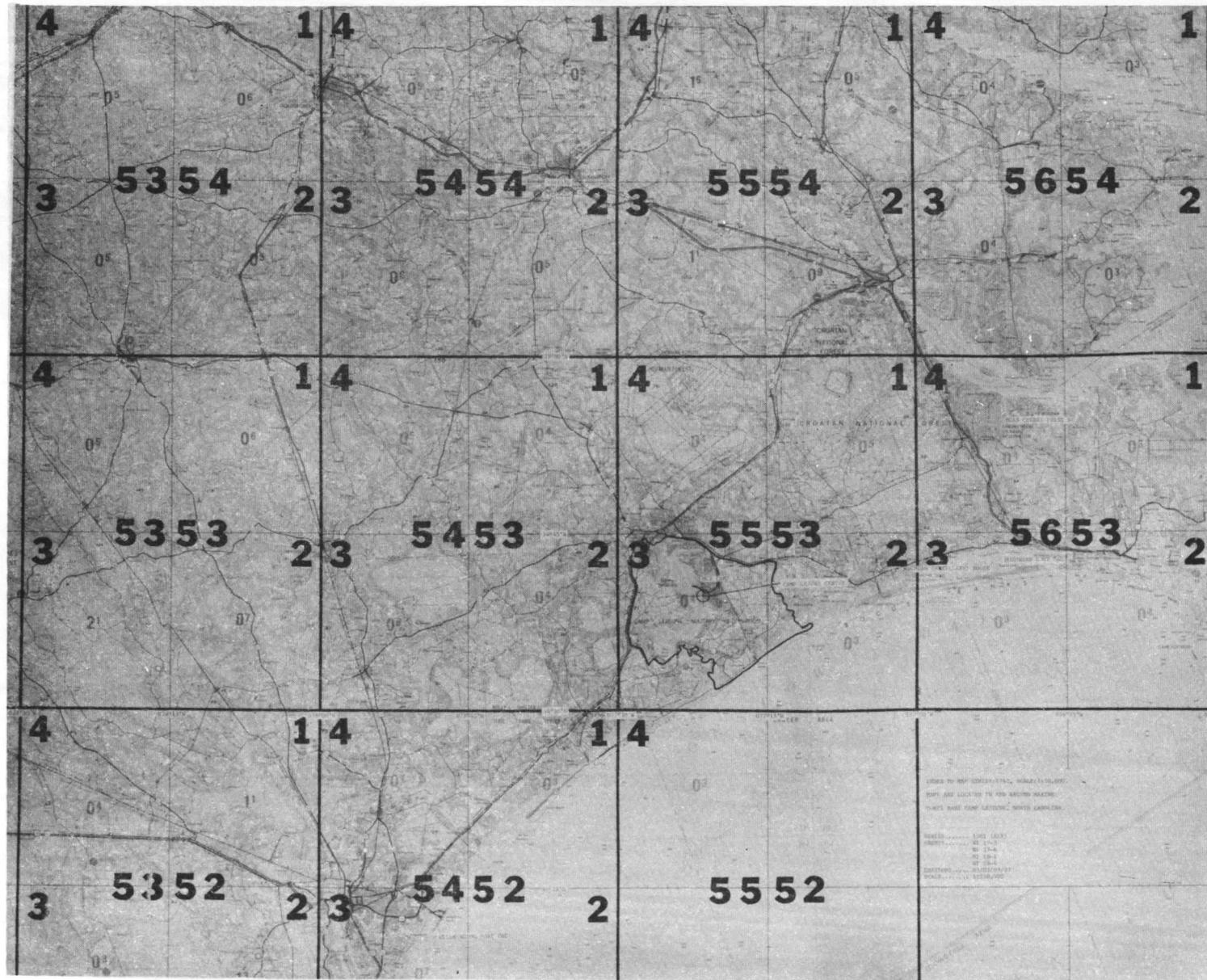
NOTE: SOFT B. E. NUMBERS AND FUNCTIONAL CLASSIFICATION CODES HAVE BEEN ASSIGNED TO GRAPHICS WITHIN THIS STUDY.

ALL PERSONNEL SHOULD LEARN TO REFER TO THESE ITEMS TO ENHANCE THEIR UNDERSTANDING OF THERE USAGE.

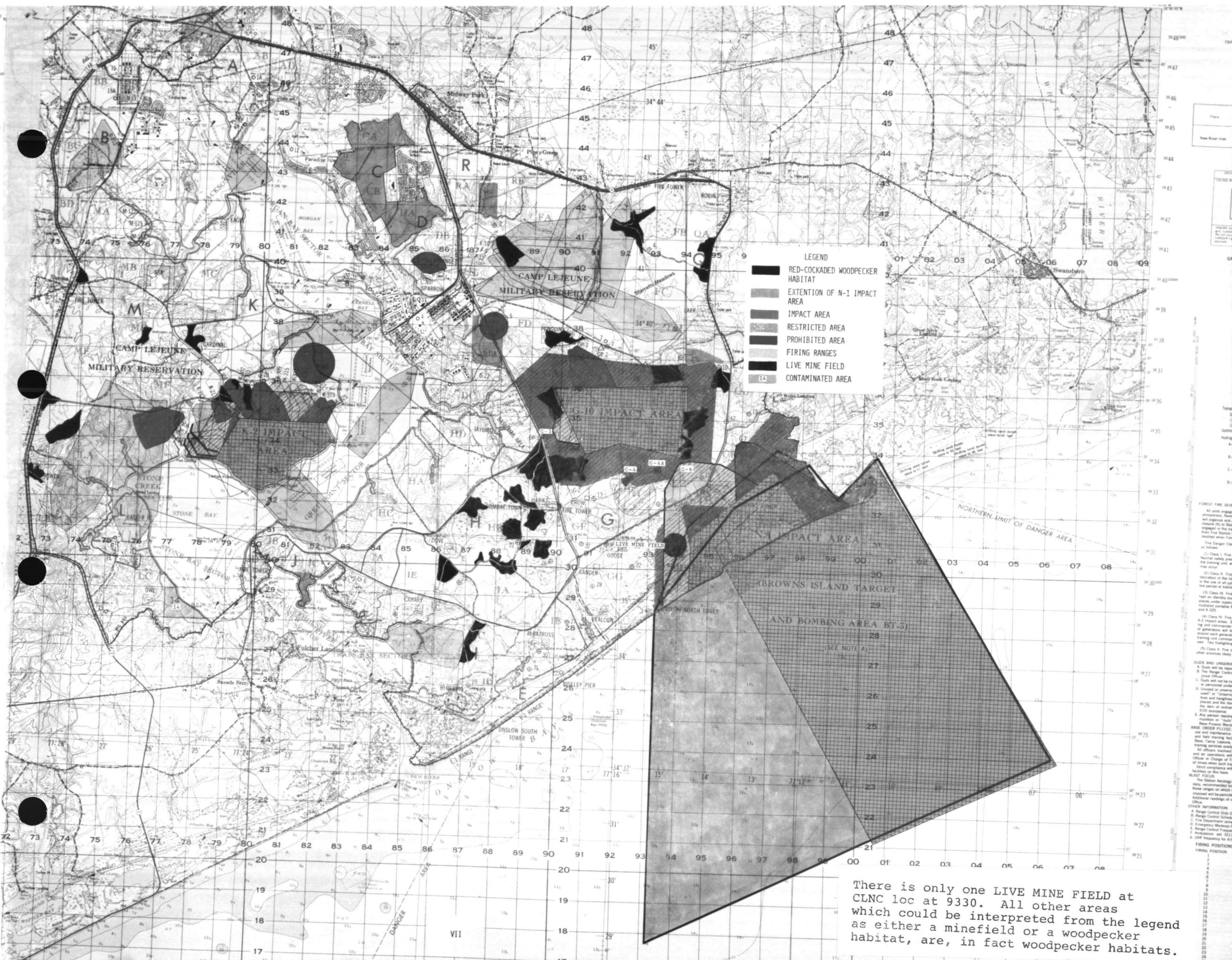
DURING A REAL WORLD CONTINGENCY A MARINE WILL NOT HAVE THE LUXURY OF HAVING A NAME ONLY TO REFER TO REAL WORLD LOCATIONS. HE WILL SEE B. E. NUMBERS, FUNCTIONAL CLASSIFIED CODES AND GEOGRAPHIC COORDINATES.

WITH THIS IN MIND, MARINES SHOULD ADAPT THIS IN THEIR EVERYDAY TRAINING EFFORTS.

INDEX TO 1:50,000 MAPS AROUND CAMP LEJEUNE N.C.



All information depicted on the following Camp Lejeune Special Map is based on data submitted by units of Camp Lejeune during June and July 1984. This data is currently under question by using units and is being revised. The 2d Topographic Platoon, Camp Lejeune is the focal point and producer of an updated revision of the Camp Lejeune Special Map. This new revision is not expected to be completed prior to FY 86. With this in mind, units are requested to contact Range Control on matters that may concern limits, restrictions, movements and any other questions that unit commanders may ask on training.



- LEGEND
- RED-COCKADED WOODPECKER HABITAT
 - EXTENSION OF N-1 IMPACT AREA
 - IMPACT AREA
 - RESTRICTED AREA
 - PROHIBITED AREA
 - FIRING RANGES
 - LIVE MINE FIELD
 - CONTAMINATED AREA

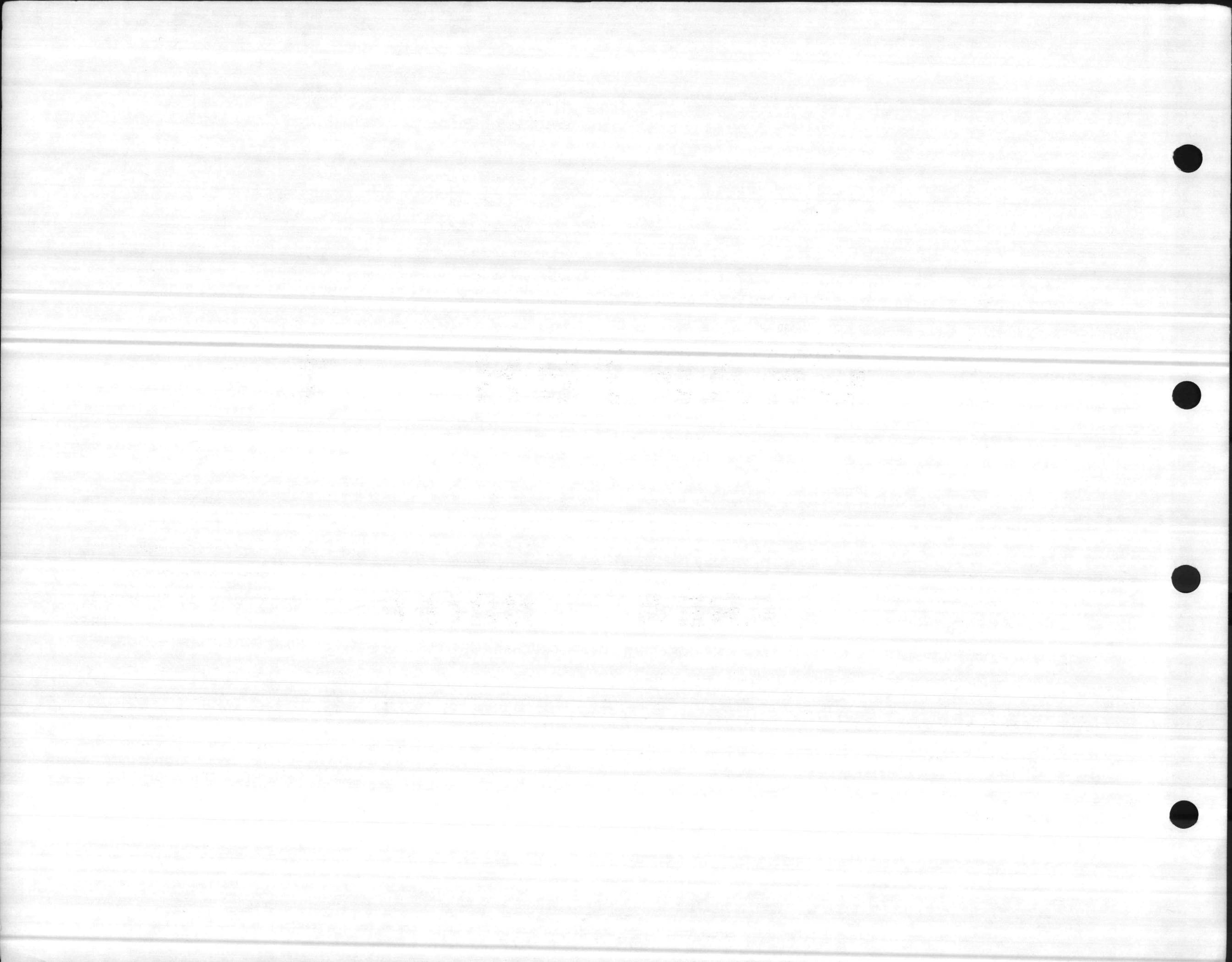
There is only one LIVE MINE FIELD at CLNC loc at 9330. All other areas which could be interpreted from the legend as either a minefield or a woodpecker habitat, are, in fact woodpecker habitats.

Place
Scale
1:50,000
GRI
Tongue
DB
(1)
(2)
Hydrants
A-N
(1)
B-N
(1)
C-N
(1)
D-N
(1)
FOREST FIRE SEVEN
All areas engaged in operations...
(1) Class I. Fire...
(2) Class II. Fire...
(3) Class III. Fire...
(4) Class IV. Fire...
(5) Class V. Fire...
DUTY AND UNSERVICE
A. Duty...
B. Range Control...
C. Duty...
D. Unservice...
E. Any person...
BASE ORDER P11101
use and maintenance...
BLAST FOCUS
The Station...
OTHER INFORMATION
A. Range Control...
B. Range Control...
C. Fire Department...
D. Emergency...
E. Range Control...
F. Ambulance...
G. UHF Frequency...
FIRING POSITIONS
FIRING POSITION
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THIS PAPER IS MANUFACTURED BY KODAK

CHAPTER 1

AREA BRIEF



AREA STUDY OF MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

"THE WORLD'S MOST COMPLETE AMPHIBIOUS TRAINING BASE"

1. PURPOSE AND LIMITING CONSIDERATIONS

A. PURPOSE. THE PRIMARY PURPOSE OF THIS AREA STUDY IS TO COMPILE A DETAILED, CONCISE ANALYSIS OF MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA AND ITS TRAINING AREAS, TO BE UTILIZED BY COMMANDS AND UNITS IN THE PLANNING AND DEVELOPMENT OF TRAINING PROGRAMS OR FIELD EXERCISES TO ENHANCE AMPHIBIOUS OPERATIONS AND TACTICS.

B. LIMITING CONSIDERATIONS. INFORMATION PRESENTED IN THIS STUDY IS BASED ON DATA DERIVED FROM AERIAL IMAGERY COLLECTED DURING 1983 AND 1984, UPDATED MAPS, AND DOCUMENTS PRODUCED PRIOR TO AUGUST 1984. CURRENT CONSTRUCTION WITHIN CAMP LEJEUNE MAY ALTER AREAS OF CONCERN, AND INFORMATION PRESENTED HEREIN SHOULD BE VERIFIED WITH RANGE CONTROL OR BASE FACILITIES DIVISION.

2. PHYSICAL DESCRIPTION, TRANSPORTATION/LINES OF COMMUNICATION AND USE

A. PHYSICAL DESCRIPTION. MARINE CORPS BASE, CAMP LEJEUNE IS LOCATED ON THE COASTAL PLAIN REGION OF EASTERN NORTH CAROLINA WITHIN ONSLOW COUNTY. THE BASE EXTENDS FROM THE CITY OF JACKSONVILLE APPROXIMATELY 15 MILES EAST IN AN IRREGULAR SHAPE TO BORDER THE ATLANTIC OCEAN ALONG A 14 MILE OCEAN FRONTAGE PARALLELING THE INTRACOASTAL WATERWAY (ICW). THE OCEANFRONT EXTENDS FROM BEAR INLET AT THE NORTHEAST TO NEW RIVER INLET IN THE WEST SOUTHWEST, WITH BOTH INLETS DRAINING INTO THE ATLANTIC OCEAN. CAMP LEJEUNE IS THE WORLD'S LARGEST AMPHIBIOUS TRAINING BASE, COVERING APPROXIMATELY 83,585 ACRES OF LAND AND 26,000 ACRES OF WATER FOR A TOTAL OF APPROXIMATELY 109,585 ACRES. MARINE CORPS AIR STATION (HELICOPTER), NEW RIVER IS CONTAINED WITHIN THE BOUNDARIES OF CAMP LEJEUNE, OCCUPYING AN AREA OF APPROXIMATELY 3,728 ACRES WHICH IS NOT INCLUDED IN THE TOTAL LAND AREA OF CAMP LEJEUNE.

B. TRANSPORTATION/LINES OF COMMUNICATION. CAMP LEJEUNE IS SERVICED BY FIVE MAJOR HARD SURFACE, ALL WEATHER, 2 TO 4 LANE ROADWAYS, WHICH ARE DESIGNATED AS

U. S. HIGHWAY 17 AND NORTH CAROLINA ROUTES 24, 258, 172 AND 210. RAIL SERVICE IS PROVIDED BY NORFOLK SOUTHERN AND SEABOARD COAST LINE BRANCHES WHICH CONNECTS CAMP LEJEUNE WITH THE URBAN AREA OF WILMINGTON (184 RAIL MILES SOUTH-WEST VIA NEW BERN AND GOLDSBORO). THE CAMP LEJEUNE RAILROAD BRANCH TRAVELS TO MARINE CORPS AIR STATION, CHERRY POINT, 32 MILES EAST NORTHEAST AND THEN ON TO MOREHEAD CITY. THERE ARE TWO DEEP WATER PORTS AVAILABLE TO CAMP LEJEUNE, WHICH ARE LOCATED AT WILMINGTON AND MOREHEAD CITY, THE LATTER BEING 46 MILES NORTHEAST ALONG NC ROUTE 24. THE ICW EXTENDS ALONG THE 14 MILES OF HURST/ ONSLOW BEACH WHICH FORMS THE CAMP LEJEUNE SOUTHEAST BOUNDRY. MOVEMENT ACROSS THE WATERWAY IS CHANNELIZED TO THE ONSLOW BEACH DRAWBRIDGE AND SELECTED RIVER CROSSING SITES. TERRAIN WITHIN THE BASE IS GENERALLY FLAT AND SANDY WITH SWAMPLAND/MARSH AREAS ALONG THE STREAMS, RIVERS AND BAYS. CROSS-COUNTRY TRAFFICABILITY VARIES ACCORDINGLY. COMMUNICATIONS INLAND WITHIN THE STUDY AREA ARE CONSIDERED VERY GOOD TO EXCELLENT. SEE CHAPTER 5 (BEACH STUDIES) FOR MORE INFORMATION ON BEACH AND ICW CROSSINGS.

C. CONDITIONS FOR USE. CONDITIONS FOR CONDUCTING FIELD TRAINING EXERCISES WITHIN CAMP LEJEUNE ARE CONSIDERED FAVORABLE THROUGHOUT THE YEAR. HOWEVER, THE MARCH THROUGH JUNE PERIOD PROVIDES THE MOST FAVORABLE HYDROGRAPHIC CONDITIONS FOR AMPHIBIOUS OPERATIONS ACROSS ONSLOW BEACH AND THE ICW. SEE CHAPTER 5 (BEACH STUDIES) FOR DETAILED INFORMATION. NATURAL OBSTACLES TO AMPHIBIOUS OPERATIONS AND MOVEMENT INLAND ARE THE ICW, NEW RIVER INLET, BROWNS INLET, BEAR INLET, SMALL STREAMS WITHIN THE STUDY AREA AND SWAMP/ MARSHLANDS. MAN-MADE OBSTACLES ARE CONSTRUCTED FOR SPECIFIC TRAINING/EXERCISE PURPOSES AND ARE REQUIRED TO BE DISASSEMBLED AFTER TRAINING IS COMPLETED. A SYSTEMATIC CHECK OF THE AREA TO BE UTILIZED SHOULD BE ACCOMPLISHED PRIOR TO ANY COMMENCEMENT OF TRAINING. SEE CHAPTER 2 (TRAINING AREAS) FOR INFORMATION ON NATURAL AND PERMANENT MAN-MADE OBSTACLES. PRECIPITATION MAY HAMPER CROSS-COUNTRY MOVEMENT (CCM) WITHIN THE CAMP LEJEUNE TRAINING AREAS. SEE CHAPTER 7

(CLIMATOLOGY) FOR INFORMATION ON PRECIPITATION AVERAGES./

3. WEATHER/CLIMATOLOGY AND VISIBILITY

A. WEATHER/CLIMATOLOGY. WEATHER AND CLIMATE STATISTICS PROVIDED IN THIS STUDY ARE DERIVED FROM A PERCENTAGE OCCURENCE PATTERN AND WILL BE AFFECTED BY EXTREMES. THE CLIMATE OF CAMP LEJEUNE IS CONSIDERED FAVORABLE FOR AMPHIBIOUS OPERATIONS THROUGHOUT THE YEAR. OPERATIONS MAY BE RESTRICTED BY SUDDEN TROPICAL STORMS AND HURRICANES. THESE ADVERSE WEATHER CONDITIONS USUALLY OCCUR BETWEEN JULY AND LATE OCTOBER. SEE CHAPTER 7 (CLIMATOLOGY) FOR SPECIFIC WEATHER INFORMATION.

B. VISIBILITY. LOW CEILING CLOUDS AND FOG CAN BE EXPECTED IN THE FALL AND WINTER MONTHS WITH THE PASSING OF WARM FRONTS FROM THE NORTHEAST. THESE CONDITIONS ARE USUALLY OF SHORT DURATION AND IN MOST CASES OF NO MAJOR CONSEQUENCE TO OPERATIONS IN THE AREA.

4. TOPOGRAPHY

A. RELIEF. TERRAIN WITHIN THIS STUDY EXTENDS FROM SEA LEVEL TO A MAXIMUM ELEVATION OF 72 FEET, WITH THE MAJORITY OF THE SURFACE BEING FLAT. SEE CHAPTER 1 (RELIEF OVERLAY).

B. DRAINAGE. THE AREA WITHIN THIS STUDY IS DRAINED BY SMALL CREEKS AND STREAMS EMPTYING INTO THE NEW RIVER. LAND BORDERING WATERWAYS IS GENERALLY SWAMPY AND NOT CAPABLE OF SUPPORTING VEHICULAR TRAFFIC WITHOUT MATTING OR BUILD UP. THE NEW RIVER AND ICW BOTH ARE NAVIGABLE TO WATERCRAFT, WITH CHANNELS DREDGED TO A REPORTED MEAN LOW WATER DEPTH OF 6 AND 12 FEET RESPECTIVELY. SEE CHAPTER 1 (DRAINAGE OVERLAY)

C. VEGETATION. DENSE GROWTHS OF A VARIETY OF PINES (I.E., LOBLOLLY, LONGLEAF, SLASH), HARDWOODS (I. E., NATTALL OAK, WATER OAK, AMERICAN SYCAMORE) AND UNERGROWTHS OF SCRUBS AND VINES ARE SPREAD THROUGHOUT THE STUDY AREA. TERRAIN BORDERING WATERWAYS IS MOSTLY SWAMPY AND IS VEGETATED PREDOMINATELY WITH MARSH GRASS, AND SCRUBS. TREES RANGE FROM 10 TO 90 FEET IN HEIGHT AND THE GRASS, SCRUBS AND VINES RANGE FROM 3 TO 12 FEET EXCEPT FOR CLEARED AREAS.

CROSS-COUNTRY MOVEMENT IS CHANNELIZED AND CONTROLLED BY VEGETATION. SEE CHAPTER 1 (VEGETATION OVERLAY, PENDING).

D. SURFACE MATERIAL. SOIL COMPOSITION IS PRIMARILY SAND, LOAM, SILT, CLAY AND VARIOUS COMBINATIONS THEREOF. A MORE DETAILED ANALYSIS OF SURFACE MATERIAL IS FOUND WITHIN CHAPTER 2 (TRAINING AREAS). SWAMP AND MARSH AREAS ARE NUMEROUS AND NORMALLY LOCATED NEAR SWALES, GULIES AND ALONG WATERWAYS. THE STUDY AREA IS GENERALLY FOUND TO BE POORLY SUITED FOR AGRICULTURAL USE.

5. MAN-MADE FEATURES. MAN-MADE FEATURES INCLUDE ROADS, BRIDGES, RAILWAYS, DEVELOPED AREAS AND CAMP/TRAINING AREAS. THE FOLLOWING PARAGRAPHS SUMMARIZE SIGNIFICANT CULTURAL FEATURES. SEE CHAPTER 3 (LINES OF COMMUNICATION) FOR MORE SPECIFIC LOC INFORMATION.

A. ROADWAYS. ROADWAYS WITHIN THE CAMP LEJEUNE AREA RANGE FROM HARD-SURFACE (HEAVY DUTY), FOUR LANE HIGHWAYS TO UNIMPROVED-SURFACE (DRY WEATHER), SINGLE LANE VEHILCE TRACKS AND TRAILS.

B. RAILWAYS. RAILWAYS SERVICING CAMP LEJEUNE ARE OF STANDARD GAGE AND, CONNECT THE BASE WITH LINE ACCESS TO WILMINGTON, NEW BERN, MCAS CHERRY POINT AND MOREHEAD CITY, NORTH CAROLINA.

C. BRIDGES. BRIDGES ALONG PRIMARY ROADWAYS WITHIN THE AREA ARE CAPABLE OF SUPPORTING 40 TO 60 TONS. TANKS, AMPHIBIOUS TRACKED VEHICLES AND HEAVY EQUIPMENT ARE RESTRICTED BY BASE REGULATION TO TANK TRAILS, TANK CROSSING PADS, AND OTHER DESIGNATED ROADWAY CROSSING SITES ABOARD THE BASE. (SEE CHAPTER 3, LOC OVERLAY.)

D. DEVELOPMENT, TRAINING AND CAMP AREAS. MCAS (H), NEW RIVER IS SITUATED ON THE WEST BANK OF THE NEW RIVER AND NORMALLY SUPPORTS HELICOPTER AND TRANSPORT TYPE AIRCRAFT OPERATIONS. THE AIRFIELD HAS A HARD-SURFACE RUNWAY OF 5,000 FEET. BASE BUILT UP AREAS ARE OF PERMANENT STRUCTURAL DESIGN. TRAINING AREAS MAY HAVE TEMPORARY STRUCTURES ERECTED TO FACILITATE TRAINING OBJECTIVES.

6. MILITARY ASPECTS OF THE STUDY AREA

A. TACTICAL ASPECTS OF THE TERRAIN.

(1) OBSERVATION: FIELDS OF OBSERVATION WITHIN TRAINING AREAS ARE RESTRICTED DUE TO VEGETATION DURING SPRING AND SUMMER MONTHS. DURING FALL AND WINTER, OBSERVATION IS ENHANCED BY THE LOSS OF ANNUAL FOLIAGE.

(2) FIELDS OF FIRE: FIELDS OF FIRE ARE RESTRICTED BY BUILT UP AREAS AND ARE CONTROLLED BY THE BASE RANGE OFFICE. ALL RANGE AND IMPACT AREAS ARE WELL MARKED WITHIN THE STUDY AREA. SEE CHAPTER 2 (TRAINING AREAS) FOR MORE INFORMATION ON FIRING CONSIDERATIONS AND RESTRICTIONS.

(3) COVER AND CONCEALMENT: ALTHOUGH THE TERRAIN RELIEF IS GENERALLY FLAT THROUGHOUT THE BASE, COVER AND CONCEALMENT IS GOOD TO EXCELLENT DUE TO HEAVY VEGETATION AND UNDERGROWTH.

(4) OBSTACLES: NATURAL OBSTACLES IN THE AREA INCLUDE RIVERS, STREAMS/ CREEKS, SWAMPS AND DENSE VEGETATION. MAN-MADE OBSTACLES ARE BUILT UP AREAS (WHICH ARE RESTRICTED TO MANEUVERS BY BASE REGULATIONS) AND THOSE OBSTACLES CONSTRUCTED IN TRAINING AREAS TO ENHANCE MILITARY TRAINING/EXERCISES.

(5) TRACKED VEHICLES: TANKS, AMPHIBIOUS TRACKED VEHICLES AND HEAVY EQUIPMENT ARE RESTRICTED FROM MOVEMENT ALONG PRIMARY ROADS BY BASE REGULATIONS. TANK TRAILS AND ACCESS ROADS PROVIDE AMPLE CROSS-BASE MOVEMENT ROUTES FOR THESE VEHICLES. CROSS-COUNTRY MOVEMENT OF TROOPS WILL BE INHIBITED BY SWAMPS, PONDS, SMALL STREAMS AND DENSE VEGETATION.

(6) KEY TERRAIN FEATURES: THE NEW RIVER BISECTS CAMP LEJEUNE AND OCCUPIES APPROXIMATELY 26,000 ACRES OF THE TOTAL SURFACE AREA OF THE BASE. NEW RIVER INLET, BROWNS INLET AND BEAR INLET DISSECT THE COASTLINE OF ONSLOW BEACH. NUMEROUS STREAMS AND CREEK SUBSIDIARIES TO THE NEW RIVER EXTEND THROUGHOUT THE BASE AND ARE OFTEN DETERMINING TERRAIN FEATURES. THE MAN-MADE INTRACOASTAL WATERWAY IS ESPECIALLY SIGNIFICANT FOR EXERCISE/OPERATIONAL PLANNERS.

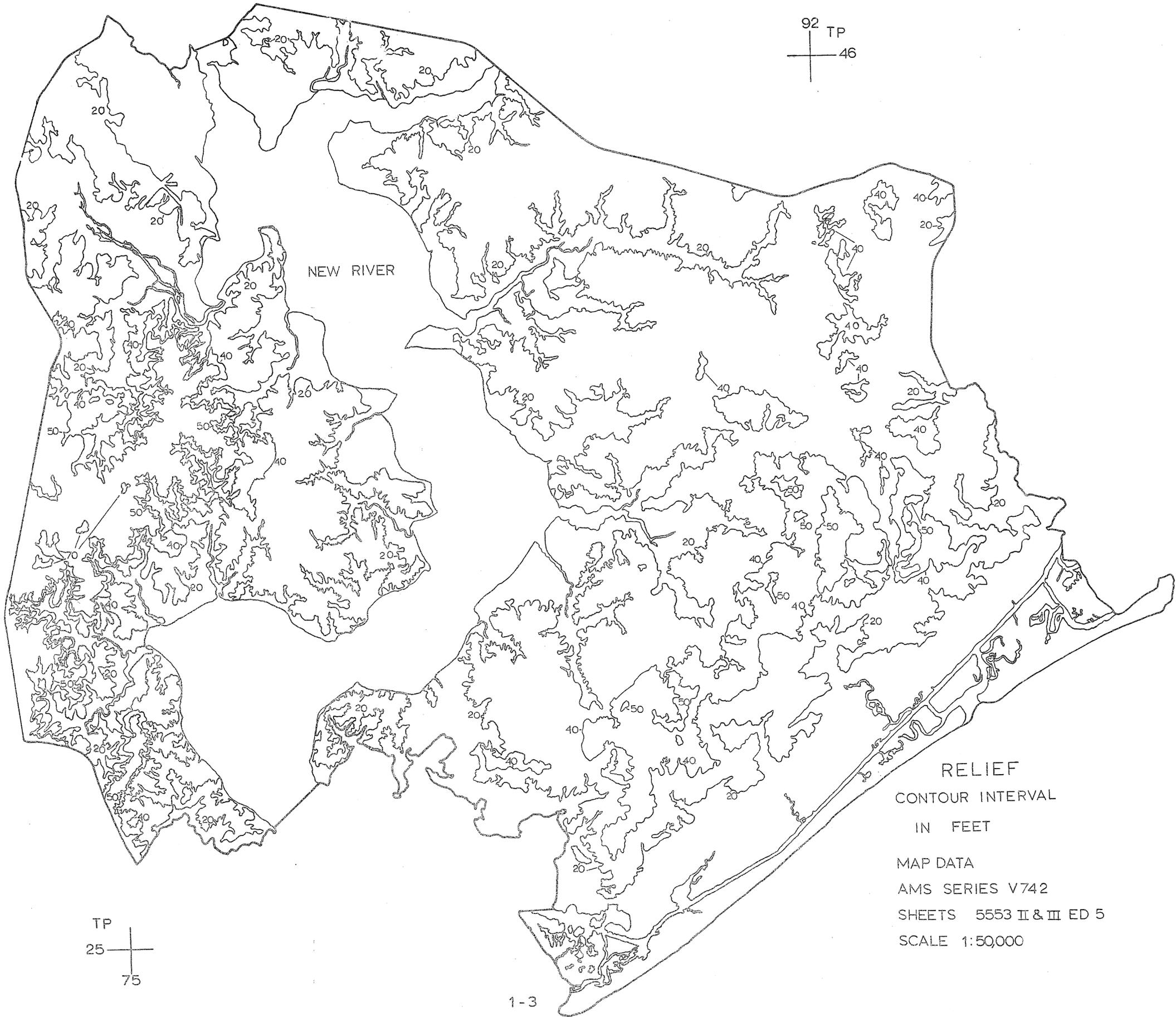
B. ENGINEERING ASPECTS OF THE TERRAIN. SOIL MOISTURE CONTENT AND AREAS OFSTANDING WATER COMPLICATE CONSTRUCTION EFFORTS WITHIN THE BASE. THE USE OF PILINGS AND PLACING OF A GROUND BASE IS REQUIRED PRIOR TO CONSTRUCTION ON DEVELOPMENT SITES.

OVERLAYS

1. RELIEF

2. VEGETATION

3. DRAINAGE



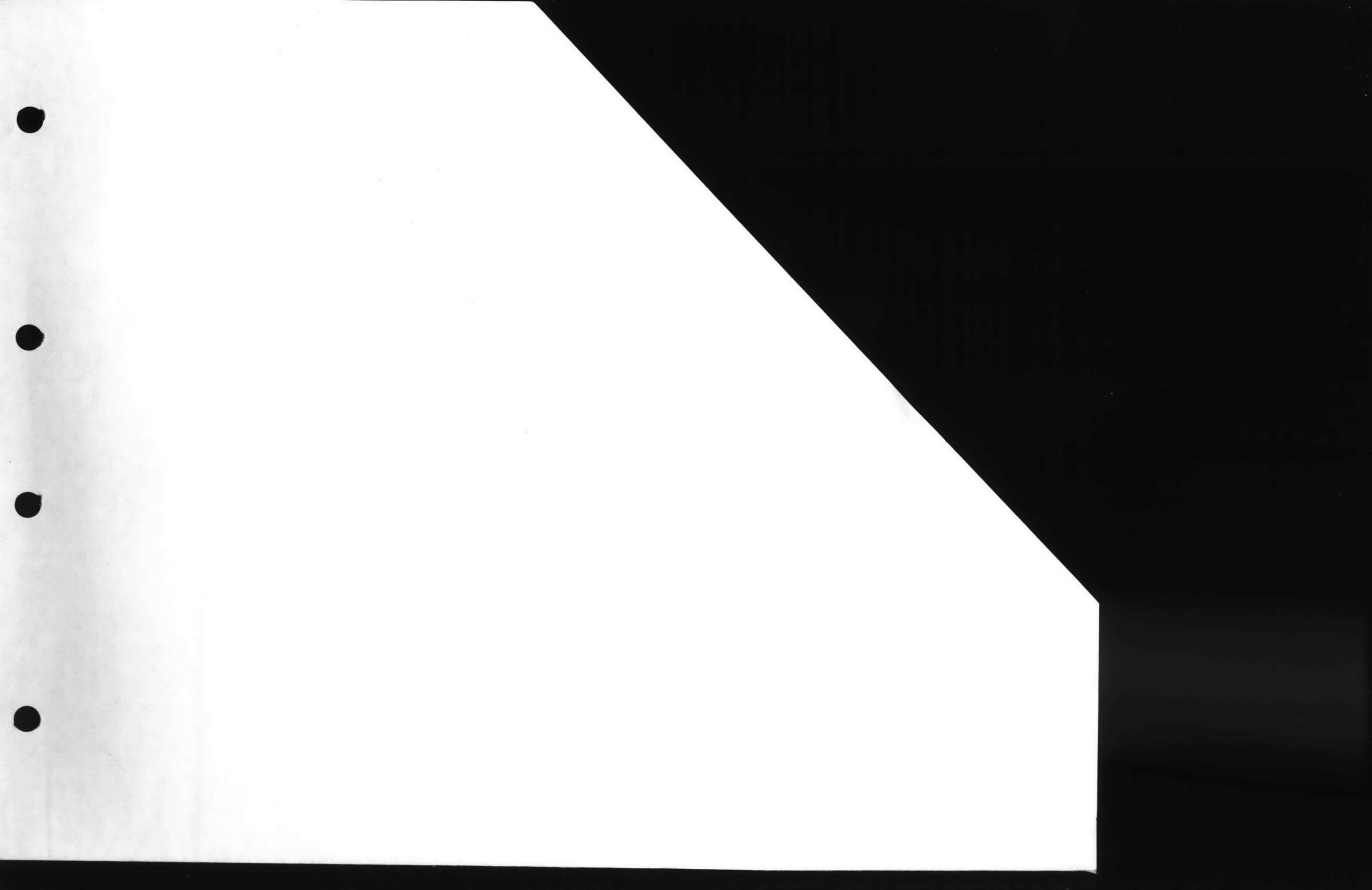
RELIEF
CONTOUR INTERVAL
IN FEET

MAP DATA
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SHEETS 5553 II & III ED 5
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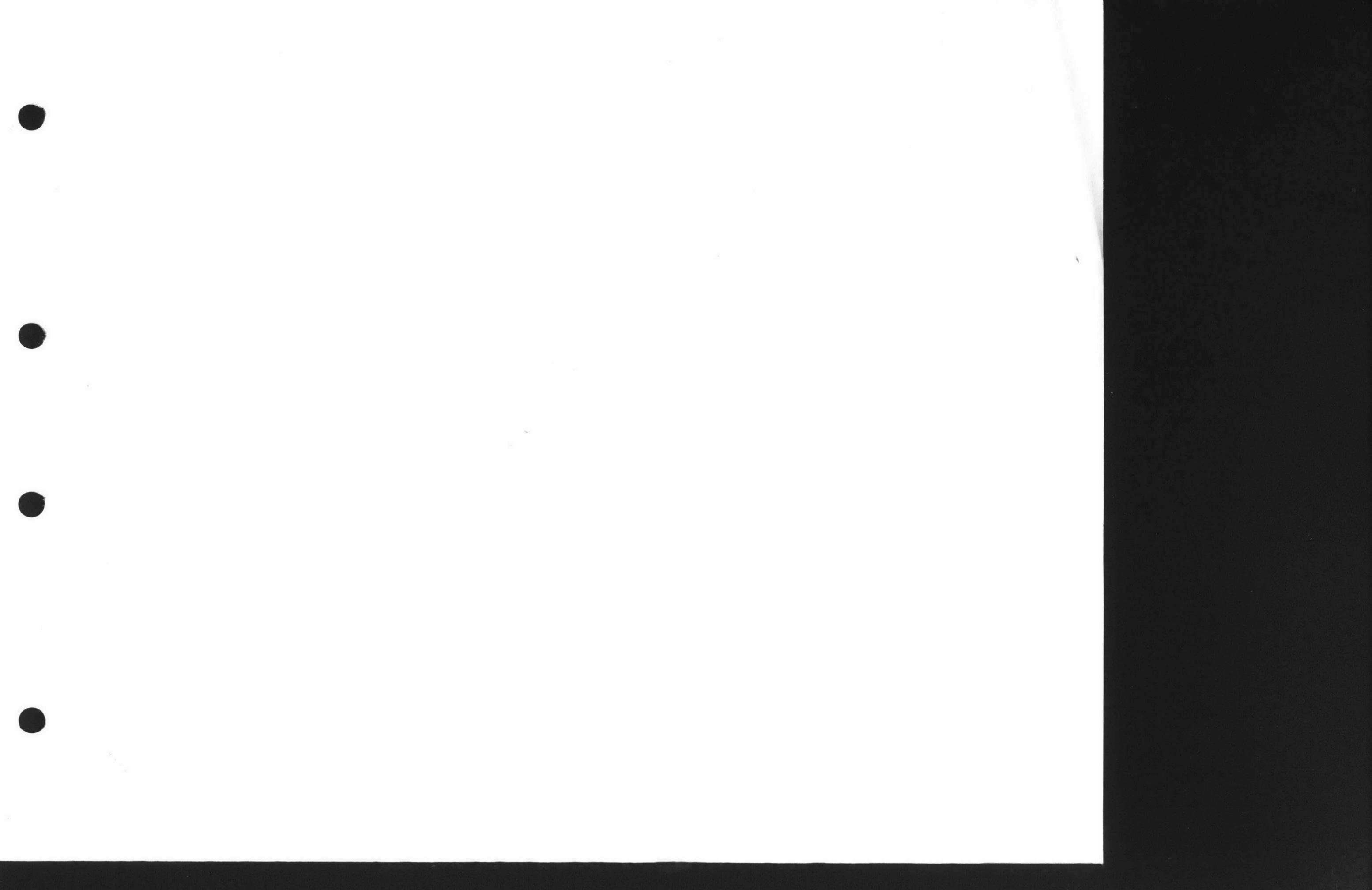


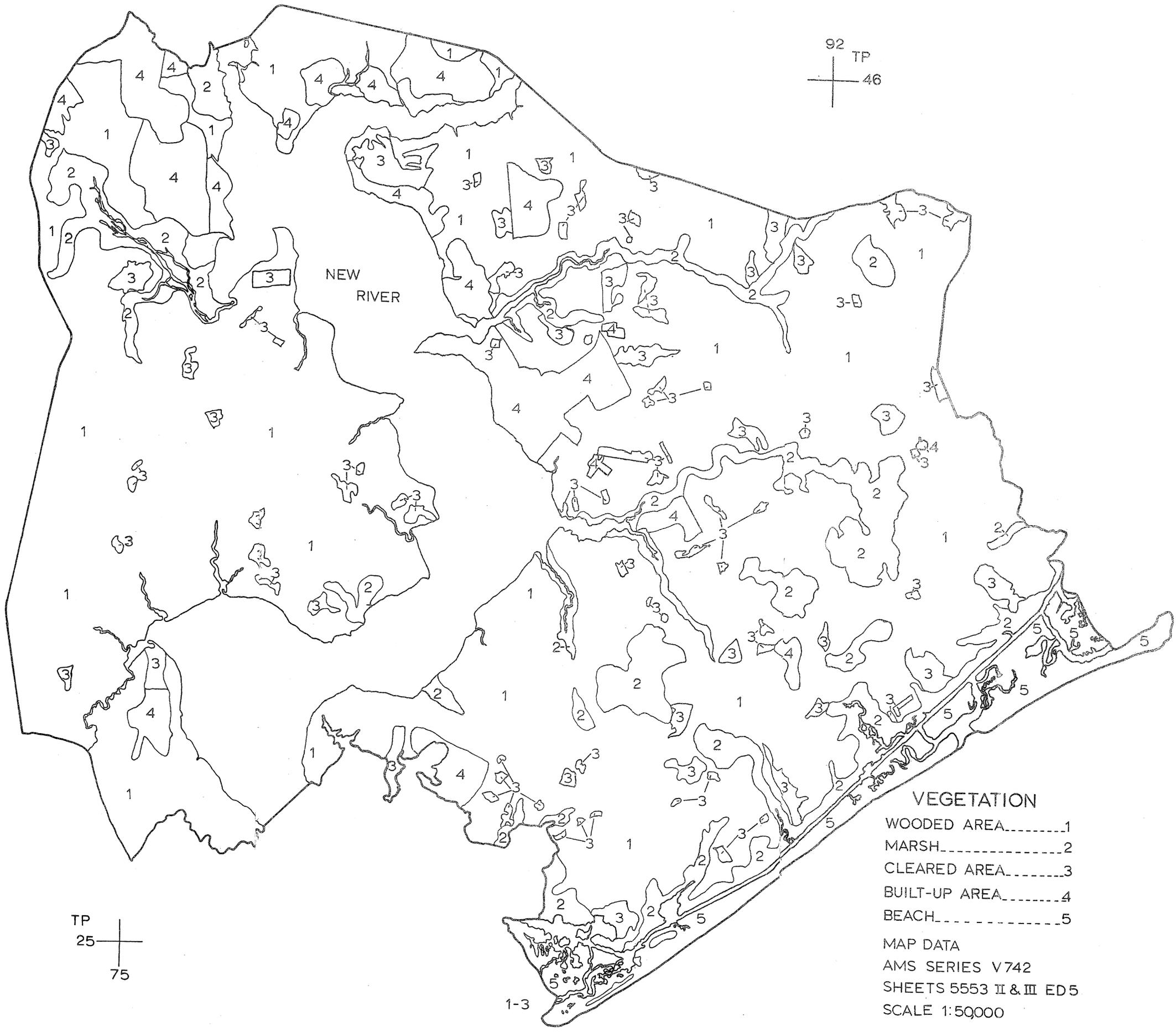
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AMS SERIES V745
MAP DATA
IN FEET
CONTOUR INTERVAL
RELIEF

1-3









NEW RIVER

92 TP
46

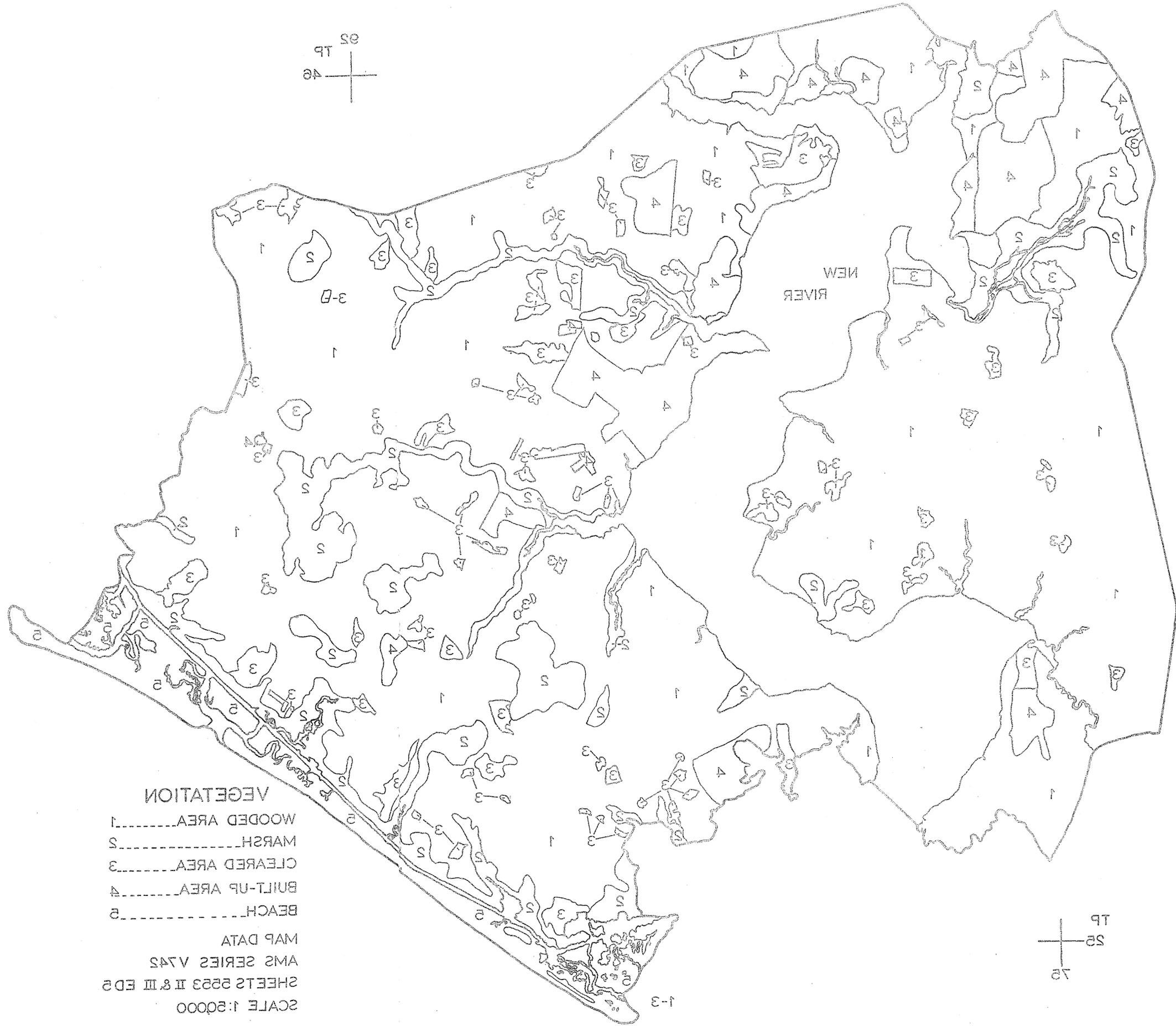
TP
25
75

VEGETATION

- WOODED AREA.....1
- MARSH.....2
- CLEARED AREA.....3
- BUILT-UP AREA.....4
- BEACH.....5

MAP DATA
AMS SERIES V742
SHEETS 5553 II & III ED5
SCALE 1:50000

1-3



SCALE 1:5000
 SHEETS 553 II & III ED2
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 MAP DATA
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 BUILT-UP AREA.....4
 CLEARED AREA.....3
 MARSH.....2
 WOODED AREA.....1

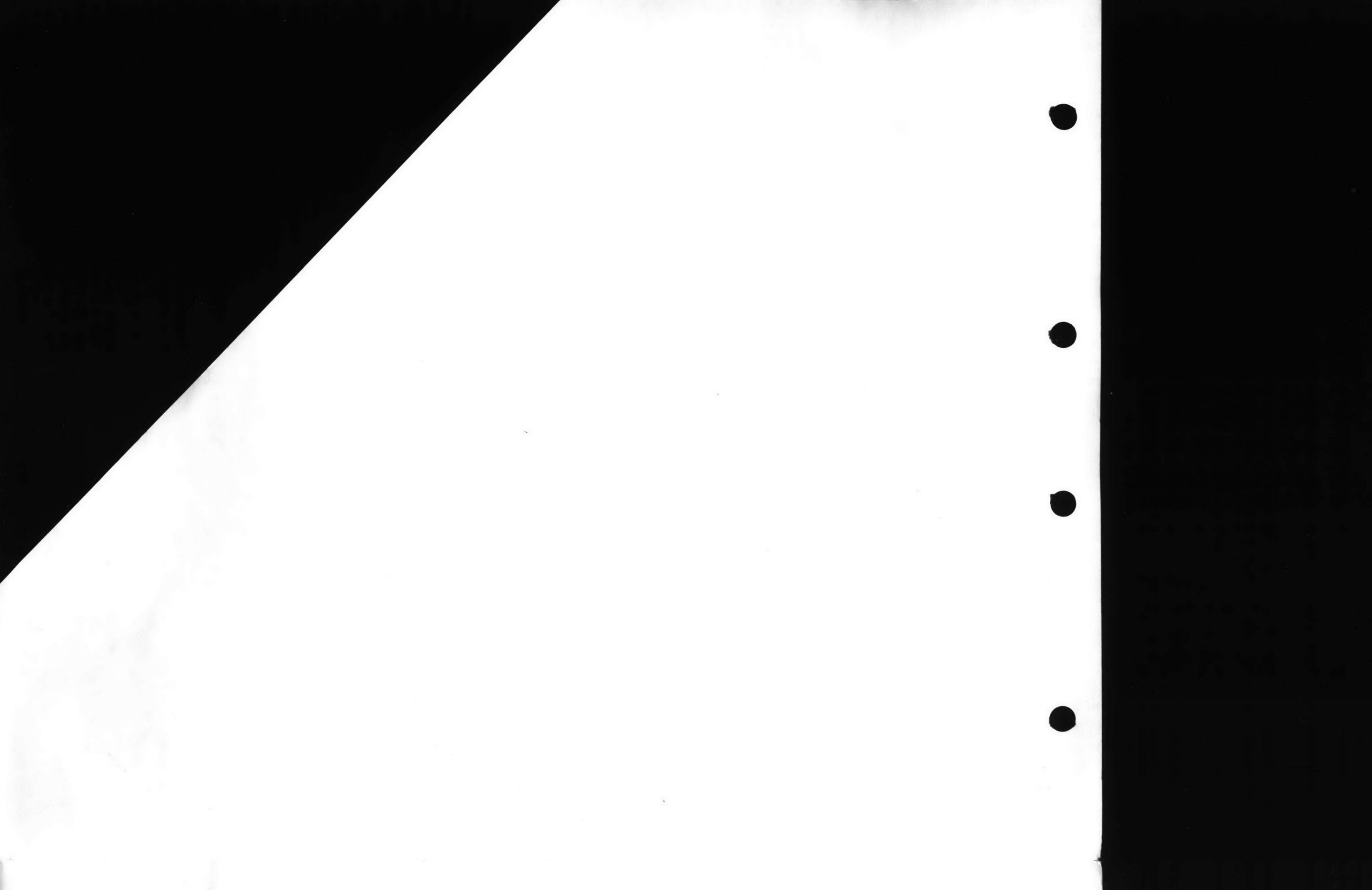
VEGETATION

TP 48
 85

TP 75
 55

1-3







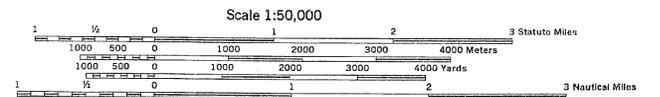
DRAINAGE OVERLAY
NORTH CAROLINA 1:50,000

CAMP LEJEUNE AREA STUDY



PREPARED BY: FORCE TOPOGRAPHIC PLATOON
8TH ENGINEER SUPPORT BATTALION, 2D FSSB
FLEET MARINE FORCE, ATLANTIC
CAMP LEJEUNE, NORTH CAROLINA 28542

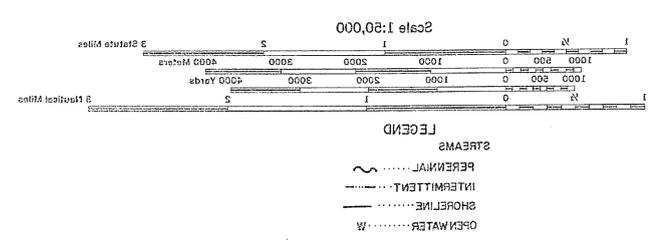
COMPILED IN AUGUST 1984 FROM
CAMP LEJEUNE SPECIAL MAP SHEET V742BC/LEJEUNE
SECTION 9 AND BEST AVAILABLE SOURCES



LEGEND

STREAMS
PERENNIAL
INTERMITTENT
SHORELINE
OPEN WATER W

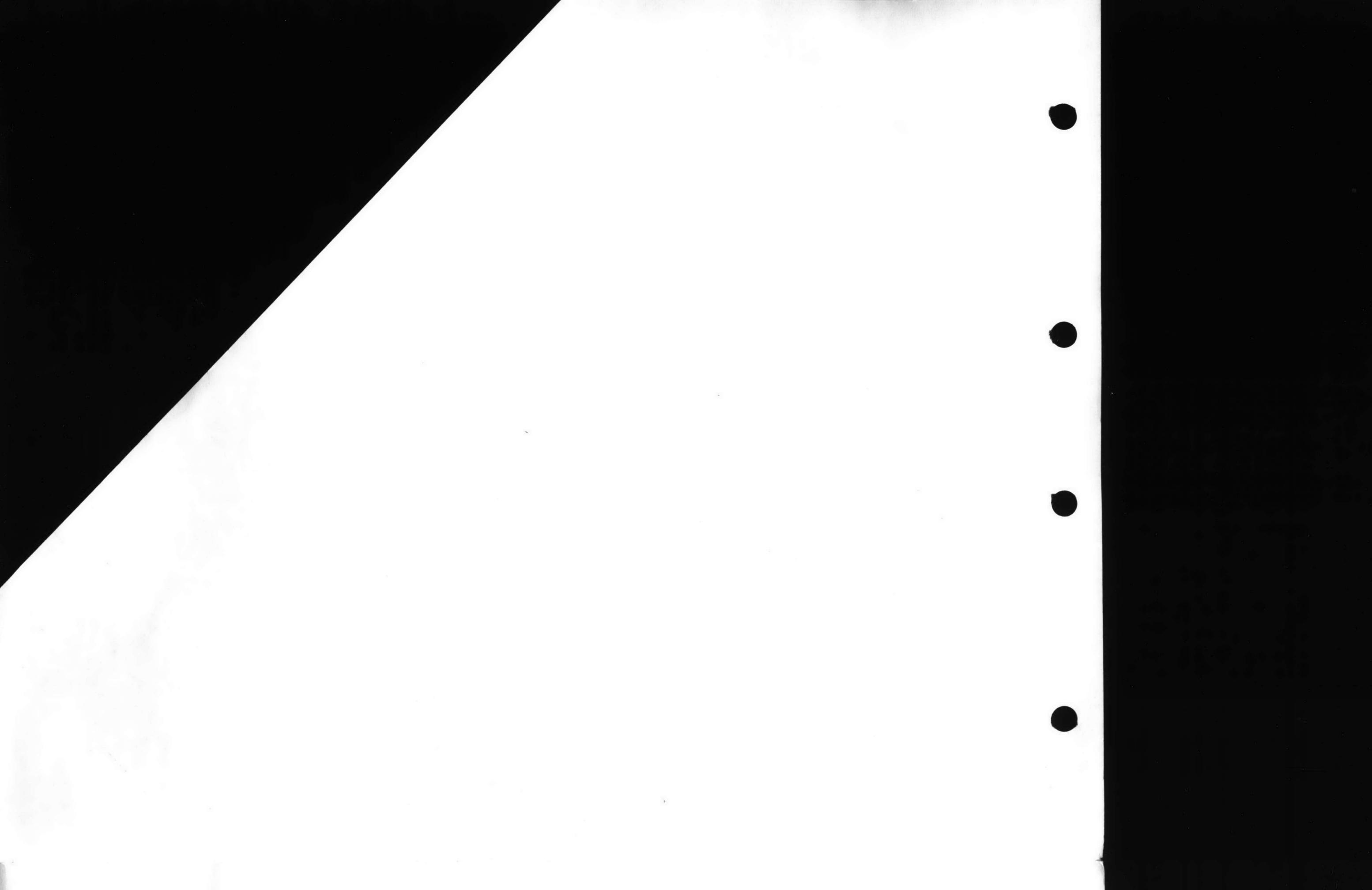
CAMP LEJUNE AREA STUDY



PREPARED BY FORCE TOPOGRAPHIC PLATOON
1ST ENGINEER BATTALION
1ST MARINE BRIGADE
1ST MARINE DIVISION
MARINE CORPS
CAMP LEJUNE, NORTH CAROLINA 28048

CONTROLLED BY MARINE CORPS
MAPS AND ENGINEERING
SECTION 2, WAREHOUSE 100-1000

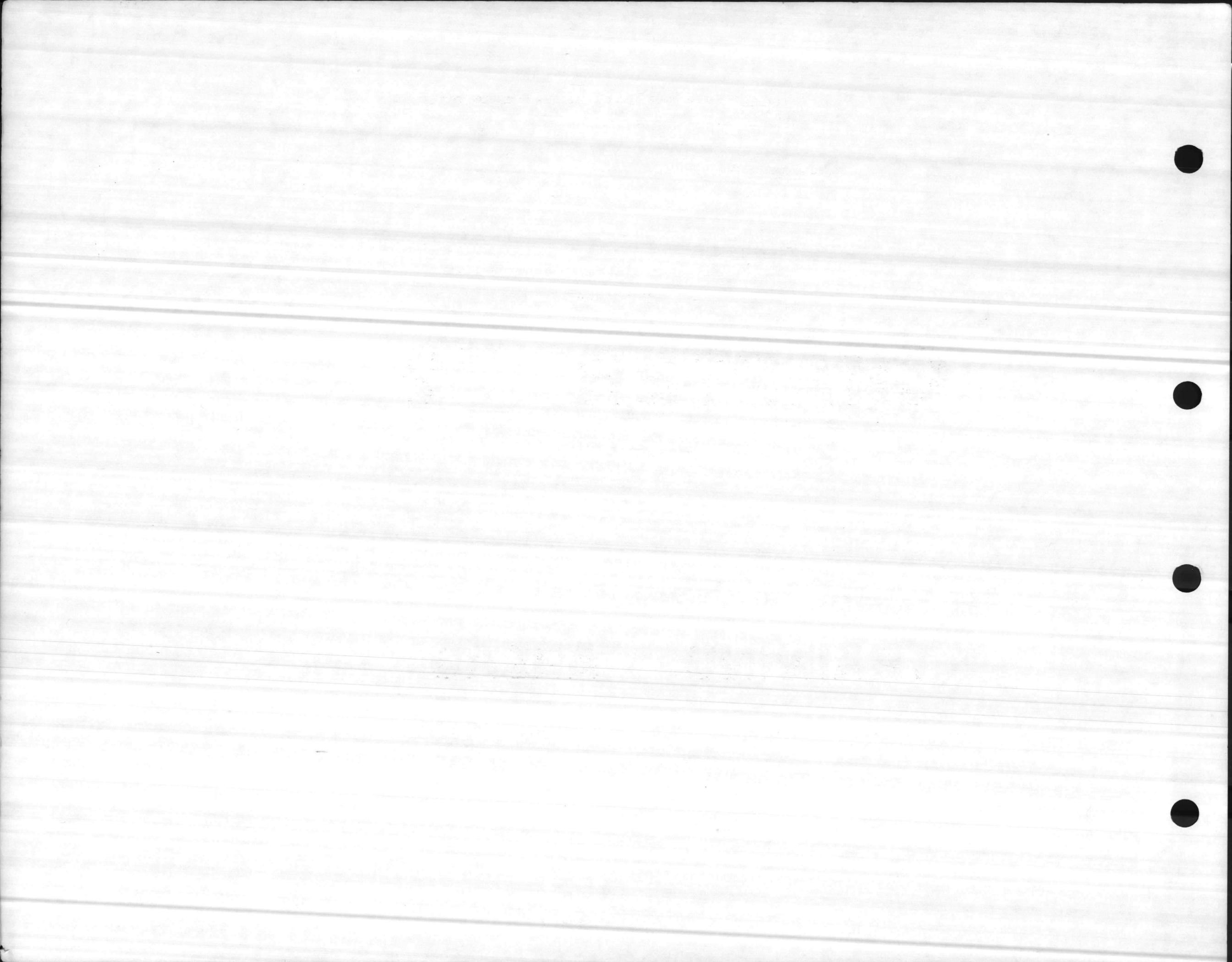






CHAPTER 2

TRAINING AREAS



1. GENERAL. MARINE CORPS BASE CAMP LEJEUNE IS DIVIDED INTO SEVENTEEN ALPHABETICALLY DESIGNATED TRAINING AREAS TO FACILITATE TRAINING COORDINATION AND MANAGEMENT. THE FOLLOWING ACTIVITIES ARE RESPONSIBLE FOR TRAINING FACILITIES MANAGEMENT, MAINTENANCE AND SAFETY/EMERGENCY SERVICES. (FOR EMERGENCY MEDEVAC, CONTACT THE RANGE CONTROL DUTY OFFICER AT THE EXTENSION/FREQUENCY LISTED BELOW.)

<u>ACTIVITY/CALL SIGN</u>	<u>TELEPHONE/FREQUENCY</u>
RANGE CONTROL OFFICER	3065/3066
RANGE CONTROL DUTY OFFICER/BLACKBURN	3064/325.0 UHF OR 38.60 FM (OLD SQUELCH)
RANGE MAINTENANCE OFFICER	5211/3542
ENVIRONMENTAL AFFAIRS DIVISION	5003
EXPLOSIVE ORDNANCE DISPOSAL (EOD)	0558/0382(DWH) 2526/2527 (CDO-AWH)
FIRE DEPARTMENT	3333
PROVOST MARSHAL	2555/2556/2557

2. PURPOSE THE PURPOSE OF THIS CHAPTER IS TO ASSIST COMMANDERS AND OPERATIONS PERSONNEL IN PLANNING TRAINING ACTIVITIES AT THE SMALL UNIT LEVEL. BASE ORDER P11102.1 (SOP FOR RANGE CONTROL OPERATIONS) PROMULGATES SPECIFIC INFORMATION PERTAINING TO TRAINING AREA CHARACTERISTICS, OPERATIONS AND RANGE REGULATIONS. (FOR FURTHER INFORMATION REGARDING TRAINING AREA AND RANGE USE OR RESERVATION PROCEDURES, CONTACT THE RANGE CONTROL OFFICER AT EXTENSIONS 3065/3066.)

3. TRAINING AREA DESCRIPTIONS.

(NOTE: ALL COORDINATES ARE GRID ZONE/100,000 METER SQUARE 18STP UNLESS OTHERWISE INDICATED.)

A. AREA A

(1) LOCATION. AREA A, ALTERNATELY REFERRED TO AS MUMFORD POINT, MONTFORD POINT OR THE CAMP JOHNSON AREA, IS LOCATED IN THE NORTHERN PORTION OF CAMP LEJEUNE. IT IS BOUNDED ON THE NORTH BY NC HIGHWAY 24 (786478 TO 808472), FROM WEST-NORTHWEST TO NORTH-NORTHWEST BY THE CITY OF JACKSONVILLE, NC (781468 TO 786478), TO THE EAST BY SCALES CREEK (801454 TO 809471), AND TO THE SOUTH AND WEST BY THE NEW RIVER FROM SCALES CREEK AT THE SOUTHEAST TO WILSON BAY AT THE WEST-NORTHWEST.

(2) SIZE. THE AREA IS APPROXIMATELY 3400 METERS NORTH TO SOUTH AND 3380 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, SWEET GUM AND MAPLE), VINES AND SCRUBS. SWAMP GRASS MAY BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA A IS DIVIDED INTO FIVE SECTIONS: AA, AB, AC, AD AND AE. SECTIONS AA, AB AND AC ARE MODERATELY TO DENSELY VEGETATED AND DISSECTED BY NUMEROUS TRAILS AND ACCESS ROADS (IMPROVED AND UNIMPROVED) AD AND AE CONTAIN NUMEROUS BUILDINGS UTILIZED AS CLASSROOMS AND BARRACKS.

(7) PRIMARY USE. THE AREA IS USED FOR CONDUCTING FORMAL MILITARY SCHOOLS, BARRACKS AREAS AND SMALL ARMS (PISTOL AND SHOTGUN) TRAINING.

(8) FIRING RANGES. THERE IS ONE LIVE FIRE RANGE (A-1) LOCATED AT THE SOUTHERN TIP OF MUMFORD POINT (789440).

(9) RANGE USE. LIVE FIRING AT RANGE A-1 IS LIMITED TO SMALL ARMS (PISTOL AND SHOTGUN) TRAINING.

(10) SPECIAL INFORMATION. UNITS WILL REMAIN CLEAR OF ALL FOOD PLOTS.

B. AREA B

(1) LOCATION. AREA B IS LOCATED IN THE NORTHWEST CORNER OF CAMP LEJEUNE. THE AREA IS BOUNDED TO THE NORTH BY CAMP GEIGER (744466 TO

TO 755450), TO THE EAST BY MCAS (H), NEW RIVER (755450 TO 744425), TO THE SOUTH BY HICKS RUN (STREAM) (730412 TO 744425) AND TO THE WEST BY U. S. ROUTE 17 (730412 TO 744466).

(2) SIZE. THE AREA IS APPROXIMATELY 5300 METERS NORTH TO SOUTH AND 2100 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND, LOAM, AND MUCK.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, SWEET GUM, POPLAR, ASH, COTTONWOOD AND TUPELO), VINES AND SCRUBS. SWAMP GRASS MAY BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA B IS DIVIDED INTO THREE SECTIONS: BB, BC AND BD. ALL THREE SECTIONS CONTAIN LARGE CLEARED AREAS. AN ACCESS ROAD EXTENDS THROUGH EACH OF THESE SECTIONS.

(7) PRIMARY USE. THE AREA IS USED FOR CONDUCTING INFANTRY UNIT MANEUVERS AND BIVOUAC.

(8) FIRING RANGES. THERE ARE TWO LIVE FIRE RANGES: B-012 WITHIN BC SECTION AND B-014 ON WHICH FIRING IS CONDUCTED FROM BD SECTION INTO BC SECTION.

(9) RANGE USE. B-012 IS USED FOR SMALL ARMS TRAINING (PISTOL AND SHOTGUN). RANGE B-014 IS USED FOR SERVICE RIFLE, M-60 MACHINE GUNS, M-72 ROCKET LAUNCHER AND M-203 GRENADE LAUNCHER FIRING.

(10) SPECIAL INFORMATION. DRINKING WATER OBTAINED FROM STREAMS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

C. AREA C

(1) LOCATION. AREA C IS LOCATED IN THE NORTHERN PORTION OF CAMP LEJEUNE, BETWEEN THE RESIDENTIAL AREAS OF BERKELEY MANOR AND PARADISE POINT. IT IS BORDERED TO THE NORTH BY NORTHEAST CREEK (825447 TO 843452), TO THE EAST BY A LOW-LYING AREA (EXTENDING FROM 843452 TO 849440) AND STONE ROAD (849440 TO 840413), TO THE SOUTH BY THE CONFLUENCE OF BEAVERDAM, BEARHEAD

AND WALLACE CREEKS (844420 TO 840414) AND TO THE WEST BY THE RESIDENTIAL AREA OF PARADISE ISLE (840414 TO 825438).

(2) SIZE. THE AREA IS APPROXIMATELY 3200 METERS NORTH TO SOUTH AND METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. THE SOIL COMPOSITION CONSISTS OF FINE SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, TUPELO, BLACK GUM, SWEET GUM, ASH, COTTONWOOD, POPLAR AND CYPRESS), VINES AND SCRUBS. SWAMP GRASS MAY BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA C IS DIVIDED INTO TWO SECTIONS: CA AND CB. BOTH SECTIONS ARE ADJACENT TO BASE RESIDENTIAL AREAS.

(7) PRIMARY USE. NONE (RESTRICTED AREA)

(8) FIRING RANGES. NONE

(9) RANGE USE. NONE

(10) SPECIAL INFORMATION. MILITARY UNIT TRAINING IS RESTRICTED IN AREA C.

D. AREA D

(1) LOCATION. AREA D IS LOCATED SOUTH OF BERKELEY MANOR RESIDENTIAL AREA AND IS BISECTED BY THE MAINSIDE DEVELOPMENT AREA OF CAMP LEJEUNE. THE NORTHERN HALF OF AREA D IS BORDERED TO THE NORTH BY BERKELEY MANOR RESIDENTIAL AREA (844421 TO 853427 AND 853427 TO 864416), TO THE EAST BY HOLCOMB BOULEVARD (864416 TO 858390) AND TO THE SOUTH AND WEST BY BEAVERDAM CREEK (858390 TO 843402) WHICH EMPTIES INTO WALLACE CREEK. THE SOUTHERN PORTION OF AREA D IS DEFINED TO THE NORTH ALONG A LINE EXTENDING FROM 854365 TO 873384. IT IS BOUNDED TO THE EAST BY SNEADS FERRY ROAD (873384 TO 884362), TO THE SOUTH BY COWHEAD AND FRENCHS CREEK (884362 TO 857355) AND

TO THE WEST BY THE NEW RIVER (857355 TO 855363).

(2) SIZE. THE NORTHERN PORTION OF AREA D IS APPROXIMATELY 3600 METERS NORTH TO SOUTH AND 2100 METERS EAST TO WEST. THE SOUTHERN PORTION OF AREA D IS APPROXIMATELY 2900 METERS NORTH TO SOUTH AND 3000 METERS EAST TO WEST. (WIDTH DIMENSIONS FOR AREA D ARE GIVEN FOR THE WIDEST POINTS OF BOTH THE NORTH AND SOUTH PORTIONS.)

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND AND LOAM.

(4) VEGETATION. VEGETATION WITHIN THE AREA CONSISTS OF TREES (PINE, OAK, ASH, SWEET GUM AND COTTONWOOD), VINES AND SCRUBS. SWAMP GRASS MAY BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA D IS DIVIDED INTO THREE SECTIONS: DA, DB AND DC. ALL THREE SECTIONS ARE DISSECTED BY A NUMBER OF UNIMPROVED ROADS.

(7) PRIMARY USE. THE AREA IS USED FOR INFANTRY UNIT MANEUVERS.

(8) FIRING RANGES. THERE ARE FIVE LIVE FIRE RANGES CONTAINED WITHIN AREA D: D-9, D-11A, D-27, D-29 AND D-30.

(9) RANGE USE. RANGE D-9 IS THE BASE SPECIAL SERVICES SKEET RANGE. D-11A, NORTH OF THE MAIN SERVICE ROAD IN GRID SQUARES 8736 AND 8737, IS UTILIZED BY THE SECOND TANK BATTALION. D-27 IS AN ASSAULT OF A FORTIFIED POSITION RANGE ON WHICH SERVICE RIFLES, M-60 MACHINE GUNS AND M-72 ROCKET LAUNCHERS CAN BE EMPLOYED. D-29 AND D-30 ARE USED FOR SMALL ARMS TRAINING (RIFLE AND PISTOLS).

(10) SPECIAL INFORMATION. THE FOLLOWING SECTIONS WITHIN AREA D ARE RESTRICTED FOR MILITARY UNIT TRAINING: SECTION DA, RANGE D-11A AND SECTION DC. SKEET RANGE D-9 LOCATED IN SECTION DB, IS ALSO RESTRICTED.

E. AREA E

(1) LOCATION. AREA E, MORE COMMONLY REFERRED TO AS ONSLOW BEACH, IS LOCATED IN THE EXTREME SOUTHEASTERN PORTION OF CAMP LEJEUNE. IT IS

BORDERED TO THE NORTH BY THE INTRACOASTAL WATERWAY (ICW) (844257 TO 932293), TO THE EAST BY THE N-1 IMPACT AREA (932293 TO 933285), TO THE SOUTH BY THE ATLANTIC OCEAN (858233 TO 933285) AND TO THE WEST BY NEW RIVER INLET (858233 TO 844257).

(2) SIZE. THE AREA IS APPROXIMATELY 800 METERS NORTH TO SOUTH AND 9800 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND.

(4) VEGETATION. ONSLOW BEACH IS VOID OF VEGETATION SEAWARD OF THE HIGHWATER MARK. IMMEDIATELY INLAND, PATCHES OF SCRUB AND DWARF PINE WILL BE ENCOUNTERED. SWAMP GRASS EXISTS IN MARSHY/SWAMPY AREAS AND ALONG THE ICW.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 10 PERCENT. (SLOPE RANGE VARIES DUE TO SAND SHIFTING IN REACTION TO COASTAL WINDS.)

(6) AREA SUBDIVISION. NONE

(7) PRIMARY USE. THE AREA IS USED BY INFANTRY UNITS FOR AMPHIBIOUS OPERATIONS AND TRACKED VEHICLE RIVER CROSSING OPERATIONS.

(8) FIRING RANGES. THERE IS ONE LIVE FIRE RANGE (E-1), EXTENDING FROM GRID SQUARE 8824 NORTHEAST ALONG ONSLOW BEACH TO GRID SQUARE 8925.

(9) RANGE USE. HAWK AND REDEYE SURFACE TO AIR MISSILE LIVE FIRING IS CONDUCTED AT RANGE E-1.

(10) SPECIAL INFORMATION. A RESTRICTED AREA EXTENDS FROM RISELEY PIER (903263) NORTHEAST TO THE BORDER OF TRAINING/IMPACT AREA N-1. DURING THE MONTHS OF MAY THROUGH OCTOBER, CERTAIN AREAS ALONG ONSLOW BEACH WILL BE LIMITED FOR TRAINING DUE TO NESTING ACTIVITIES OF LOGGERHEAD TURTLES. THE DISTURBANCE OF THESE BEACH AREAS (TO INCLUDE VEHICULAR TRAFFIC AND THE CONSTRUCTION OF TANK TRAPS) IS PROHIBITED. USE OF DESIGNATED INGRESS AND EGRESS ROUTES FOR THIS AREA IS MANDATORY.

F. AREA F

(1) LOCATION. AREA F IS LOCATED IN THE NORTHEASTERN PORTION OF CAMP

LEJEUNE. THE AREA IS BORDERED TO THE NORTH BY U. S. HIGHWAY 24 (896432 TO 940433), TO THE EAST BY TRAINING AREA Q (940433 TO 941369), TO THE SOUTH BY TRAINING AREA G (941369 TO 885362) AND TO THE SOUTHWEST, WEST AND NORTHWEST BY SNEADS FERRY ROAD, HOLCOMB BOULEVARD AND TRAINING AREA R (885362 TO 866399, 866399 TO 864416 AND 864416 TO 896432).

(2) SIZE. THE AREA IS APPROXIMATELY 5500 METERS NORTH TO SOUTH ALONG GRID LINE 90 AND APPROXIMATELY 7400 METERS EAST TO WEST ALONG GRID LINE 40.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND, LOAM AND MUCK.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, SWEET GUM, TUPELO, POPLAR, CYPRESS AND CEDAR), VINES AND SCRUBS. SWAMP GRASS MAY BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA F IS DIVIDED INTO FOUR SECTIONS: FA, FB, FC AND FD. ROADS AND TRAILS EXTEND THROUGHOUT ALL FOUR SECTIONS AND SEVERAL STREAMS/CREEKS DISSECT THE AREA.

(7) PRIMARY USE. THE AREA IS USED BY MILITARY UNITS FOR MANEUVERS, BIVOUAC AND WEAPONS TRAINING.

(8) FIRING RANGES. THERE ARE TEN LIVE FIRE RANGES LOCATED WITHIN AREA F: F-2, F-3, F-4, F-5, F-6, F-9, F-10, F-11, F-12 AND F-18.

(9) RANGE USE. AREA F RANGES ARE AUTHORIZED FOR SPECIFIC USES. F-2: SMALL ARMS. F-3: CREW-SERVED WEAPONS. F-4: SMALL ARMS. F-5: SMALL ARMS AND M-60 MACHINE GUNS. F-6: HAND GRENADES. F-9: SERVICE PISTOL. F-10: SMALL ARMS AND M-60 MACHINE GUNS. F-11: RIFLE AND PISTOL. F-12: RIFLE AND M-60 MACHINE GUNS. F-18: RIFLE AND THE 14.5 MM SUB CALIBER ARTILLERY ROUNDS.

(10) SPECIAL INFORMATION. THE CAMP LEJEUNE SPECIAL MAP INDICATES THAT RANGE F-13 IS NO LONGER USED FOR LIVE FIRING. RESTRICTED AREAS WITHIN AREA F INCLUDE THAT PORTION OF THE FAD AREA THAT EXTENDS FROM AREA

R INTO AREA F IN GRID SQUARE 8742 AND THOSE AREAS CONSPICUOUSLY MARKED AS RED COCKADED WOODPECKER HABITAT SITES (WHICH ARE OFF LIMITS TO TRACKED VEHICLES). WHEN LIVE FIRING IS BEING CONDUCTED ON ANY RANGE, THE REMAINDER OF AREA F IS RESTRICTED TO ALL OTHER PERSONNEL/ACTIVITY. DRINKING WATER OBTAINED FROM STREAMS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

G. AREA G

(1) LOCATION. AREA G IS LOCATED IN THE SOUTHEAST CORNER OF CAMP LEJEUNE. THE AREA IS BORDERED TO THE NORTH BY TRAINING AREAS F AND Q, AND MILL CREEK (885362 TO 941369, 941369 TO 967355 AND 967355 TO 978353), TO THE EAST BY TRAINING AREA Q AND BEAR CREEK (951369 TO 967355 AND 979352 TO 978345), TO THE SOUTH BY THE INTRACOASTAL WATERWAY AND THE N-1 TRAINING/IMPACT AREA (911274 TO 944306 AND 944306 TO 979343), AND TO THE WEST BY SNEADS FERRY ROAD AND TRAINING AREAS H AND I (885362 TO 901291 TO 911274).

(2) SIZE. THE AREA IS APPROXIMATELY 8500 METERS NORTH TO SOUTH ALONG GRID LINE 92 AND APPROXIMATELY 8800 METERS EAST TO WEST ALONG GRID LINE 35. THERE IS A BREAK OF APPROXIMATELY 1300 METERS ALONG GRID LINE 35 THAT LIES WITHIN THE BOUNDARY OF TRAINING AREA Q.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND, LOAM AND MUCK.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, SWEET GUM, TUPELO, CEDAR, ASH, OAK, COTTONWOOD AND POPLAR), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA G IS DIVIDED INTO NINE SECTIONS: GA, GB, GC, GD, GE, GF, GG, GH AND GI.

(7) PRIMARY USE. THE AREA IS DEVOTED PRIMARILY TO LIVE FIRING AND IMPACT ZONES FOR MILITARY WEAPONS (SEE RANGE USE).

(8) FIRING RANGES. THERE ARE ELEVEN LIVE FIRE/EOD RANGES LOCATED

WITHIN AREA G. THEY ARE: G-3, G-4, G-4A, G-5, G-6, G-7, G-8, G-9, ONSLOW BEACH NORTH TOWER (SECTION G-H), G-10 IMPACT AREA AND G-10A.

(9) RANGE USE. SPECIFIC AREA G RANGES ARE AUTHORIZED FOR THE FOLLOWING WEAPONS/ORDNANCE EMPLOYMENT; RANGE G-3: ALL INFANTRY WEAPONS EXCEPT .50 CALIBER MACHINE GUN, 106MM RECOILLESS RIFLE AND HAND GRENADES. G-4: DEMOLITION RANGE, LINEAR ROCKETS, M68A1 (INERT) CHARGES AND LAND MINES. G-4A: EOD RANGE. G-5: MECHANIZED TANK GUNNERY RANGE, 105MM TANK MAIN GUN, MACHINE GUN, M-16, 106MM RECOILLESS RIFLE AND ARTILLERY (DIRECT FIRE). G-6: TANK GUNNERY RANGE FOR TABLES 1 THROUGH 8 (MODIFIED TABLE 9), 105MM TANK MAIN GUN, ARTILLERY (DIRECT FIRE), MACHINE GUN, M-16 AND 106MM RECOILLESS RIFLE. G-7: 105MM TANK MAIN GUN, FIELD ARTILLERY (DIRECT FIRE), MACHINE GUN, M-16 AND 106MM RECOILLESS RIFLE. G-8: M-203 GRENADE LAUNCHER RANGE. G-9: LAAW RANGE FOR M-72 ROCKET LAUNCHER. ONSLOW BEACH NORTH TOWER: ASSAULT AMPHIBIAN VEHICLE MACHINE GUN RANGE FOR M-60 AND M-85 MACHINE GUNS (MOUNTED ON LVTP-7). G-10 IMPACT AREA: BOMBING AND TARGET RANGE FOR AIRCRAFT ORDNANCE (NOT TO EXCEED NET EXPLOSIVE WEIGHT OF 250 LBS TNT EQUIVALENCY), ARTILLERY, MORTAR AND TOW (HEAT AND PRACTICE). G-10A: EOD DISPOSAL SITE.

(10) SPECIAL INFORMATION. RESTRICTED AREAS WITHIN AREA G ARE CONSPICUOUSLY MARKED FOR THE RED COCKADED WOODPECKER HABITAT SITES (WHICH ARE OFF-LIMITS TO TRACKED VEHICLES). PROHIBITED AREAS INCLUDE THE LIVE MINEFIELD (936310 TO 939306 TO 943309 TO 943313), THE G-4A AND THE G-10 HIGH EXPLOSIVE IMPACT AREAS. EOD PERSONNEL ARE REQUIRED TO BE PRESENT DURING DOWN RANGE MOVEMENTS ON RANGES G-5, G-7, G-8 AND G-9. DRINKING WATER OBTAINED FROM STREAMS WITHIN AREA G MUST BE PURIFIED PRIOR TO CONSUMPTION.

H. AREA H

(1) LOCATION. AREA H IS LOCATED IN THE EASTERN PORTION OF CAMP LEJEUNE ALONG THE NEW RIVER. THE AREA IS BORDERED TO THE NORTH BY FRENCHS CREEK AND THE BASE MAGAZINE AREA (856352 TO 882341 AND 882341 TO 894344), TO THE EAST BY

SNEADS FERRY ROAD (894344 TO 901292), TO THE SOUTH BY TRAINING AREAS I AND J (901292 TO 849312 AND 849312 TO 825303) AND TO THE WEST BY TRAINING AREA I AND THE NEW RIVER (825303 TO 824312 AND 824312 TO 856352).

(2) SIZE. THE AREA IS APPROXIMATELY 5100 METERS NORTH TO SOUTH ALONG GRID LINE 87 AND 6900 METERS EAST TO WEST ALONG GRID LINE 32.

(3) SOIL. SOIL COMPOSITION CONSISTS OF SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, SWEET GUM, OAK, TUPELO, ASH, POPLAR, BLACK GUM, COTTONWOOD, CYPRESS AND CEDAR), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED IN THE EASTERN HALF OF AREA H AND ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 2 TO 5 PERCENT WITH GENTLY ROLLING TERRAIN.

(6) AREA SUBDIVISION. AREA H IS DIVIDED INTO SIX SECTIONS: HA, HB, HC, HD, HE AND HF, ALL WHICH ARE DISSECTED BY IMPROVED AND UNIMPROVED ROADS. THERE EXIST NUMEROUS AREAS OF STANDING WATER THAT WILL REQUIRE MATTING TO ACCOMMODATE WHEELED TRAFFIC.

(7) PRIMARY USE. THE AREA IS USED BY MILITARY UNITS FOR MANEUVERS AND BIVOUAC.

(8) FIRING RANGES. NONE

(9) RANGE USE. NONE

(10) SPECIAL INFORMATION. DRINKING WATER OBTAINED FROM STREAMS/CREEKS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION. NO BIVOUACKING IS PERMITTED WITHIN COMBAT TOWN, WHICH IS LOCATED IN THE NORTH NORTHWEST PORTION OF SECTION HF.

I. AREA I

(1) LOCATION. AREA I IS LOCATED IN THE SOUTHERN PORTION OF CAMP LEJEUNE. IT IS BOUNDED TO THE NORTH BY MARINES ROAD AND TRAINING AREA H

(849310 TO 856310 AND 856310 TO 901292), TO THE EAST BY TRAINING AREA G (901292 TO 911274), TO THE SOUTH BY THE INTRACOASTAL WATERWAY (911274 TO 852258) AND TO THE WEST BY THE NEW RIVER, HARVEYS POINT AREA AND TRAINING AREA J (852258 TO 840275, 840275 TO 845292 AND 845292 TO 849312).

(2) SIZE. THE AREA IS APPROXIMATELY 6600 METERS NORTH TO SOUTH AND 4700 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, CYPRESS, SWEET GUM, CEDAR, TUPELO, MAPLE, OAK, ASH AND COTTONWOOD), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA I IS DIVIDED INTO SIX SECTIONS: IA, IB, IC, ID, IE AND IF. ALL SECTIONS CONTAIN DISSECTING ROADS AND CLEARED AREAS.

(7) PRIMARY USE. THE AREA IS USED FOR INFANTRY UNIT MANEUVERS, BIVOUAC AND SMALL ARMS TRAINING.

(8) FIRING RANGES. THERE ARE TWO LIVE FIRE RANGES IN AREA I: I-1 (843276) AND I-2 (845282).

(9) RANGE USE. LIVE FIRING AT RANGE I-1 IS LIMITED TO SMALL ARMS (PISTOL AND SHOTGUN) TRAINING AND RANGE I-2 IS USED FOR DEMOLITIONS, LINEAR ROCKETS, M68A1 (INERT) AND LAND MINE TRAINING.

(10) SPECIAL INFORMATION. DRINKING WATER OBTAINED FROM STREAMS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

J. AREA J

(1) LOCATION. AREA J IS LOCATED IN THE SOUTHERN PORTION OF CAMP LEJEUNE ALONG THE EASTERN SIDE OF THE NEW RIVER. IT IS BORDERED TO THE NORTH AND SOUTH BY THE NEW RIVER AND TRAINING AREA H (800309 TO 82331 AND

825303 TO 849312), TO THE EAST BY AREA I (849312 TO 797289) AND TO THE WEST BY STONE BAY (797289 TO 800309).

(2) SIZE. THE AREA IS APPROXIMATELY 2900 METERS NORTH TO SOUTH AND 5100 METERS EAST TO WEST AT ITS WIDEST POINTS WITH GENTLE ROLLING TERRAIN.

(3) SOIL. SOIL COMPOSITION CONSISTS OF FINE SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, ASH, SWEET GUM, COTTONWOOD, TUPELO AND CEDAR), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA J IS DIVIDED INTO FOUR SECTIONS: JA, JB, JC AND JD. ALL SECTIONS CONTAIN DISSECTING ROADS AND CLEARED AREAS.

(7) PRIMARY USE. THE AREA IS USED FOR CONDUCTING FORMAL MILITARY SCHOOLS, BARRACKS AREAS AND AMTRACK MANEUVERS. IT IS ALSO USED BY INFANTRY UNITS FOR BIVOUAC AND MANEUVERS.

(8) FIRING RANGES. THERE ARE TWO FIRING RANGES WITHIN AREA J, BOTH ARE DESIGNATED AS J-2. THE FIRING POSITIONS ARE LOCATED IN AREA H, SECTION HC (826305 TO 828306).

(9) RANGE USE. LIVE FIRING AT RANGES J-2 ARE CONDUCTED BY TANKS, AMTRACKS AND LAV'S USING M-16 .22 CALIBER RIM-FIRING DEVICE AND THE BREWSTER DEVICE FOR 105MM TANK GUN.

(10) SPECIAL INFORMATION. THE SOUTHERN PORTION OF SECTION JA (834280 TO 841281 TO 840275 TO 835276) IS RESTRICTED BY THE ENGINEER SCHOOL FOR DEMOLITIONS. SECTION JC SOUTH OF 810296 TO 820296 (JARRETT'S POINT), IS RESTRICTED TO INFANTRY TRAINING. JARRETT'S POINT IS ONLY USED TO CONDUCT HELICOPTER EXTERNAL LIFTS USING HST UNITS. THIS AREA IS DESIGNATED AS AN ARCHAEOLOGICAL/HISTORICAL SITE. ROAD GRADING AND ANY OTHER ENGINEER TRAINING WHICH WILL DISTURB THE SOIL IS PROHIBITED WITHOUT WRITTEN CONSENT FROM THE AC/S, TRAINING, MCB, CAMP LEJEUNE. UNITS WILL REMAIN CLEAR OF

OF ALL FOOD PLOTS. DRINKING WATER OBTAINED FROM STREAMS/CREEKS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

K. AREA K

(1) LOCATION. AREA K IS LOCATED IN THE CENTRAL PORTION OF CAMP LEJEUNE ON THE WESTERN SIDE OF THE NEW RIVER. THE AREA IS BORDERED TO THE NORTH BY TRAINING AREA M, LEWIS CREEK AND THE NEW RIVER (MORGAN BAY SECTOR) (771378 TO 792389, 792389 TO 794402 AND 794402 TO 819382), TO THE EAST BY THE NEW RIVER (FARNELL BAY AND GREY POINT SECTORS) (819382 TO 826340), TO THE SOUTH BY THE NEW RIVER (GREY POINT SECTOR AND STONE BAY) (826340 TO 776335) AND TO THE WEST BY MILL CREEK AND TRAINING AREA M (776335 TO 775352 AND 775352 TO 771378).

(2) SIZE. THE AREA IS APPROXIMATELY 7700 METERS NORTH TO SOUTH AND 5100 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF LOAM AND SAND.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, ASH, TUPELO, SWEET GUM, COTTONWOOD AND CYPRESS), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA K IS DIVIDED INTO TWO SECTIONS: K AND K-2 IMPACT AREA. NUMEROUS ROADS AND TRAILS DISSECT BOTH SECTIONS.

(7) PRIMARY USE. THE AREA IS USED FOR CONDUCTING INFANTRY UNIT MANEUVERS AND AS A FIRING RANGE IMPACT AREA.

(8) FIRING RANGES. AREA K CONTAINS TWENTY-TWO LIVE FIRING RANGES: K-2A, K-211, K-212, K-301, K-302, K-303, K-304, K-305, K-309, K-315, K-317, K-321, K-322, K-323, K-325, K-326, K-402, K-405, K-406A, K-406B, K-407 AND K-408.

(9) RANGE USE. SPECIFIC AREA K RANGES ARE AUTHORIZED FOR THE FOLLOWING WEAPONS/ORDNANCE EMPLOYMENT; K-2A: EOD DISPOSAL SITE. K-211: M-203 AND

MK-19 GRENADE LAUNCHERS. K-212: SERVICE WEAPONS. K-301: M-72, 60MM/81MM MORTARS. K-302: SERVICE RIFLES. K-303: SERVICE RIFLES, 60MM/81MM MORTARS, M-60 MACHINE GUNS AND M-203S. K-304: HELICOPTER DOOR GUNNERY RANGE. K-305: ALL INFANTRY WEAPONS EXCEPT .50 CALIBER MACHINE GUNS, 106MM RECOILLESS RIFLES AND HAND GRENADES. K-309: M-60 MACHINE GUN, M-72 ROCKET LAUNCHER, SERVICE RIFLES AND 60MM/81MM MORTARS. K-315: RIFLES, PISTOLS AND SHOTGUNS. K-317; RIFLES, PISTOLS AND SHOTGUNS. K-321: RIFLES, PISTOLS, SHOTGUNS AND 60MM/81MM MORTARS. K-322: RIFLES, PISTOLS AND SHOTGUNS. K-323: M-203 GRENADE LAUNCHERS. K-325: M-72 ROCKET LAUNCHER. K-326: EOD DISPOSAL SITE. K-402: RIFLES, M-60 MACHINE GUNS AND M-72 ROCKET LAUNCHERS. K-405: HAND GRENADES. K-406A: RIFLES, PISTOLS AND SHOTGUNS. K-406B: DEMOLITIONS AND CLAYMORE MINES. K-407: RIFLES AND PISTOLS. K-408: RIFLES, PISTOLS AND SHOTGUNS.

(10) SPECIAL INFORMATION. NO TRAINING WILL BE SCHEDULED ON THE DOWN-RANGE PORTIONS OF RANGES K-211, K-301, K-303, K-305, K-323, K-325 AND K-405 UNLESS ACCOMPANIED BY EOD PERSONNEL. RANGE K-326 IS A HAZARDOUS HIGH-EXPLOSIVE AREA. UNITS WILL REMAIN CLEAR OF ALL FOOD PLOTS. DRINKING WATER OBTAINED FROM STREAMS/CREEKS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

L. AREA L

(1) LOCATION. AREA L IS LOCATED IN THE SOUTHWEST PORTION OF CAMP LEJEUNE. IT IS BORDERED TO THE NORTH BY TRAINING AREA M (728352 TO 772351), TO THE EAST BY MILL CREEK AND THE NEW RIVER (772351 TO 774334 AND 774334 TO 786279), TO THE SOUTH BY EVERETT CREEK (786279 TO 752271) AND TO THE WEST BY NC ROUTE 210 AND U. S. ROUTE 17 (752271 TO 727301 AND 727301 TO 728352).

(2) SIZE. THE AREA IS APPROXIMATELY 7800 METERS NORTH TO SOUTH AND 4000 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF SAND, LOAM AND MUCK.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, ASH, SWEET GUM, COTTONWOOD, TUPELO AND CEDAR), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA L IS DIVIDED INTO THREE SECTIONS: LA, LB AND LC. ALL SECTIONS CONTAIN DISSECTING ROADS AND CLEARED AREAS.

(7) PRIMARY USE. THE AREA IS USED FOR CONDUCTING FORMAL BASIC SERVICE RIFLE TRAINING AND OCCASIONAL INFANTRY UNIT MANEUVERS.

(8) FIRING RANGES. THERE ARE TWO FIRING RANGES IN AREA L; L-5 AND THE BASE RIFLE RANGE.

(9) RANGE USE. RANGE L-5 IS AUTHORIZED FOR ALL INFANTRY WEAPONS EXCEPT .50 CALIBER MACHINE GUNS AND 60MM/81MM MORTARS. THE BASE RIFLE RANGE IS LIMITED TO THE SERVICE RIFLE AND PISTOL.

(10) SPECIAL INFORMATION. UNITS WILL REMAIN CLEAR OF ALL FOOD PLOTS. DRINKING WATER OBTAINED FROM STREAMS/CREEKS MUST BE PURIFIED PRIOR TO CONSUMPTION.

M. AREA M

(1) LOCATION. AREA M IS LOCATED IN THE WESTERN PORTION OF CAMP LEJEUNE. IT IS BORDERED TO THE NORTH BY HICKS RUN CREEK, SOUTHWEST CREEK AND THE NEW RIVER (731411 TO 746424, 746424 TO 777405 AND 777405 TO 791422), TO THE WEST BY THE NEW RIVER AND TRAINING AREA K (791422 TO 793403 AND 793403 TO 792381), TO THE SOUTH BY TRAINING AREA K, MILL CREEK AND TRAINING AREA L (792381 TO 775353, 775353 TO 772352 AND 772352 TO 728352) AND TO THE WEST BY U. S. ROUTE 17 (728352 TO 731411).

(2) SIZE. THE AREA IS APPROXIMATELY 7100 METERS NORTH TO SOUTH AND APPROXIMATELY 5900 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF LOAM, SAND AND MUCK.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, ASH, SWEET GUM, MAPLE, COTTONWOOD, TUPELO AND CEDAR), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA M IS DIVIDED INTO SIX SECTIONS: MA, MB, MC, MD, ME AND MF. NUMEROUS STREAMS/CREEKS AND ROADS DISSECT THIS TRAINING AREA.

(7) PRIMARY USE. THE AREA IS USED EXTENSIVELY FOR INFANTRY MANEUVERS AND TRAINING.

(8) FIRING RANGES. NONE

(9) RANGE USE. NONE

(10) SPECIAL INFORMATION. UNITS WILL REMAIN CLEAR OF ALL FOOD PLOTS. DRINKING WATER OBTAINED FROM STREAMS/CREEKS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION. FIRING RANGES M-113, 115 AND 122 ARE NO LONGER IN USE.

N. AREA N-1

(1) LOCATION. AREA N-1 IS LOCATED IN THE SOUTHEAST PORTION OF CAMP LEJEUNE. ALSO KNOWN AS BT-3, IT IS BORDERED TO THE NORTH BY TRAINING AREA G AND SAUNDERS CREEK (944311 TO 978343 AND 991324 TO 18STU003333), TO THE EAST BY BEAR CREEK AND BEAR INLET (978343 TO 991324 AND 18STU003333 TO 18STU004327), TO THE SOUTH BY THE ATLANTIC OCEAN (18STU004327 TO 944294) AND TO THE WEST BY TRAINING AREAS E AND G (944294 TO 944306 AND 944306 TO 944311).

(2) SIZE. THE AREA IS APPROXIMATELY 2700 METERS NORTH TO SOUTH AND APPROXIMATELY 6900 METERS EAST NORTHEAST TO WEST SOUTHWEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSIST OF FINE SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF PINE TREES, VINES AND SCRUBS. THE AREA IS NEAR VOID OF VEGETATION DUE TO RANGE USE.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. NONE

(7) PRIMARY USE. BOMBING AND TARGET RANGE.

(8) FIRING RANGES. THERE IS ONLY ONE FIRING RANGE LOCATED IN AREA N-1; BT-3.

(9) RANGE USE. AREA N-1 IS A HIGH EXPLOSIVE IMPACT AREA FOR USE BY AIRCRAFT (ORDNANCE IS NOT TO EXCEED 250 LBS OF TNT EQUIVALENCY). ALL TYPES OF ARTILLERY, MORTAR, TANK, MACHINE GUN, 106MM RECOILLESS RIFLE, RIFLE AND TOW MISSILES (FIRED FROM ROTARY AIRCRAFT) ARE ALSO PERMITTED.

(10) SPECIAL INFORMATION. THE N-1 IMPACT AREA IS PROHIBITED TO ALL PERSONNEL AND CAN ONLY BE ENTERED BY EOD PERSONNEL WITH THE PERMISSION OF THE RANGE CONTROL OFFICER (RCO).

O. AREA Q.

(1) LOCATION. AREA Q IS LOCATED IN THE EASTERN PORTION OF CAMP LEJEUNE. IT IS BORDERED TO THE NORTH BY THE TOWN OF HUBERT (939433 TO 954428), TO THE EAST BY NC ROUTE 172 AND BEAR CREEK (954428 TO 962374 AND 962374 TO 968355), TO THE SOUTH BY TRAINING AREA G (968355 TO 947332) AND TO THE WEST BY TRAINING AREAS G (G-10 IMPACT AREA) AND AREA F (947332 TO 941369 AND 941369 TO 939433).

(2) SIZE. THE AREA IS APPROXIMATELY 10,100 METERS NORTH TO SOUTH AND APPROXIMATELY 1600 METERS EAST TO WEST AT ITS WIDEST POINTS.

(3) SOIL. SOIL COMPOSITION CONSISTS OF LOAM AND FINE SAND.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, SWEET GUM, MAPLE, ASH AND TUPELO), VINES AND SCRUBS. SWAMP GRASS WILL BE ENCOUNTERED ALONG STREAM/CREEK BEDS AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA Q IS DIVIDED INTO TWO SECTIONS: QA AND QB. NUMEROUS STREAMS AND ROADS DISSECT BOTH SECTIONS.

(7) PRIMARY USE. THE AREA IS USED FOR CONDUCTING INFANTRY UNIT MANEUVERS AND BIVOUAC.

(8) FIRING RANGES. NONE

(9) RANGE USE. NONE

(10) SPECIAL INFORMATION. UNITS WILL REMAIN CLEAR OF ALL FOOD PLOTS. SECTION QB IS RESTRICTED TO DIVISION TRAINING. DRINKING WATER OBTAINED FROM STREAMS/CREEKS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

P. AREA R

(1) LOCATION. AREA R IS LOCATED IN THE NORTHERN PORTION OF CAMP LEJEUNE. IT IS BORDERED TO THE NORTH BY NC HIGHWAY 24 (853451 TO 897431), TO THE EAST BY TRAINING AREA F (897431 TO 883417), TO THE SOUTH BY WALLACE CREEK (883417 TO 864416) AND TO THE WEST BY THE CAMP LEJEUNE RAILROAD ADJACENT TO HOLCOMB BOULEVARD (864416 TO 853451).

(2) SIZE. THE AREA IS APPROXIMATELY 1900 METERS NORTH TO SOUTH ALONG GRID LINE 87 AND 3700 METERS EAST TO WEST ALONG GRID LINE 43.

(3) SOIL. SOIL COMPOSITION CONSISTS OF SAND AND LOAM.

(4) VEGETATION. VEGETATION CONSISTS OF TREES (PINE, OAK, SWEET GUM, ASH, COTTONWOOD AND TUPELO), VINES AND SCRUBS. SWAMP GRASS IS FOUND ALONG WALLACE CREEK AND AREAS OF STANDING WATER.

(5) SLOPE RANGE. THE AREA RANGES IN SLOPE FROM 0 TO 5 PERCENT.

(6) AREA SUBDIVISION. AREA R IS DIVIDED INTO TWO SECTIONS; RA AND RB. BOTH ARE DISSECTED BY IMPROVED AND UNIMPROVED ROADS.

(7) PRIMARY USE. THE AREA IS USED FOR INFANTRY UNIT MANEUVERS AND BIVOUAC.

(8) FIRING RANGES. NONE

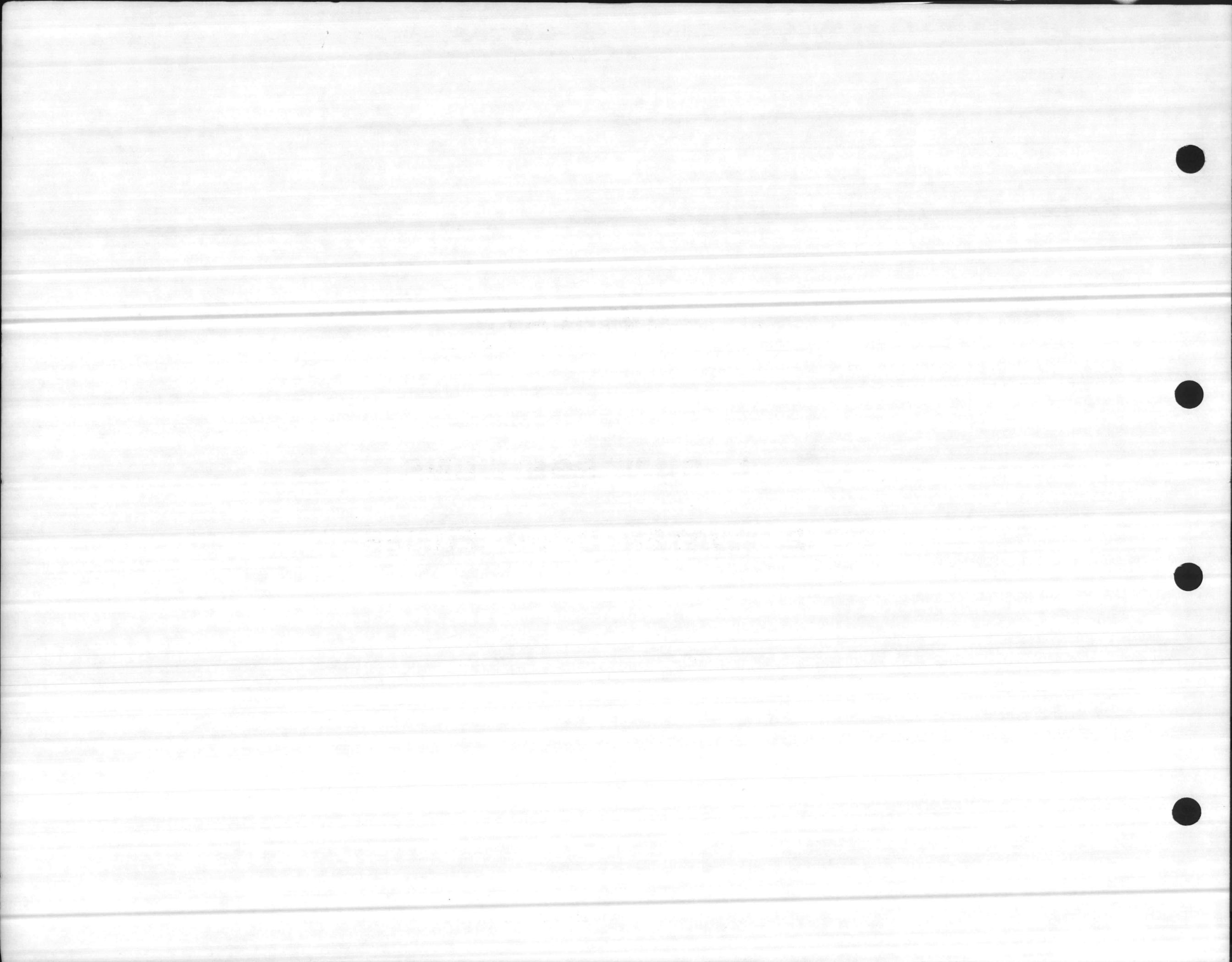
(9) RANGE USE. NONE

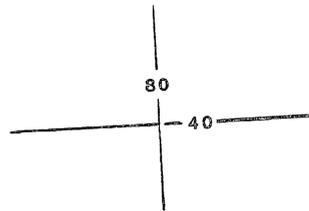
(10) SPECIAL INFORMATION. THE FAD AREA WITHIN GRID SQUARES 8742 AND 8743 IS RESTRICTED AND IS NOT AVAILABLE FOR TRAINING. UNITS WILL REMAIN CLEAR OF ALL FOOD PLOTS. DRINKING WATER OBTAINED FROM STREAMS/CREEKS WITHIN THIS AREA MUST BE PURIFIED PRIOR TO CONSUMPTION.

OVERLAYS

1. GUN POSITIONS

2. WATER DROP ZONES





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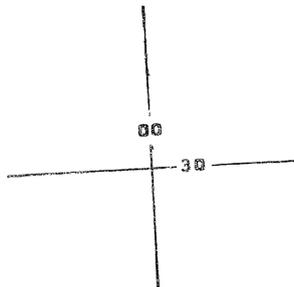
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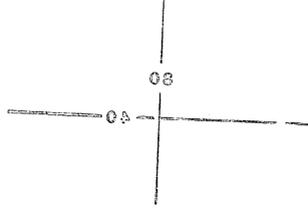
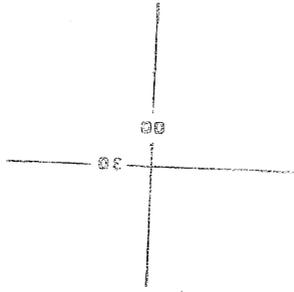
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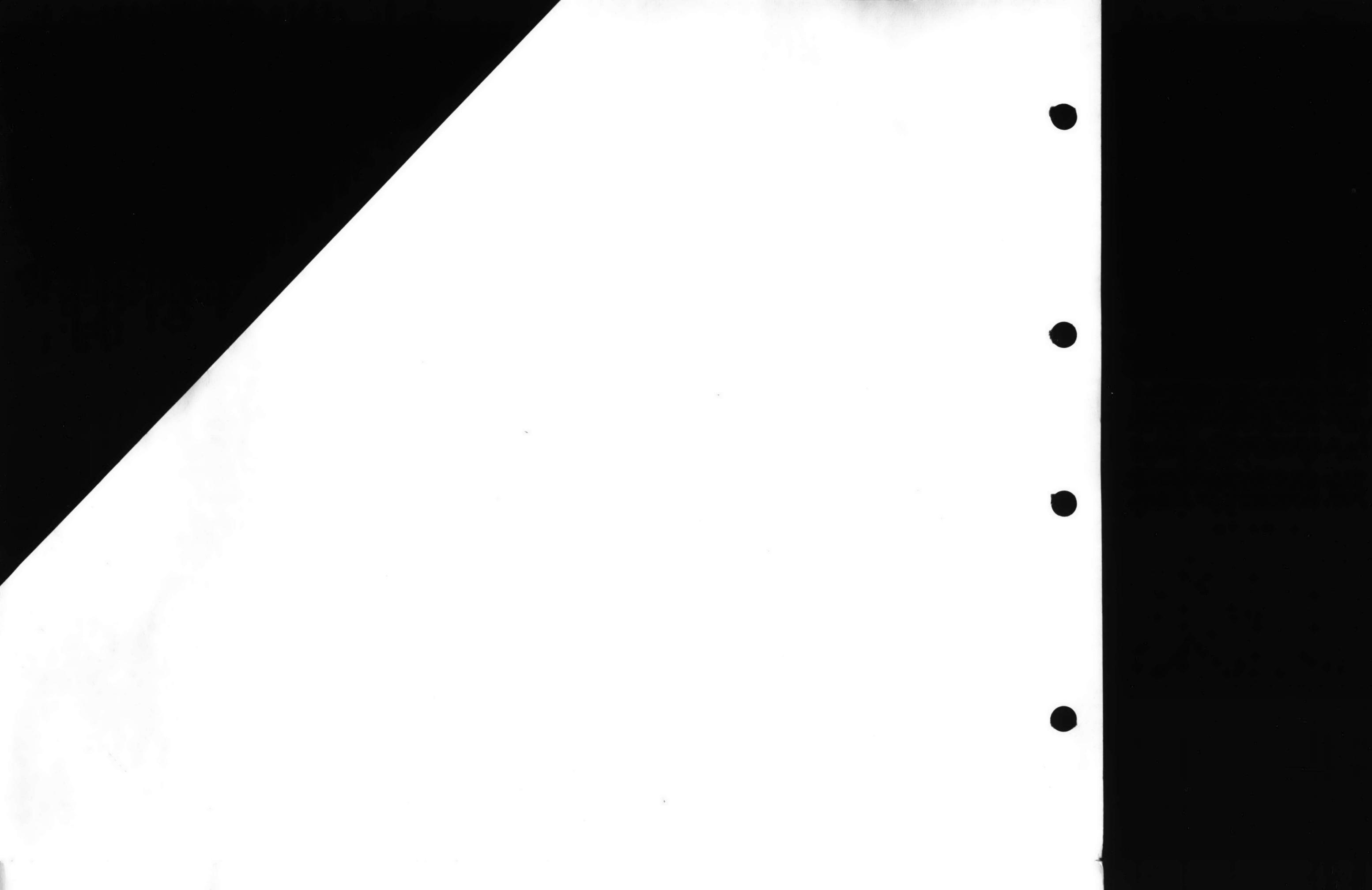
GUN POSITION
* INACTIVE
10 JANUARY 85

CAMP LEFENE SPECIAL MAP

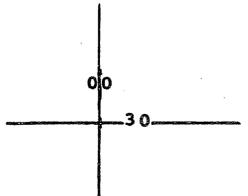
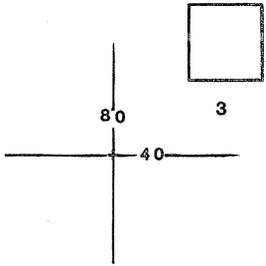
JO JANUARY 52
* INACTIVE
GUN POSITION







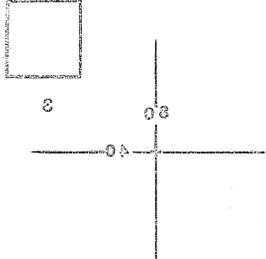
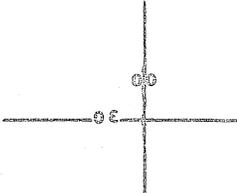




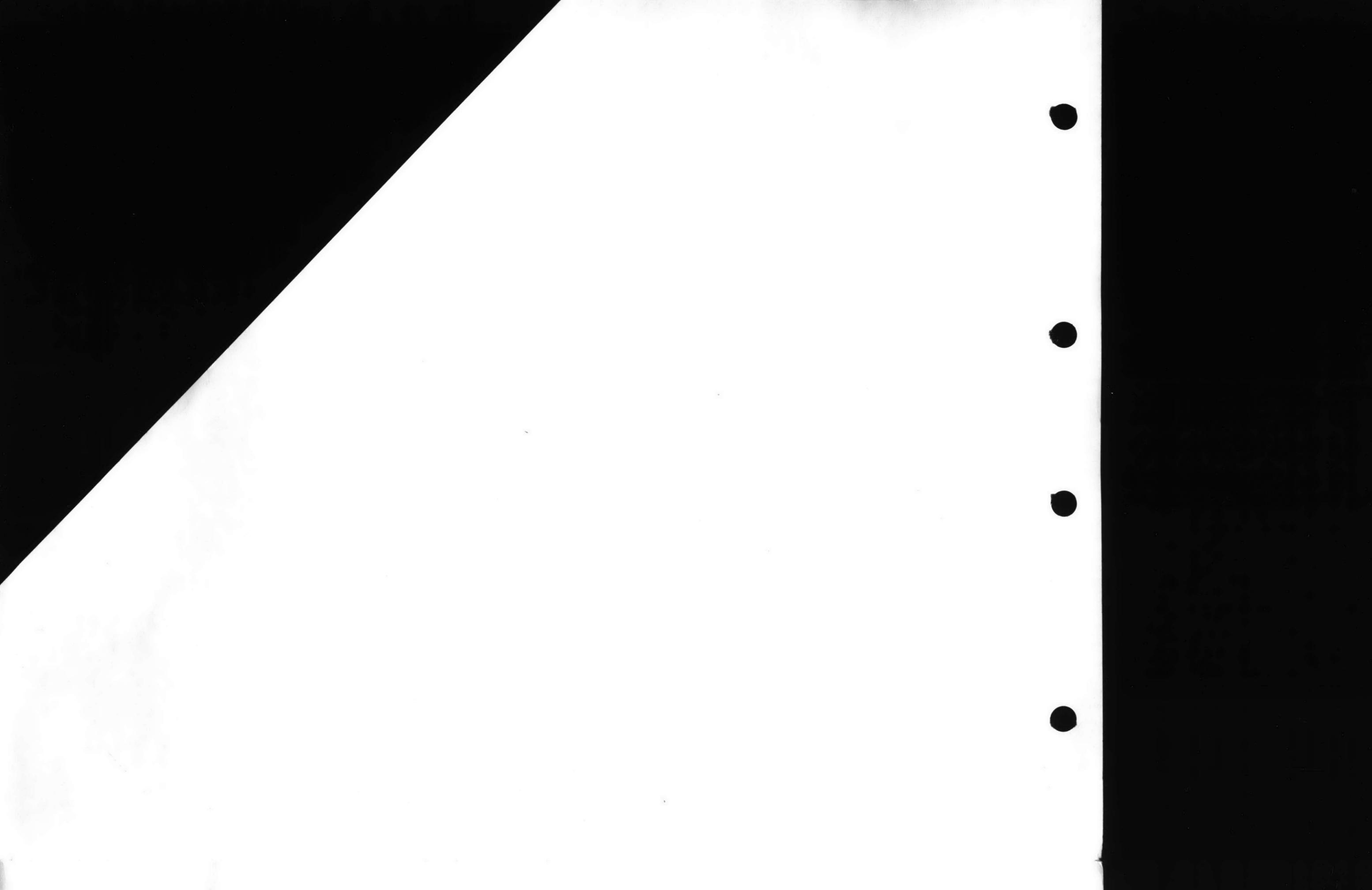
WATER DROP ZONES
1-STONE BAY
2-HICKS (SHARK)
3-MORGAN BAY
4-GATOR (RECON BEACH)
10 JANUARY 85

CAMP LEJEUNE SPECIAL MAP.

CAMP LELEUNE SPECIAL MAP
10 JANUARY 53
4-GATOR (RECON BEACH)
3-MORGAN BAY
2-NICKS (SHARK)
1-STONE BAY
WATER DROP ZONES

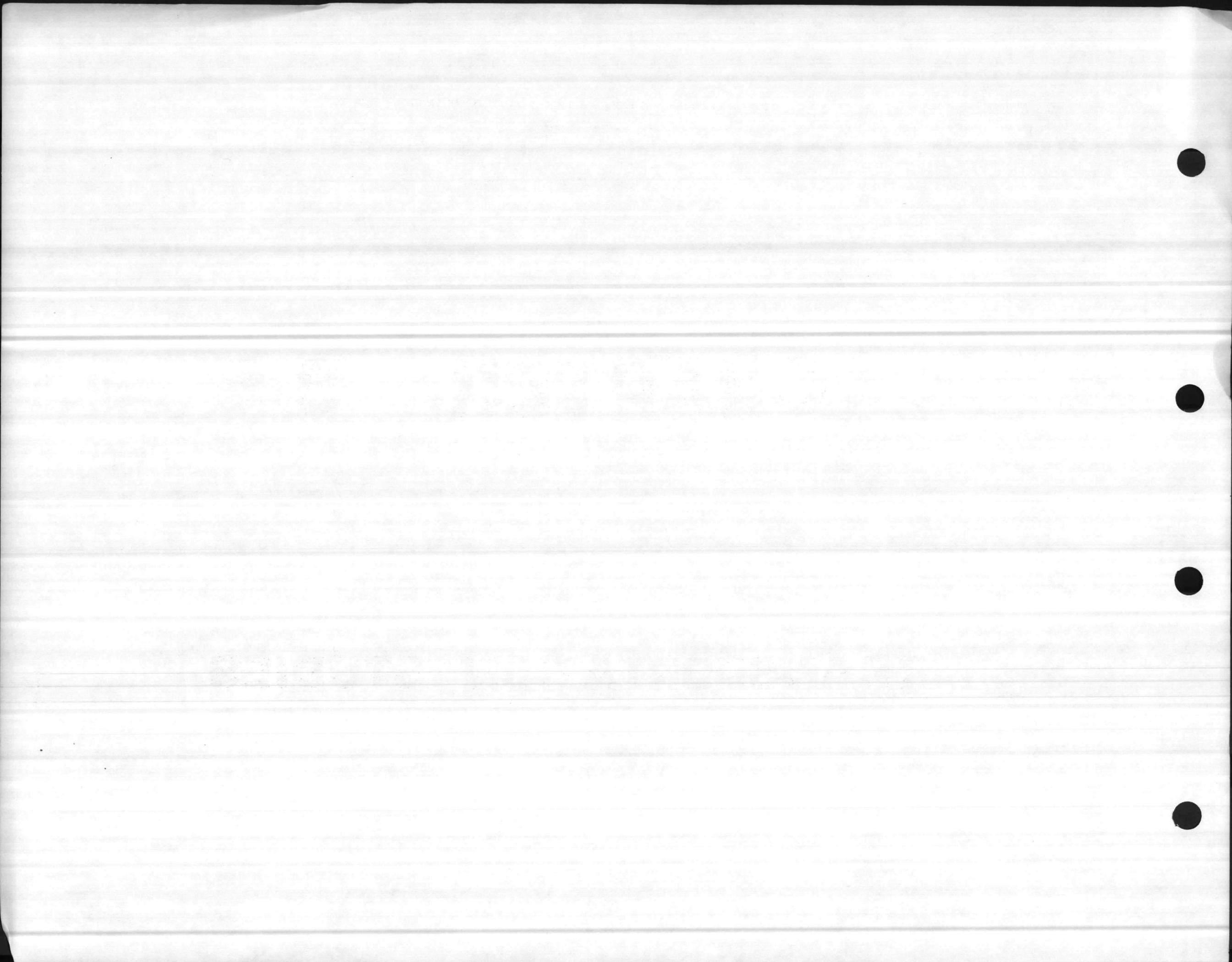






CHAPTER 3

TRANSPORTATION STUDIES



1. GENERAL. MARINE CORPS BASE CAMP LEJEUNE MAINTAINS AN EXTENSIVE NETWORK OF HARD AND LOOSE SURFACE ROADS AND TRAILS, AS WELL AS SEVERAL MILES OF STANDARD-GAGE RAILWAY. HIGHWAY AND RAIL CLEARANCE TO 2D MARDIV/2D FSSG STAGING AREAS AND TRANSSHIPMENT POINTS IS ADEQUATE TO SUPPORT THE MOVEMENT OF ALL ASSIGNED UNITS.

2. PURPOSE. THE PURPOSE OF THIS CHAPTER IS TO FAMILIARIZE THE TACTICAL COMMANDER WITH THE ROAD AND RAIL NETWORK SERVICING CAMP LEJEUNE AND CONNECTING IT WITH THE MAJOR TRANSSHIPMENT POINTS AT MCAS, CHERRY POINT, WILMINGTON PORT FACILITY AND MOREHEAD CITY PORT FACILITY. ALSO INCLUDED WITHIN THIS CHAPTER IS INFORMATION ON AMPHIBIOUS TRACKED VEHICLE WATER ENTRY POINTS LOCATED ALONG THE NEW RIVER AND THE INTRACOASTAL WATERWAY.

3. PERIPHERAL HIGHWAYS. CAMP LEJEUNE IS CONNECTED TO ITS MAJOR TRANSSHIPMENT POINTS BY 4 MAJOR HIGHWAYS. THESE HIGHWAYS ARE U. S. 17 (B.E. 0410LM0091), U. S. 70 (B.E. 0410LM0092), NC 24 (B.E. 0410LM0090) AND U. S. 76 (B.E. 0410LM0095). THE BRIDGES FOR ALL ROAD SEGMENTS ARE HIGHLIGHTED ON THE ATTACHED GRAPHICS AND ARE CLASSIFIED AS ALL-WEATHER, HARD-SURFACED.

SEGMENT DATA

<u>ROUTE & NAME</u>	<u>ORIGIN & DESTINATION</u>	<u>DISTANCE</u>	<u>COMPOSITION</u>	<u>REMARKS</u>
NC 24	FROM CLNC TO MANSFIELD (JUNCTION NC 24/US 17)	38 MILES		CONTAINS SEGMENTS A1 THRU A4 AND BRIDGES D1 THRU D5
	<u>SEGMENT A1.</u> FROM JUNCTION NC 24/US 17 TO MAIN GATE CLNC	6 MILES	A	INCLUDES BRIDGE D1 OVER THE NEW RIVER
	<u>SEGMENT A2.</u> FROM MAIN GATE CLNC TO SWANSBORO BRIDGE	14 MILES	A	INCLUDES BRIDGES D2 AND D3 OVER THE WHITE OAK RIVER
	<u>SEGMENT A3.</u> FROM SWANSBORO BRIDGE TO JUNCTION OF NC 24/ THREE MILE ROAD (HIBBS ROAD)	12 MILES	B	INCLUDES BRIDGES D4 OVER BROAD CREEK AND D5 NEAR PENDER PARK
	<u>SEGMENT A4.</u> FROM JUNCTION OF NC 24/ THREE MILE ROAD (HIBBS ROAD) TO MANSFIELD	3 MILES	B	
THREE MILE ROAD (HIBBS ROAD)	<u>SEGMENT A5.</u> FROM JUNCTION OF NC 24/ THREE MILE ROAD TO JUNCTION OF THREE MILE ROAD/US 70	3 MILES	B	
US 70	MOREHEAD CITY PORT FACILITY TO NEW BERN	39 MILES	A	INCLUDES BRIDGES D6 OVER SWAMP, D7 OVER THE TRENT RIVER AND SEGMENTS C1 THRU C5
	<u>SEGMENT C1.</u> FROM MOREHEAD CITY PORT TO MANSFIELD	5 MILES	A	
	<u>SEGMENT C2.</u> FROM MANSFIELD TO JUNCTION OF NC 24/THREE MILE ROAD	5 MILES	A	
	<u>SEGMENT C3.</u> FROM JUNCTION NC 24/ THREE MILE ROAD TO MCAS, CHERRY POINT MAIN GATE	7 MILES	A	
	<u>SEGMENT C4.</u> FROM MCAS, CHERRY POINT MAIN GATE TO RIVERDALE	10 MILES	A	INCLUDES BRIDGE D6 OVER SWAMP
	<u>SEGMENT C5.</u> FROM RIVERDALE TO NEW BERN	10 MILES	A	INCLUDES BRIDGE D7 OVER THE TRENT RIVER
US 17 (SOUTH)	FROM CLNC TO JUNCTION US 17/US 76	43 MILES		CONTAINS SEGMENTS B1 THRU B3
	<u>SEGMENT B1.</u> FROM CLNC TO US 17/SEABOARD COASTLINE RAIL CROSSING	6 MILES	A	
	<u>SEGMENT B2.</u> FROM US 17/SEABOARD COASTLINE RAIL CROSSING TO HOLLY RIDGE	15 MILES	B	
	<u>SEGMENT B3.</u> FROM HOLLY RIDGE TO JUNCTION US 17/US 76	22 MILES	B	
US 17 (NORTH)	FROM JUNCTION NC 24/US 17 TO NEW BERN	36 MILES	B	CONTAINS SEGMENTS B4 THRU B6 AND BRIDGE D8
	<u>SEGMENT B4.</u> FROM JUNCTION NC 24/US 17 TO MAYSVILLE	17 MILES	B	INCLUDES BRIDGE D8 OVER THE NEW RIVER
	<u>SEGMENT B5.</u> FROM MAYSVILLE TO POLLOCKSVILLE	7 MILES	B	
	<u>SEGMENT B6.</u> FROM POLLOCKSVILLE TO NEW BERN	12 MILES	B	
US 76	FROM BAYMEADE TO WILMINGTON PORT FACILITY	11 MILES	A	CONTAINS SEGMENTS E1, E2 AND BRIDGE D9
	<u>SEGMENT E1.</u> FROM BAYMEADE TO WRIGHTSVILLE	4 MILES	A	INCLUDES BRIDGE D9 OVER WRIGHTSVILLE INLET

<u>ROUTE & NAME</u>	<u>ORIGIN & DESTINATION</u>	<u>DISTANCE</u>	<u>COMPOSITION</u>	<u>REMARKS</u>
	SEGMENT E2. FROM WRIGHTSVILLE TO WILMINGTON PORT FACILITY	7 MILES	A	

*COMPOSITION LEGEND:

- A - FOUR-LANE, HARD-SURFACE, HEAVY-DUTY, ALL-WEATHER
- B - DUAL-LANE, HARD-SURFACE, HEAVY-DUTY, ALL-WEATHER
- C - DUAL-LANE, HARD-SURFACE, MEDIUM-DUTY, ALL-WEATHER
- D - DUAL-LANE, HARD-SURFACE, LIGHT-DUTY, ALL-WEATHER

TRANSPORTATION ILLUSTRATION SHEET

DATE MAP COMPILED: 01 OCT 76



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COUNTRY	UNITED STATES	PERIPHERAL HIGHWAYS	TDI CAT 44700
NAME	NORTH CAROLINA	LAT/LONG	SEE TEXT

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

4. INTERNAL ROADS. THIS SECTION INCLUDES THE INTERNAL PRIMARY ROADS SERVICING THE CAMP LEJEUNE MILITARY RESERVATION. THESE ARE HOLCOMB BOULEVARD (B.E. 0410LM0096), SNEADS FERRY ROAD (B.E. 0410LM0097), MARINES ROAD (B.E. 0410LM0098), ONSLOW BEACH ROAD (B.E. 0410LM0099), NC 172 (B.E. 0410LM0093) AND NC 210 (B.E. 0410LM0094). THE BRIDGES ON THE ROADS ARE HIGHLIGHTED ON THE ATTACHED GRAPHICS AND ARE ALL CLASSIFIED AS ALL-WEATHER, HARD-SURFACED, EXCEPT BRIDGES D3 AND D4 WHICH ARE MOVABLE SPAN BRIDGES. TANK CROSSING PADS ARE INDICATED IN THE REMARKS SECTION OF THE BELOW LISTED DATA TABLE AS WELL AS ON THE TOPOGRAPHIC OVERLAY.

SEGMENT DATA

<u>ROUTE & NAME</u>	<u>ORIGIN & DESTINATION</u>	<u>DISTANCE</u>	<u>COMPOSITION</u>	<u>REMARKS</u>
HOLCOMB BLVD	FROM JUNCTION NC 24 TO END	5.5 MILES	A	CONTAINS SEGMENTS A1, A2 AND BRIDGE D1
	<u>SEGMENT A1.</u> FROM JUNCTION NC 24/MAIN GATE OF CLNC TO JUNCTION SNEADS FERRY ROAD/HOLCOMB BLVD	3.5 MILES	A	INCLUDES BRIDGE D1 OVER WALLACE CREEK
	<u>SEGMENT A2.</u> FROM JUNCTION SNEADS FERRY ROAD/HOLCOMB BLVD TO END	2 MILES	A	
SNEADS FERRY ROAD	FROM JUNCTION HOLCOMB BLVD/SNEADS FERRY ROAD TO JUNCTION NC 172/SNEADS FERRY ROAD	6.5 MILES	B	INCLUDES SEGMENTS B1, B2 AND BRIDGE D2
	<u>SEGMENT B1.</u> FROM ROAD JUNCTION HOLCOMB BLVD/SNEADS FERRY ROAD TO JUNCTION MARINES ROAD/SNEADS FERRY ROAD	4 MILES	B	INCLUDES TANK CROSSING PADS AT 870390 AND 880370 AND BRIDGE D2 OVER COWHEAD CREEK
	<u>SEGMENT B2.</u> FROM JUNCTION MARINES ROAD/SNEADS FERRY ROAD TO JUNCTION NC 172/SNEADS FERRY ROAD	2.5 MILES	B	

<u>ROUTE & NAME</u>	<u>ORIGIN & DESTINATION</u>	<u>DISTANCE</u>	<u>COMPOSITION</u>	<u>REMARKS</u>
MARINES ROAD	<u>SEGMENT C1.</u> FROM JUNCTION SNEADS FERRY ROAD/MARINES ROAD TO JUNCTION NC 172/MARINES ROAD	5 MILES	B	INCLUDES TANK CROSSING PADS AT 893341, 886334 AND 861312
ONSLow BEACH ROAD	<u>SEGMENT E1.</u> FROM JUNCTION NC 172/ONSLow BEACH ROAD TO ONSLOW BEACH	1.5 MILES	C	INCLUDES BRIDGE D3 OVER INTRA-COASTAL WATERWAY AND TANK CROSSING PAD AT 914280
NC 172	FROM JUNCTION NC 24/ NC 172 TO JUNCTION US 17/NC 176	26.5 MILES	B	CONTAINS SEGMENTS F1 THRU F6 AND BRIDGE D4
	<u>SEGMENT F1.</u> FROM JUNCTION NC 24/NC 172 TO JUNCTION TRIANGLE GATE, CLNC/NC 172	4 MILES	B	
	<u>SEGMENT F2.</u> FROM JUNCTION TRIANGLE GATE, CLNC/NC 172 TO JUNCTION SNEADS FERRY ROAD/NC 172	5.5 MILES	B	INCLUDES TANK CROSSING PADS AT 956367, 953341, 949330, 946327, 940323 AND 919311
	<u>SEGMENT F3.</u> FROM JUNCTION SNEADS FERRY ROAD/NC 172 TO JUNCTION MARINES ROAD/NC 172	6 MILES	B	INCLUDES TANK CROSSING PADS AT 905357, 896282 AND 874283
	<u>SEGMENT F4.</u> FROM JUNCTION MARINES ROAD/ NC 172 TO SNEADS FERRY GATE, CLNC/NC 172	3.5 MILES	B	INCLUDES TANK CROSSING PAD AT 823303
	<u>SEGMENT F5.</u> FROM SNEADS FERRY GATE, CLNC TO JUNCTION NC 210/NC 172	3.5 MILES	B	INCLUDES BRIDGE D4 OVER THE NEW RIVER
	<u>SEGMENT F6.</u> FROM JUNCTION NC 210/NC 172 TO JUNCTION US 17/NC 172	4 MILES	B	
NC 210	FROM JUNCTION NC 172/NC 210 TO JUNCTION US 17/NC 210	4 MILES	B	INCLUDES BRIDGE D5 OVER STONE CREEK

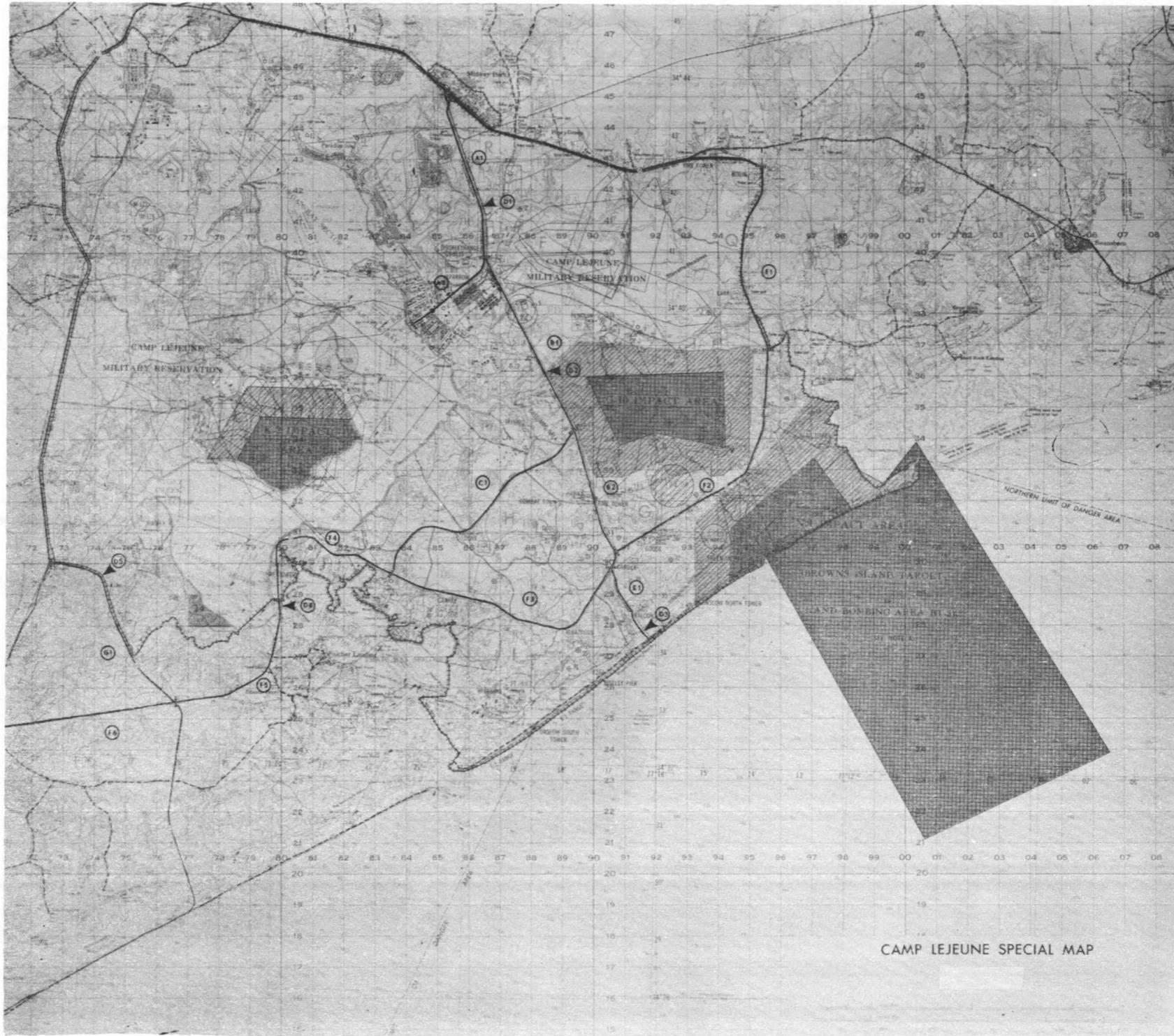
*COMPOSITION LEGEND:

- A - FOUR-LANE, HARD-SURFACE, HEAVY-DUTY, ALL-WEATHER
- B - DUAL-LANE, HARD-SURFACE, HEAVY-DUTY, ALL-WEATHER
- C - DUAL-LANE, HARD-SURFACE, MEDIUM-DUTY, ALL-WEATHER
- D - DUAL-LANE, HARD-SURFACE, LIGHT-DUTY, ALL-WEATHER

NOTE: DUE TO CONTINUOUS WORK ABOARD MCB, CAMP LEJEUNE, COORDINATES LISTED FOR TANK/AMTRAK CROSSING PADS MAY BE IN ERROR UP TO 100 METERS AT ANY GIVEN TIME. CONTACT 2D TANK BATTALION S-3 FOR UP TO DATE INFORMATION CONCERNING THESE ITEMS.

TRANSPORTATION ILLUSTRATION SHEET

DATE MAP COMPILED: 25 SEP 76



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COUNTRY	UNITED STATES	INTERNAL ROADS	TDI CAT 44700
NAME	MCB CAMP LEJEUNE	LAT/LONG	SEE TEXT

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

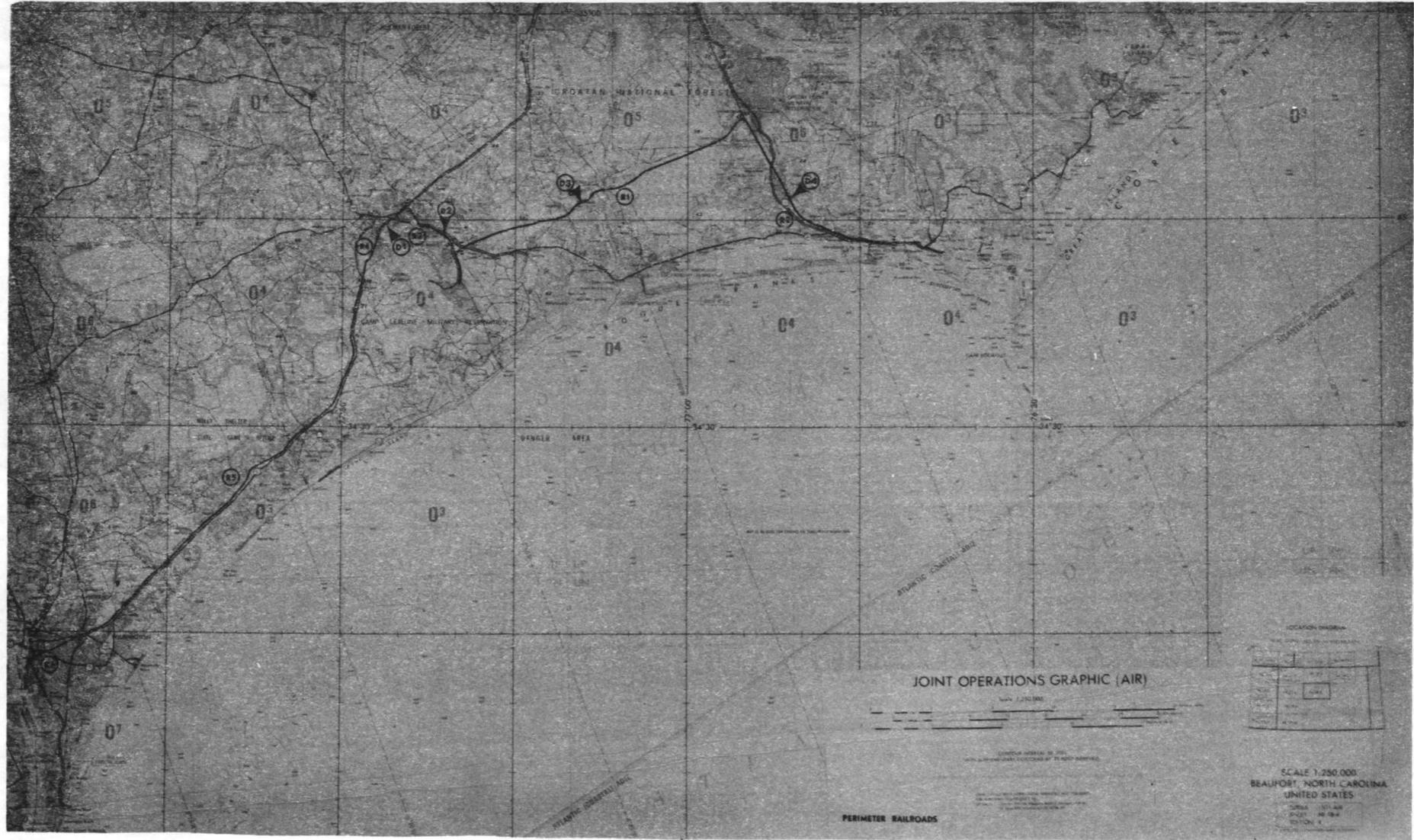
5. PERIPHERAL RAILWAYS. CAMP LEJEUNE IS CONNECTED TO ITS MAJOR TRANSSHIPMENT POINTS BY 3 RAIL LINES. THESE ARE THE SEABOARD COASTLINE (B.E. 0410LM0100), THE CAMP LEJEUNE RAILROAD (B.E. 0410LM0102) AND THE ATLANTIC & EAST CAROLINA LINES (B.E. 0410LM0101). THESE RAILROADS ARE CLASSIFIED AS NORMAL GAUGE (4'8½") SINGLE TRACK. THE BRIDGES FOR ALL RAILROAD SEGMENTS ARE HIGHLIGHTED ON THE ATTACHED GRAPHICS AND ARE ALL NORMAL GAUGE (4'8½") SINGLE TRACK LINES.

SEGMENT DATA

<u>ROUTE & NAME</u>	<u>ORIGIN & DESTINATION</u>	<u>DISTANCE</u>	<u>REMARKS</u>
SEABOARD COASTLINE	FROM CLNC TO WILMINGTON PORT FACILITY	52.5 MILES	CONTAINS SEGMENTS R4 THRU R6 AND BRIDGE D1
	<u>SEGMENT R4.</u> FROM CLNC TO US 17/SEABOARD COASTLINE RAIL CROSSING	7.5 MILES	INCLUDES BRIDGE D1 OVER THE NEW RIVER
	<u>SEGMENT R5.</u> FROM US 17/SEABOARD COASTLINE RAIL CROSSING TO WILMINGTON	40 MILES	
	<u>SEGMENT R6.</u> FROM WILMINGTON TO WILMINGTON PORT FACILITY	5 MILES	
CAMP LEJEUNE RAILROAD	FROM SEABOARD COASTLINE CAMP LEJEUNE RAILROAD JUNCTION TO HAVELOCK STATION	31 MILES	CONTAINS SEGMENTS R1 AND R3 AND BRIDGES D2 AND D3
	<u>SEGMENT R3.</u> FROM SEABOARD COASTLINE/ CAMP LEJEUNE RAILROAD JUNCTION TO CLNC MAIN GATE	5 MILES	INCLUDES BRIDGE D2 OVER THE NEW RIVER
	<u>SEGMENT R1.</u> FROM CLNC MAIN GATE TO HAVELOCK STATION	26 MILES	INCLUDES BRIDGE D3 OVER THE WHITE OAK RIVER
ATLANTIC & EAST CAROLINA LINES	<u>SEGMENT R2.</u> FROM HAVELOCK STATION TO MOREHEAD CITY PORT FACILITY	22.5 MILES	INCLUDES BRIDGE D4 OVER THE NEWPORT RIVER

TRANSPORTATION ILLUSTRATION SHEET

DATE MAP COMPILED: 01 OCT 76



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COUNTRY	UNITED STATES	PERIPHERAL RAILROADS	TDI CAT 45700
NAME	NORTH CAROLINA	LAT/LONG	SEE TEXT

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

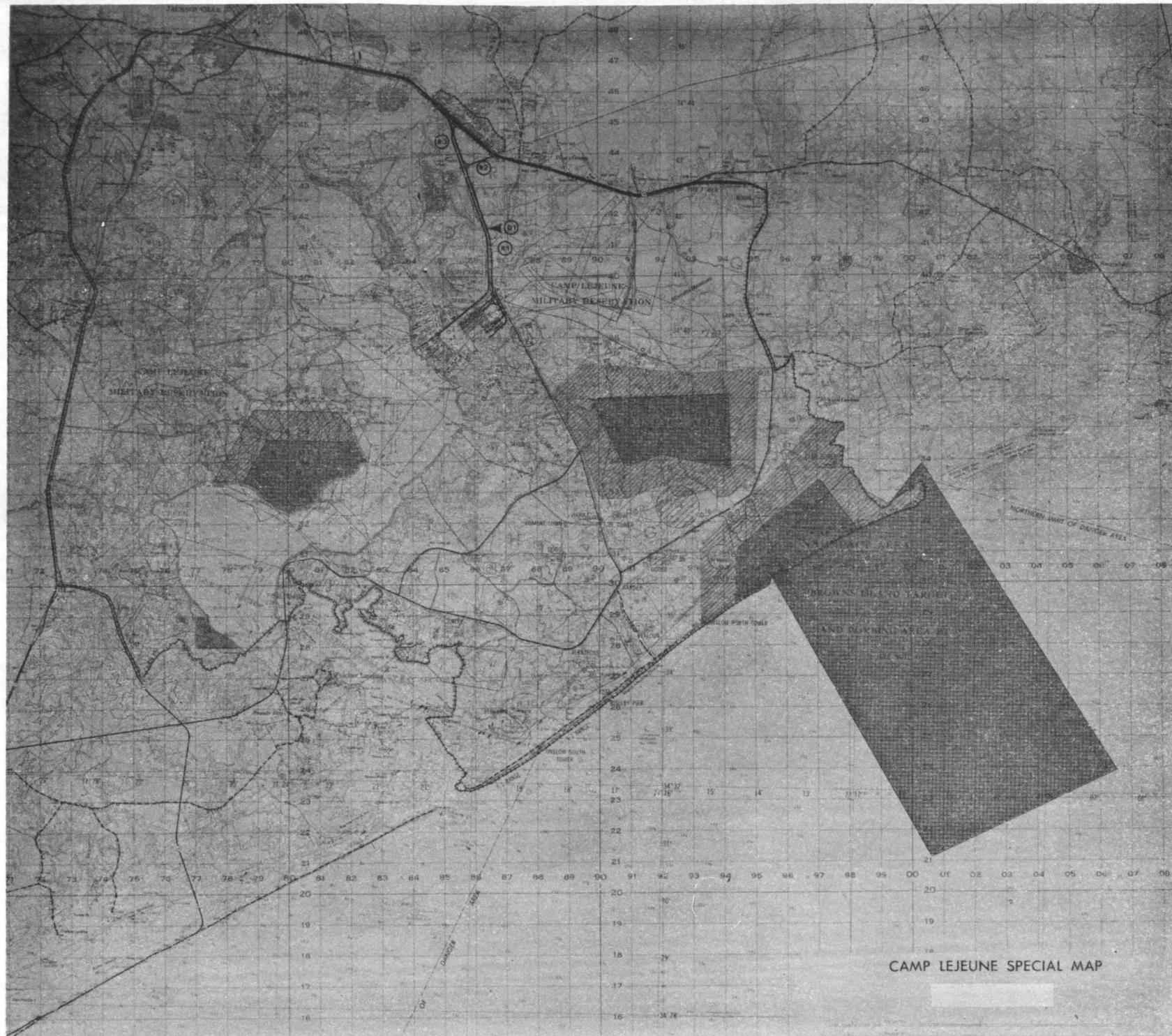
6. INTERNAL RAIL LINES. THIS SEGMENT INCLUDES THE INTERNAL PRIMARY RAILROADS SERVICING THE CAMP LEJEUNE MILITARY RESERVATION. THESE ARE THE CAMP LEJEUNE RAILROAD (B.E. 0410LMO102) AND THE SEABOARD COASTLINE (B.E. 0410LMO100). THE RAILROADS ARE ALL CLASSIFIED NORMAL GAUGE (4'8½") SINGLE TRACK. THE BRIDGES ON ALL RAILROADS ARE HIGHLIGHTED ON THE ATTACHED GRAPHICS AND ARE CLASSIFIED NORMAL GAUGE (4'8½") SINGLE TRACK.

SEGMENT DATA

<u>ROUTE & NAME</u>	<u>ORIGIN & DESTINATION</u>	<u>DISTANCE</u>	<u>REMARKS</u>
CAMP LEJEUNE RAILROAD	FROM CLNC INDUSTRIAL AREA TO NC 24/CAMP LEJEUNE RAILROAD CROSSING	3 MILES	CONTAINS SEGMENTS R1, R2 AND BRIDGE D1
	<u>SEGMENT R1.</u> FROM CLNC INDUSTRIAL AREA TO JUNCTION OF SEABOARD COASTLINE/CAMP LEJEUNE RAILROAD	2.5 MILES	INCLUDES BRIDGE D1 OVER WALLACE CREEK
	<u>SEGMENT R2.</u> FROM JUNCTION OF SEABOARD COASTLINE/CAMP LEJEUNE RAILROAD TO NC 24/CAMP LEJEUNE RAILROAD CROSSING	.5 MILES	
SEABOARD COASTLINE	FROM JUNCTION OF CAMP LEJEUNE RAILROAD/ SEABOARD COASTLINE TO MAIN GATE CLNC/NC 24	1 MILE	

TRANSPORTATION ILLUSTRATION SHEET

DATE MAP COMPILED: 25 SEP 76



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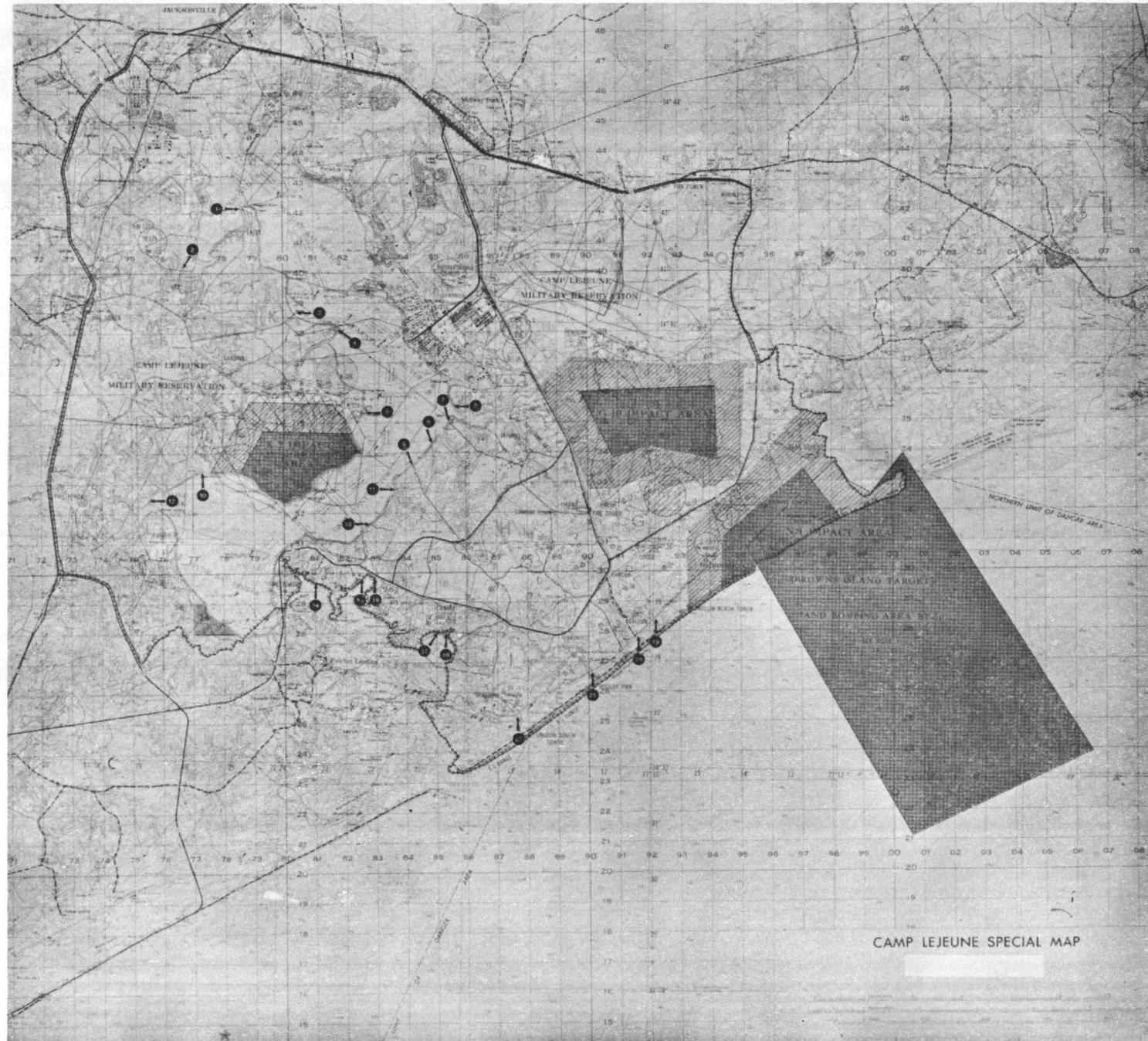
COUNTRY	UNITED STATES	INTERNAL RAILROAD	TDI CAT 45700
NAME	MCB CAMP LEJEUNE	LAT/LONG	SEE TEXT

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

7. AMTRACK ENTRY POINTS. THE PURPOSE OF THIS SEGMENT IS TO FAMILIARIZE THE TACTICAL COMMANDER WITH THE AMTRACK ENTRY POINTS LOCATED WITHIN THE CAMP LEJEUNE MILITARY RESERVATION. THERE ARE 22 AMTRACK ENTRY POINTS LOCATED ALONG THE NEW RIVER AND THE INTRACOASTAL WATERWAY. POINTS: 1, 2, 3, 4, 7, 8, 9, 11, 17, 18, 20, 21 AND 22 HAVE IMPROVED LIGHT-DUTY ROADS LEADING FROM THE ENTRY POINTS. POINTS: 5, 6, 10, 12, 13, 14, 15, 16 AND 19 HAVE UNIMPROVED ROADS LEADING FROM THE ENTRY POINT. FOR COMPLETE TIDAL DATA AND WEATHER INFORMATION CONSULT LOCAL WEATHER SERVICES.

TRANSPORTATION ILLUSTRATION SHEET

DATE MAP COMPILED: 25 SEP 76



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COUNTRY	UNITED STATES	AMTRACK ENTRY POINTS	TDI CAT	44300
NAME	MCB CAMP LEJEUNE	LAT/LONG	SEE TEXT	

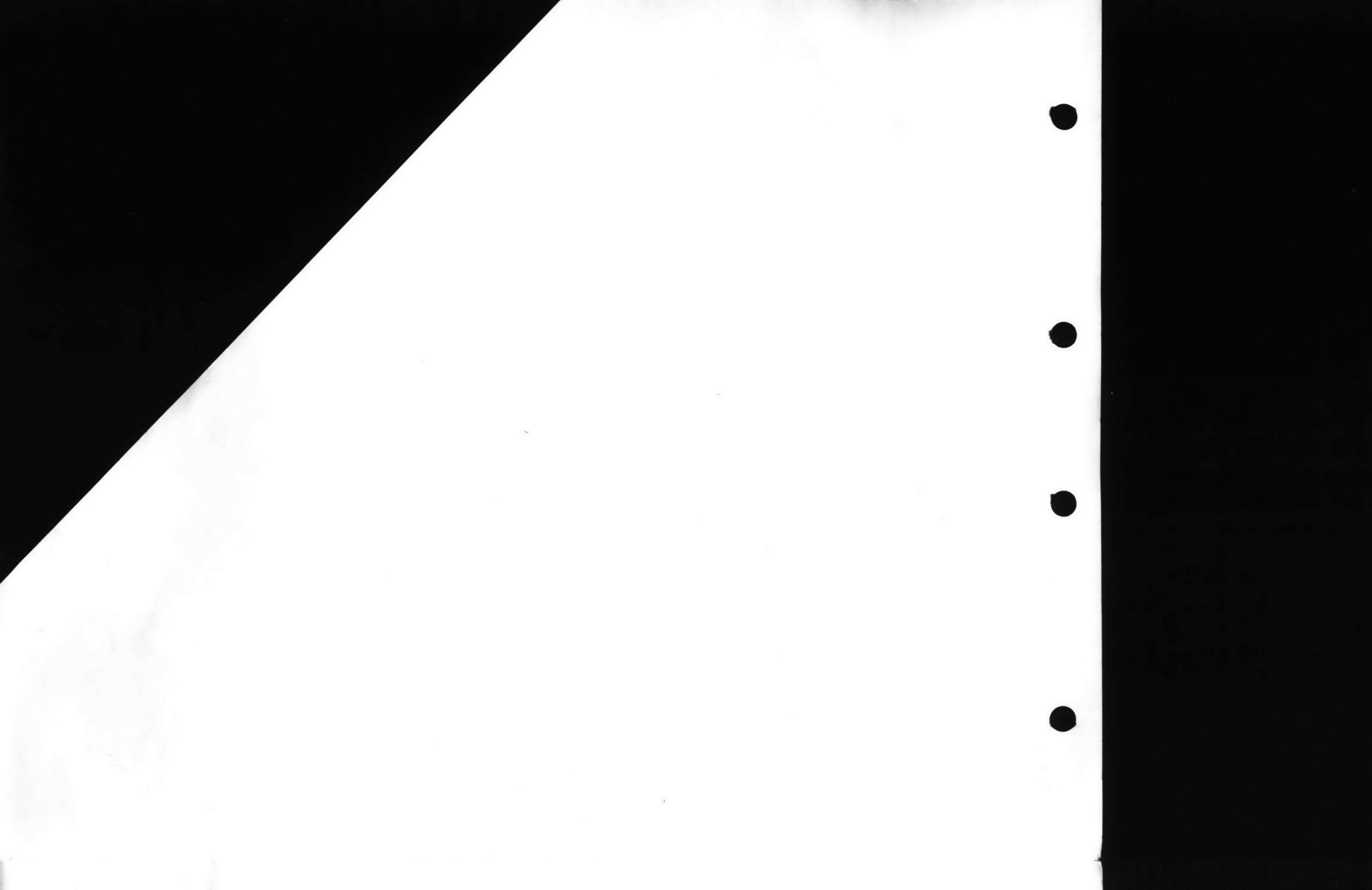
PRODUCED BY: 2D FIU
FOR: 2D MARDIV

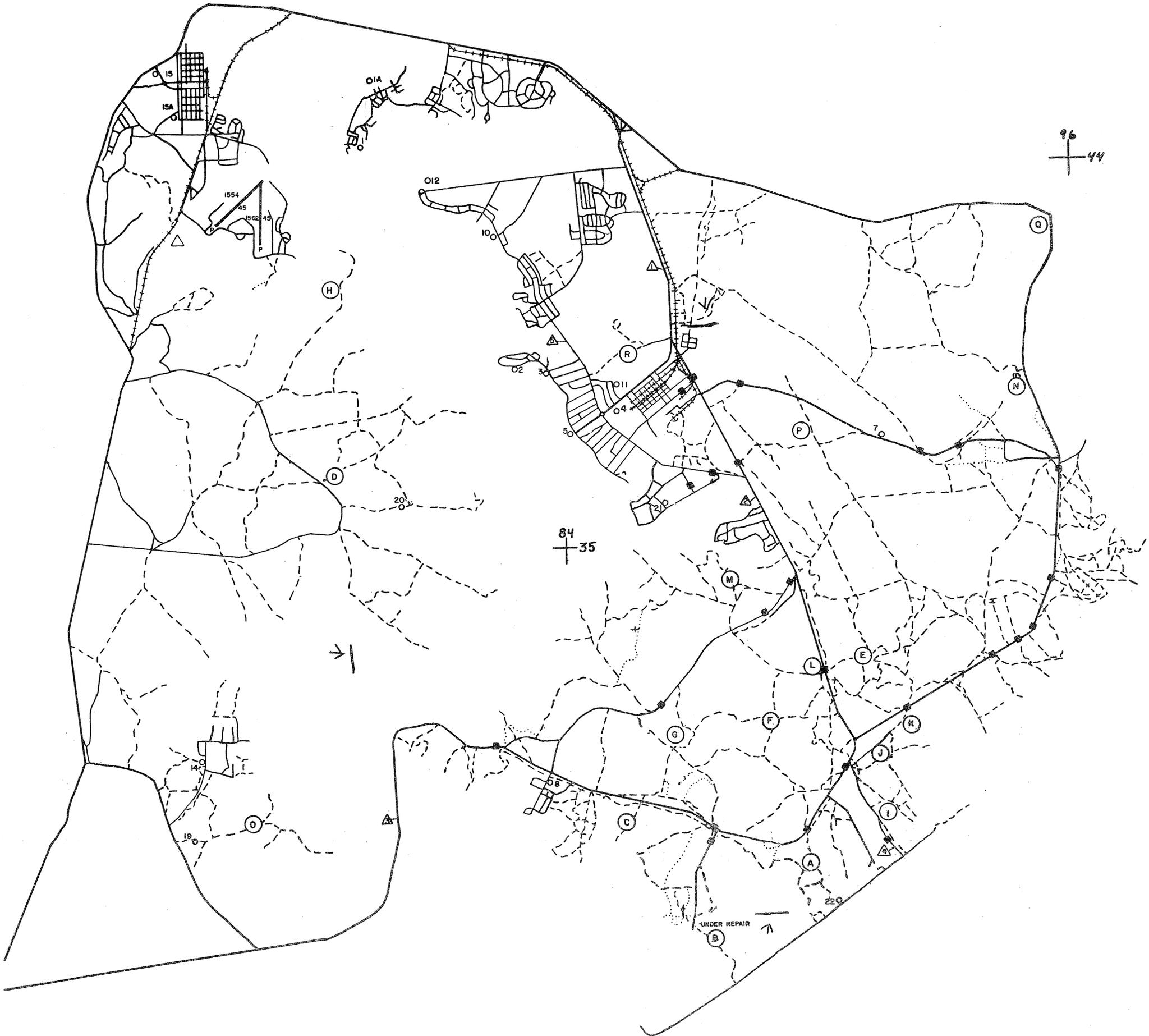
OVERLAYS

1. TRANSPORTATION 1:250,000

2. LINES OF COMMUNICATION 1:50,000







PREPARED BY: FORCE TOPOGRAPHIC PLATOON
 8TH ENGINEER SUPPORT BATTALION, 2D FSSG
 FLEET MARINE FORCE, ATLANTIC
 CAMP LEJEUNE, NORTH CAROLINA 28542

COMPILED IN AUGUST 1984 FROM
 1:50,000 CAMP LEJEUNE SPECIAL MAP SHEET V7429C/CAMP LEJEUNE
 EC2121 5 AND BEST AVAILABLE SOURCES



- | | | |
|--|---|--|
| <p>ROADS</p> <p>ALL WEATHER, HARD SURFACE </p> <p>ALL WEATHER, LOOSE SURFACE </p> <p>FAIR WEATHER, LOOSE SURFACE </p> <p>CART TRACK </p> <p>RAILROADS </p> <p>TANK CROSSING PADS </p> | <p>BRIDGES</p> <p>HLZ TACTICAL </p> <p>HLZ ADMINISTRATIVE </p> | <p>AIRFIELDS</p> <p>A LENGTH IN METERS </p> <p>B WIDTH IN METERS </p> <p>C P-PAVED U-UNPAVED </p> |
|--|---|--|

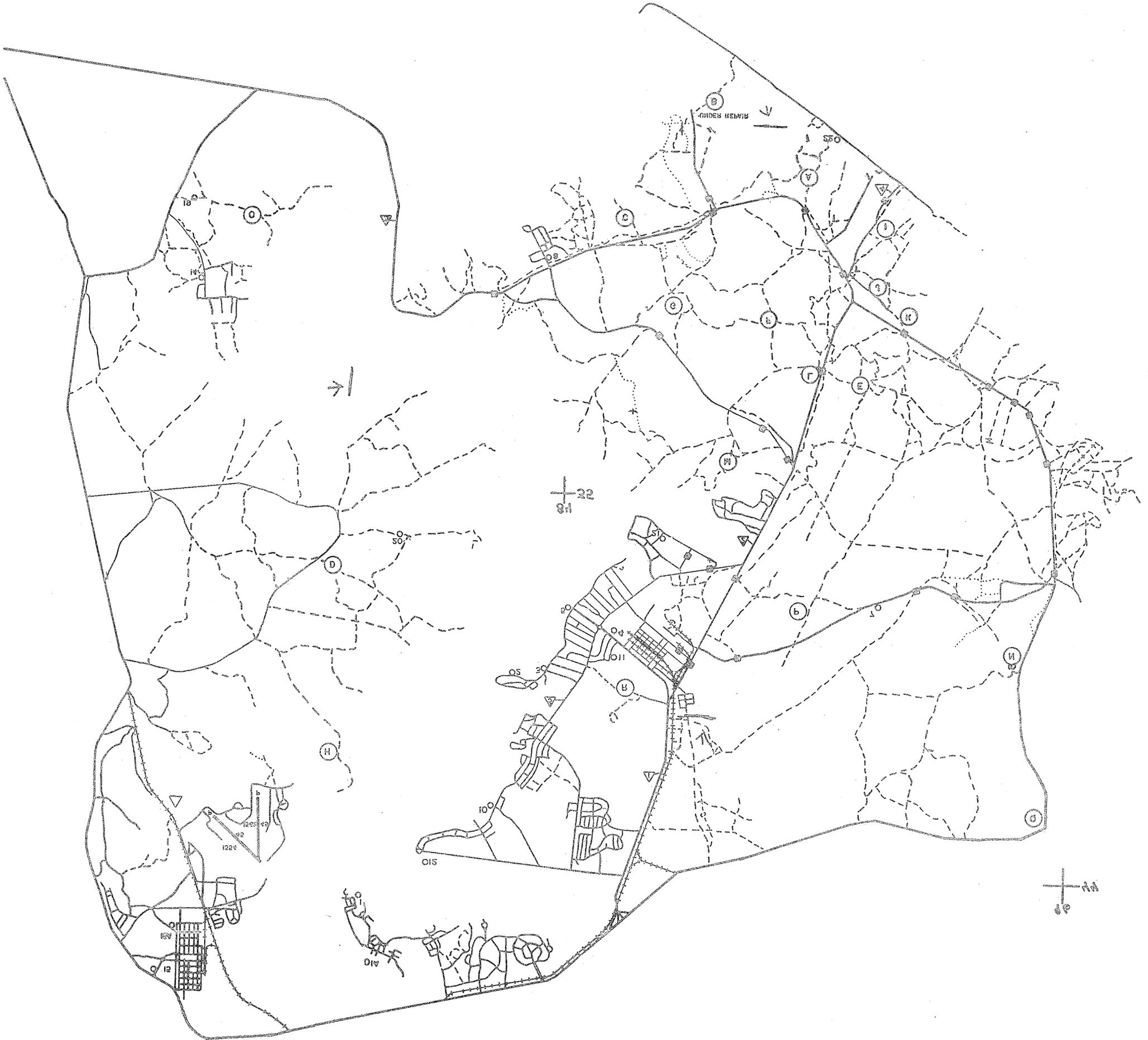
1:50,000 SCALE
 NORTH CAROLINA
 1950
 1:50,000 SCALE
 NORTH CAROLINA
 1950

1:50,000 SCALE
 NORTH CAROLINA
 1950
 1:50,000 SCALE
 NORTH CAROLINA
 1950

..... 100' (30M) DISTANCE
 200' (60M) DISTANCE
 300' (90M) DISTANCE
 400' (120M) DISTANCE
 500' (150M) DISTANCE
 600' (180M) DISTANCE
 700' (210M) DISTANCE
 800' (240M) DISTANCE
 900' (270M) DISTANCE
 1000' (300M) DISTANCE

..... 100' (30M) DISTANCE
 200' (60M) DISTANCE
 300' (90M) DISTANCE
 400' (120M) DISTANCE
 500' (150M) DISTANCE
 600' (180M) DISTANCE
 700' (210M) DISTANCE
 800' (240M) DISTANCE
 900' (270M) DISTANCE
 1000' (300M) DISTANCE

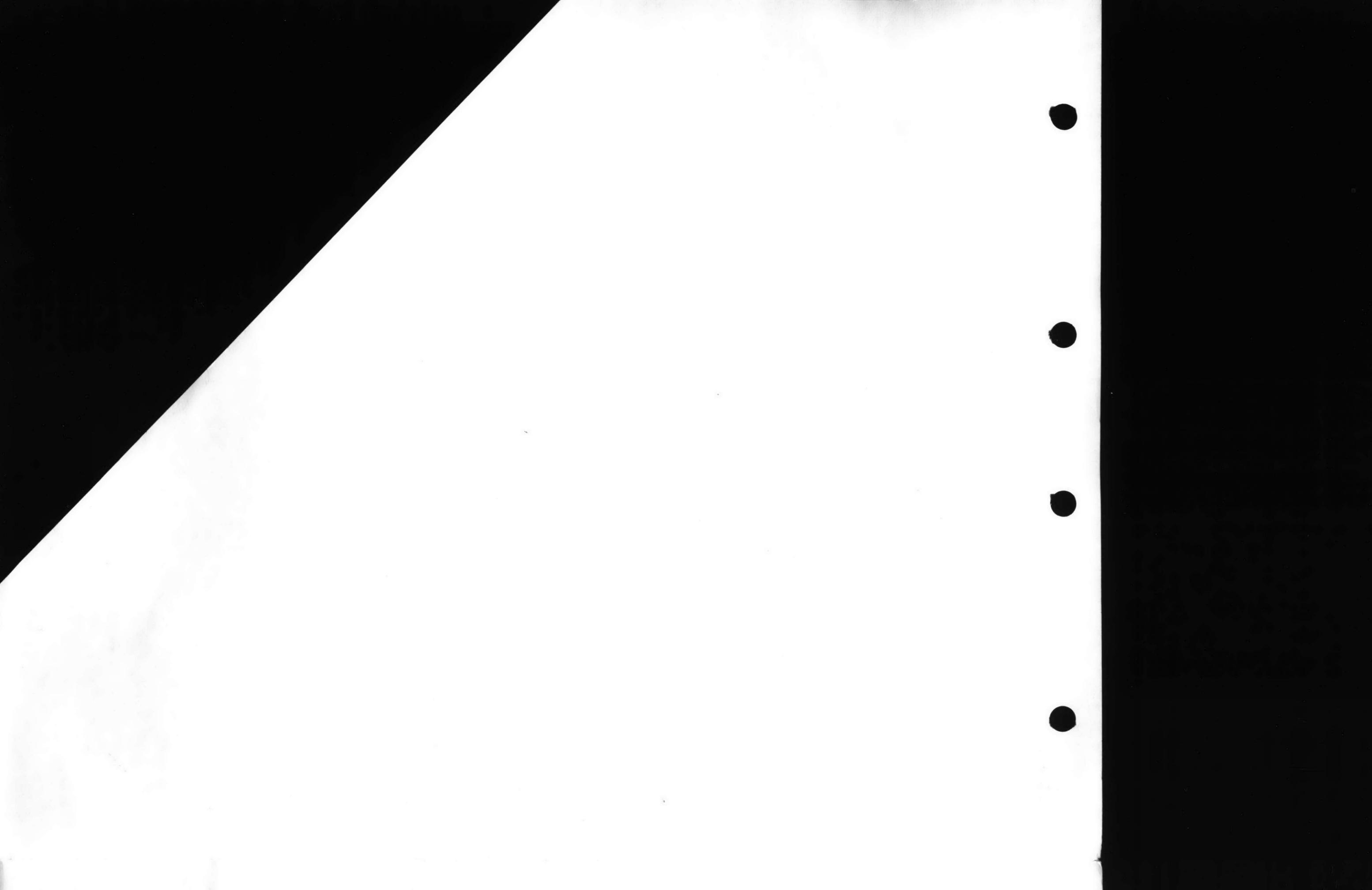
..... 100' (30M) DISTANCE
 200' (60M) DISTANCE
 300' (90M) DISTANCE
 400' (120M) DISTANCE
 500' (150M) DISTANCE
 600' (180M) DISTANCE
 700' (210M) DISTANCE
 800' (240M) DISTANCE
 900' (270M) DISTANCE
 1000' (300M) DISTANCE

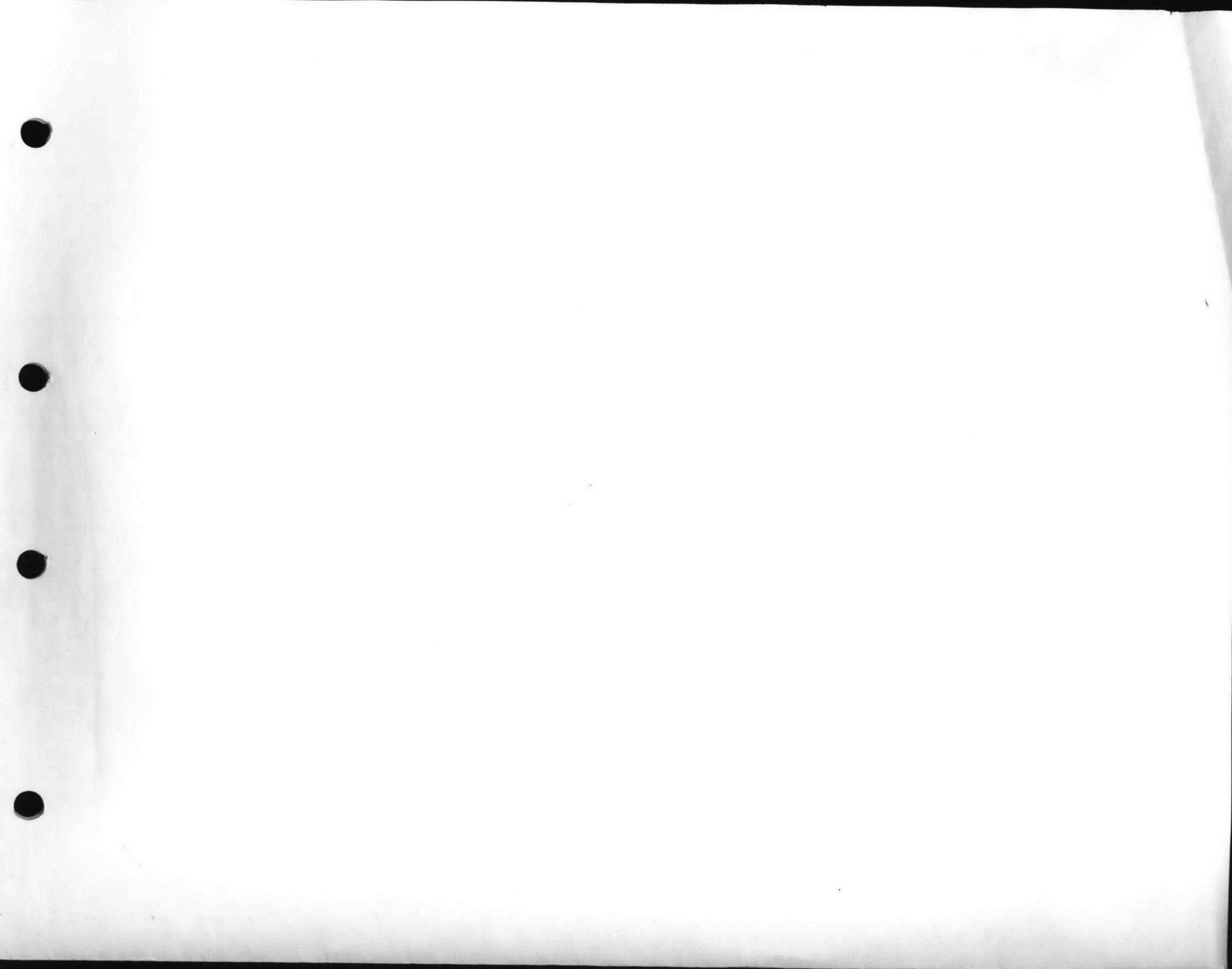


1:50,000 SCALE
 NORTH CAROLINA
 1950
 1:50,000 SCALE
 NORTH CAROLINA
 1950

CAMP GREENE AREA STUDY

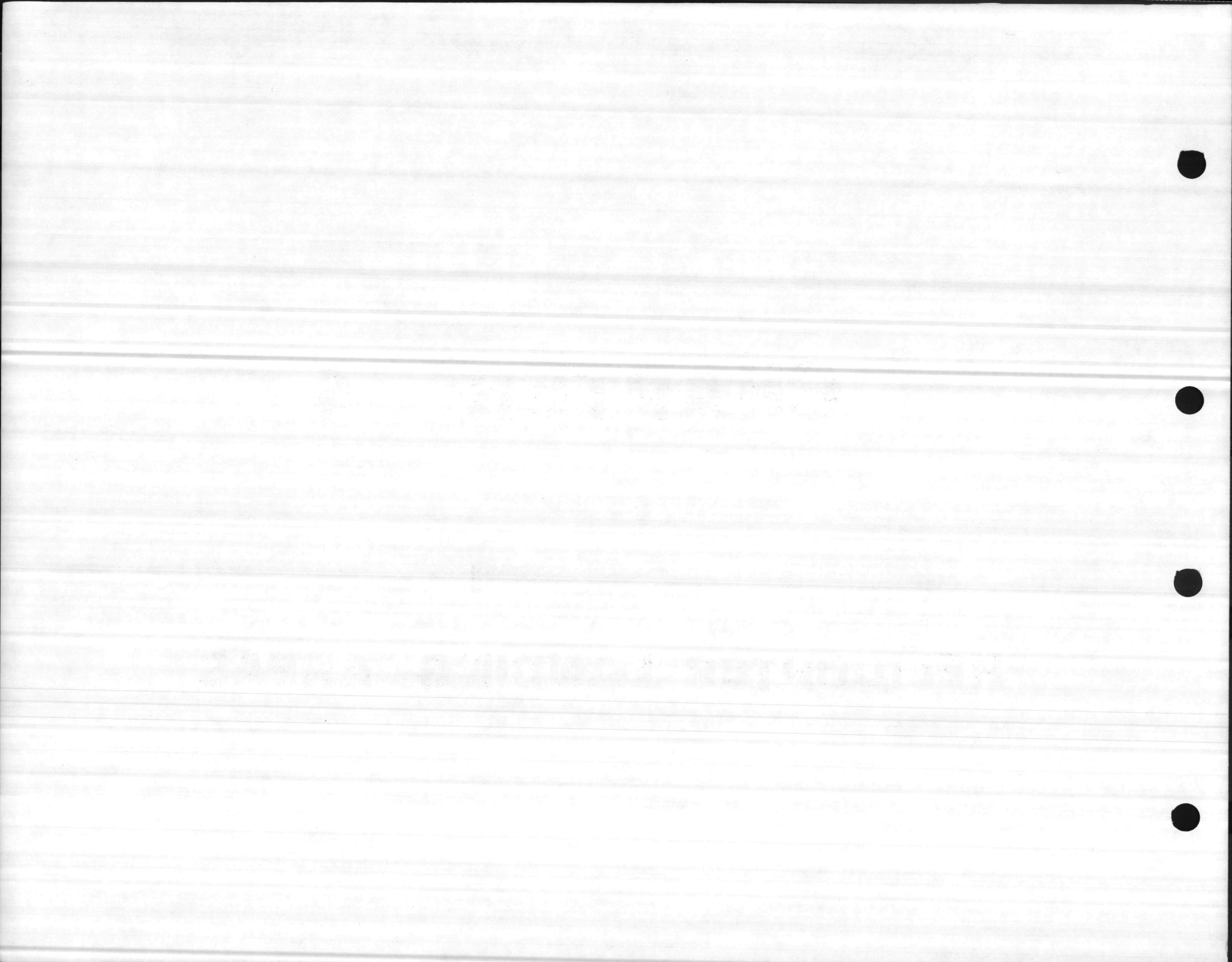






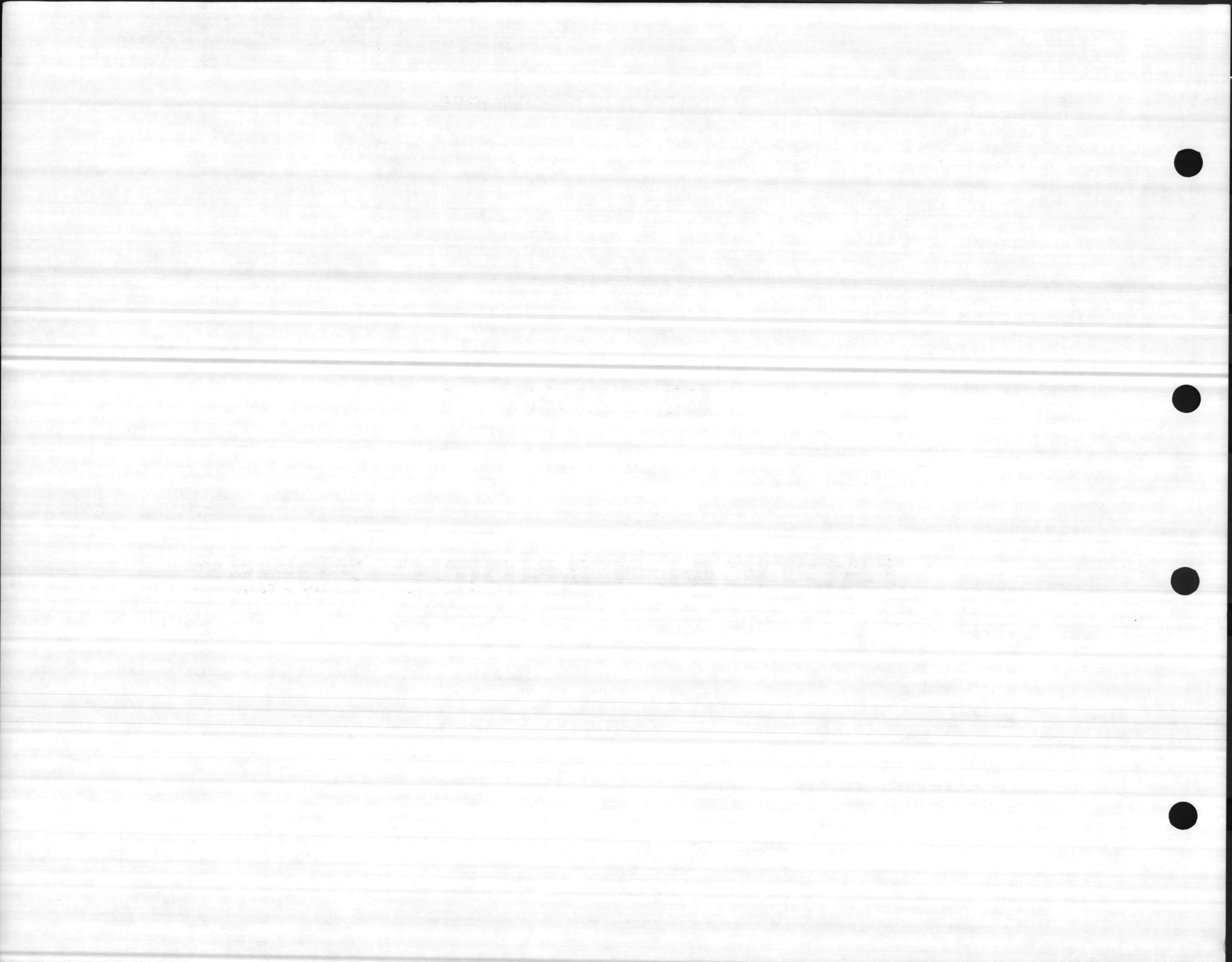
CHAPTER 4

HELICOPTER LANDING AREAS



SECTION 1

TACTICAL LANDING ZONES



1. GENERAL. THE EXTENT TO WHICH THE MARINE CORPS DEPENDS ON HELICOPTER ASSAULT AND LIFT CAPABILITY IS INCREASING IN REACTION TO THE CHANGING NATURE OF THE POTENTIAL MISSIONS IN WHICH OUR FORCES MAY BE EMPLOYED. REGARDLESS OF EMPLOYMENT SCENARIO, THE ORGANIC CAPACITY TO RAPIDLY RELOCATE MARINES AND EQUIPMENT AND RESPOND TO A CHANGING OPERATIONAL SITUATION IS CRITICAL. OUR ROTARY-WING ASSETS SATISFY THIS NECESSITY. IN RECOGNITION OF THE IMPORTANCE OF HELICOPTERBORNE OPERATIONS, MCB, CAMP LEJEUNE MAINTAINS NUMEROUS TACTICAL AND ADMINISTRATIVE LANDING ZONES TO FACILITATE TRAINING, LOGISTICS AND PERSONNEL TRANSPORTATION REQUIREMENTS.
2. PURPOSE. THIS CHAPTER IS INTENDED PRIMARILY TO ASSIST UNIT COMMANDERS IN PLANNING HELICOPTER SUPPORTED TACTICAL TRAINING WITHIN CAMP LEJEUNE. IN ADDITION, THE INFORMATION PRESENTED IN THESE STUDIES SHOULD PROVIDE BOTH AIRCREW AND GROUND TROOPS WITH A DATA BASE FOR THE CONDUCT OF SAFE OPERATIONS.
3. SCOPE. INFORMATION CONTAINED HEREIN WAS DERIVED FROM CURRENT TOPOGRAPHIC MAPS, AERONAUTICAL CHARTS, AERIAL PHOTOGRAPHS AND GROUND LANDING SITE SURVEYS.

- 1) NAME: ALBATROSS
- 2) BE NO./TDI CATEGORY CODE: 0410LM0001/70610
- 3) CENTER COORDINATE/GEO: 343402N0771737W
- 4) CENTER COORDINATE/UTM: 18STP89592724
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 280 METERS BY 150 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 148.0 MAG/

20.5 KM

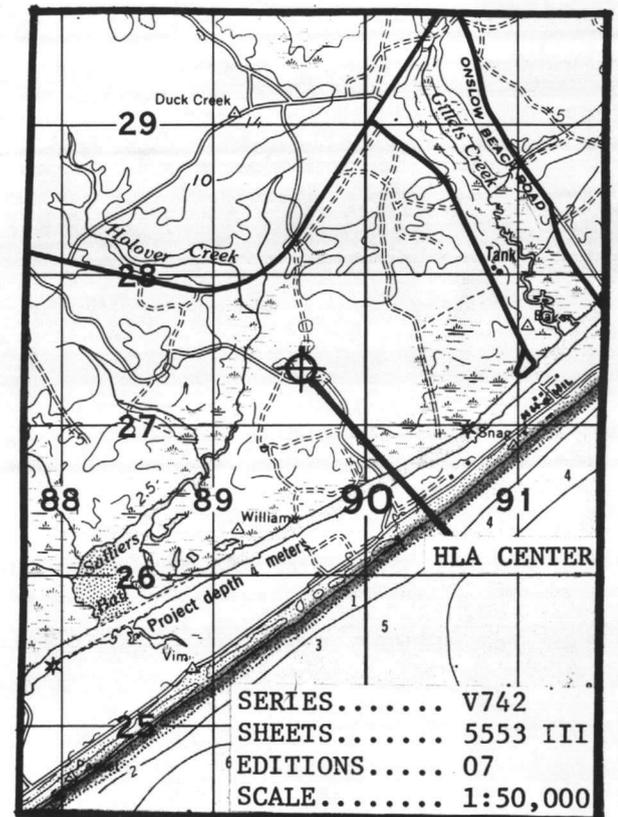
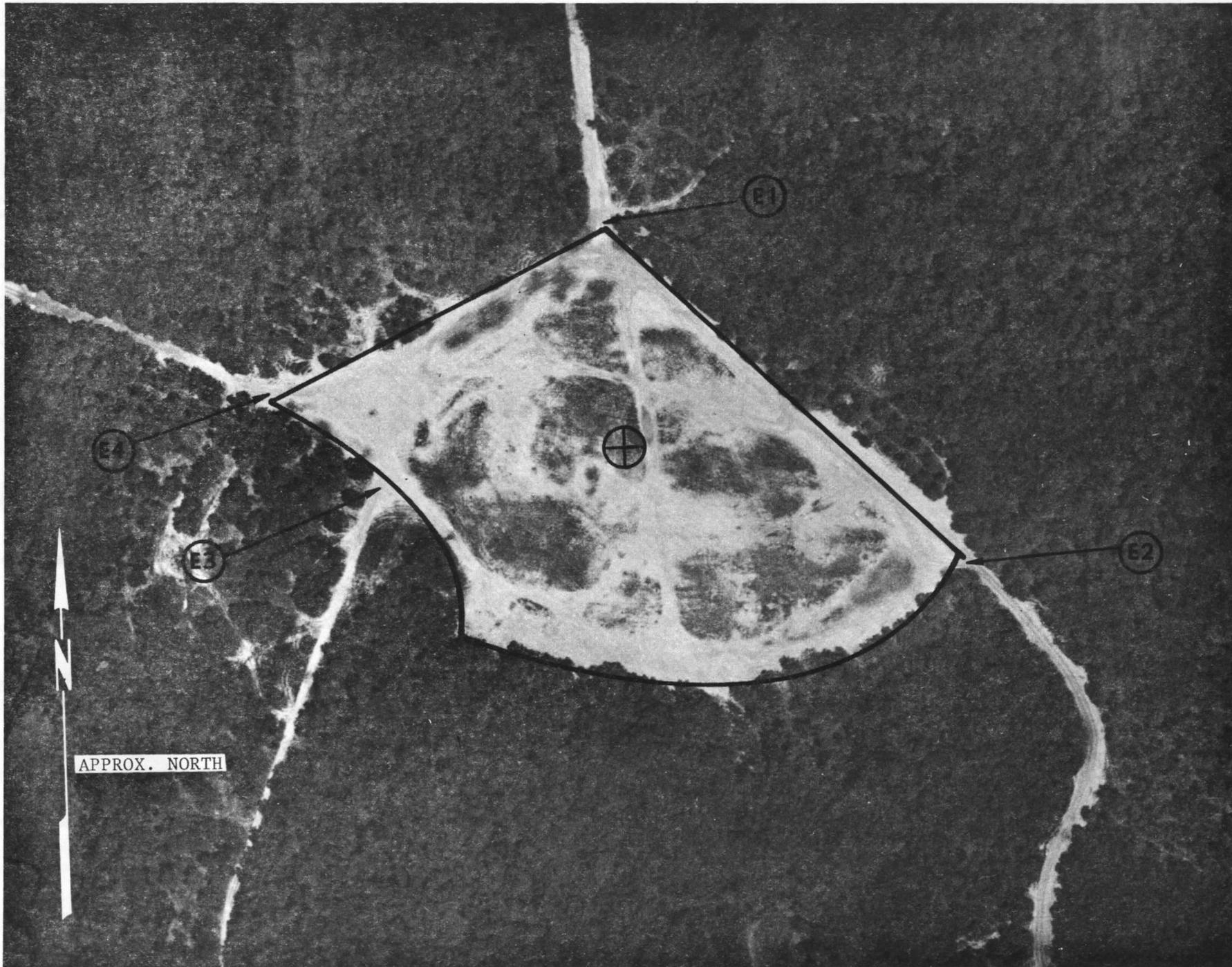
- 9) EXITS: E1: DIRT ROAD EXTENDING N, INTERSECTING A TWO LANE HARD SURFACED ROAD, RT. NO.172.
E2: DIRT ROAD EXTENDING S TO INTRACOASTAL WATERWAY, DEAD END.
E3: DIRT TRACK EXTENDING S TO INTRACOASTAL WATERWAY IS A DEAD END.
E4: DIRT ROAD EXTENDING W TO DIRT ROAD/TRACK INTERSECTING TWO LANE HARD SURFACED ROAD, RT. NO.172.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD

- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA I, SUBDIVISION IB.
CROSS COUNTRY MOVEMENT OF VEHICLES IS RESTRICTED DUE TO DENSE TREES AND VEGETATION.
EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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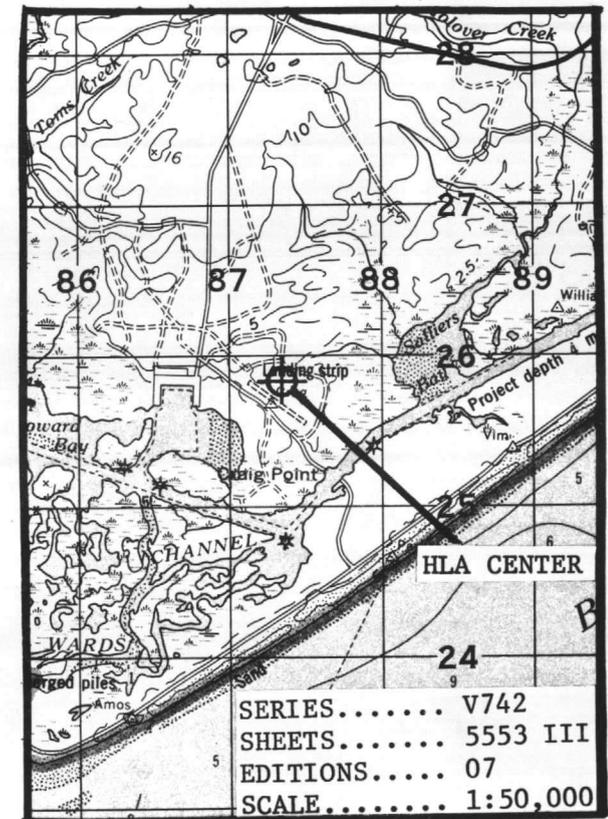
COUNTRY	UNITED STATES	RECORD ID	0410LM0001	TDI CAT	70610
NAME	ALBATROSS	LAT/LONG	343402N0771737W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: BLUEBIRD
- 2) BE NO./TDI CATEGORY CODE: 0410LM0002/70610
- 3) CENTER COORDINATE/GEO: 343315N0771907W
- 4) CENTER COORDINATE/UTM: 18STP87252580
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 746 METERS BY 253 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 155.30 MAG/
20.2 KM
- 9) EXITS: NUMEROUS DIRT ROADS EXTEND FROM LZ, INTERSECTING DIRT ROADS/TRACKS/
TRAILS EXTENDING IN NUMEROUS DIRECTIONS.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
- | | | |
|----------|------|------|
| TROOPS: | GOOD | GOOD |
| WHEELED: | POOR | FAIR |
| TRACKED: | FAIR | GOOD |
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA I, SUBDIVISION
ID. LZ HAS A RUNWAY PARALLELING IT'S SW BOUNDARY. CAUTION SHOULD BE OBSERVED
WHEN APPROACHING HARRIER RAMP LOCATED IN SE CORNER OF LZ. EXTERNAL LIFT
AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

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DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0002	TDI CAT 70610
NAME BLUEBIRD	LAT/LONG 343315N0771907W	

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: - CANARY
- 2) BE NO./TDI CATEGORY CODE: 0410LM0003/70610
- 3) CENTER COORDINATE/GEO: 343438N0772036W
- 4) CENTER COORDINATE/UTM: 18STP85072842
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 280 METERS BY 250 METERS (AVERAGE)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 157.0 MAG/

16.9 KM

- 9) EXITS: E1: DIRT ROAD EXTENDS E AND INTERSECTS WITH A DIRT ROAD.
E2: DIRT ROAD EXTENDS S AND INTERSECTS WITH A DIRT ROAD.

10) FLIGHT HAZARDS: NONE

11) LANDING HAZARDS: NONE

12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.

13) TRAFFICABILITY: DRY WET

TROOPS: GOOD GOOD

WHEELED: POOR FAIR

TRACKED: FAIR GOOD

14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA I, SUBDIVISION

IF. MOVEMENT BY VEHICLES WILL BE HAMPERED TO THE NW BY DENSE VEGETATION.

EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

- 1) NAME: CARDINAL
- 2) BE NO./TDI CATEGORY CODE: 0410LM0004/70610
- 3) CENTER COORDINATE/GEO: 343901N0772506W
- 4) CENTER COORDINATE/UTM: 18STP78403670
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 120 METERS BY 75 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 170.5 MAG/
6.5 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS NW TO Y JUNCTION WITH A DIRT TRAIL.
E2: DIRT ROAD EXTENDS SW INTERSECTING A DIRT ROAD WITH TRACKED

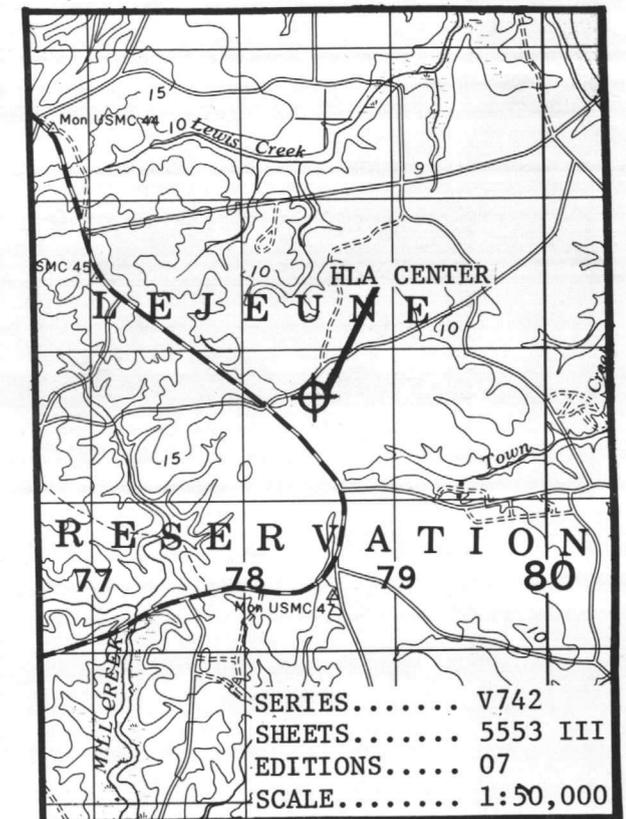
VEHICLE CROSSING.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: SCATTERED SCRUBS THROUGHOUT THE LZ.
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	POOR	FAIR
TRACKED:	FAIR	GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA K. EXTERNAL LIFT
AUTHORIZED, DIRT ROAD TRANSVERSES LZ.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



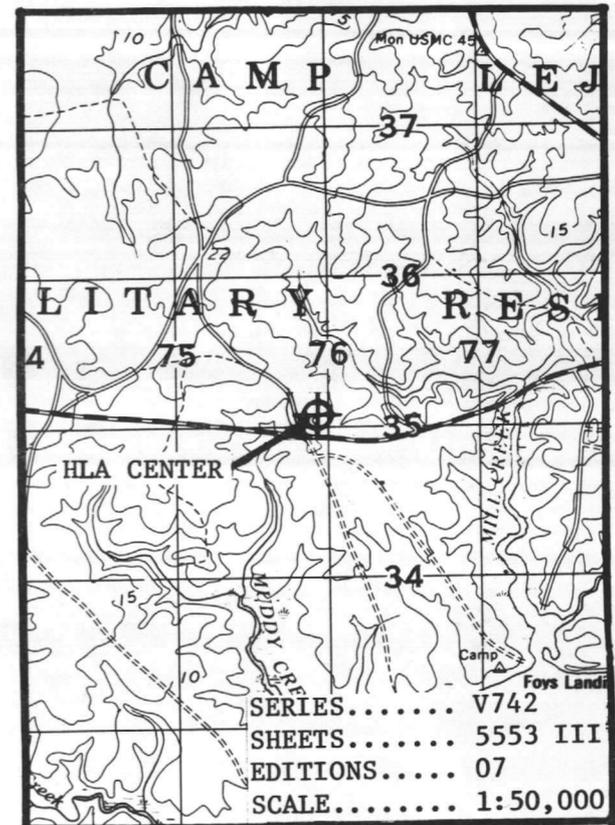
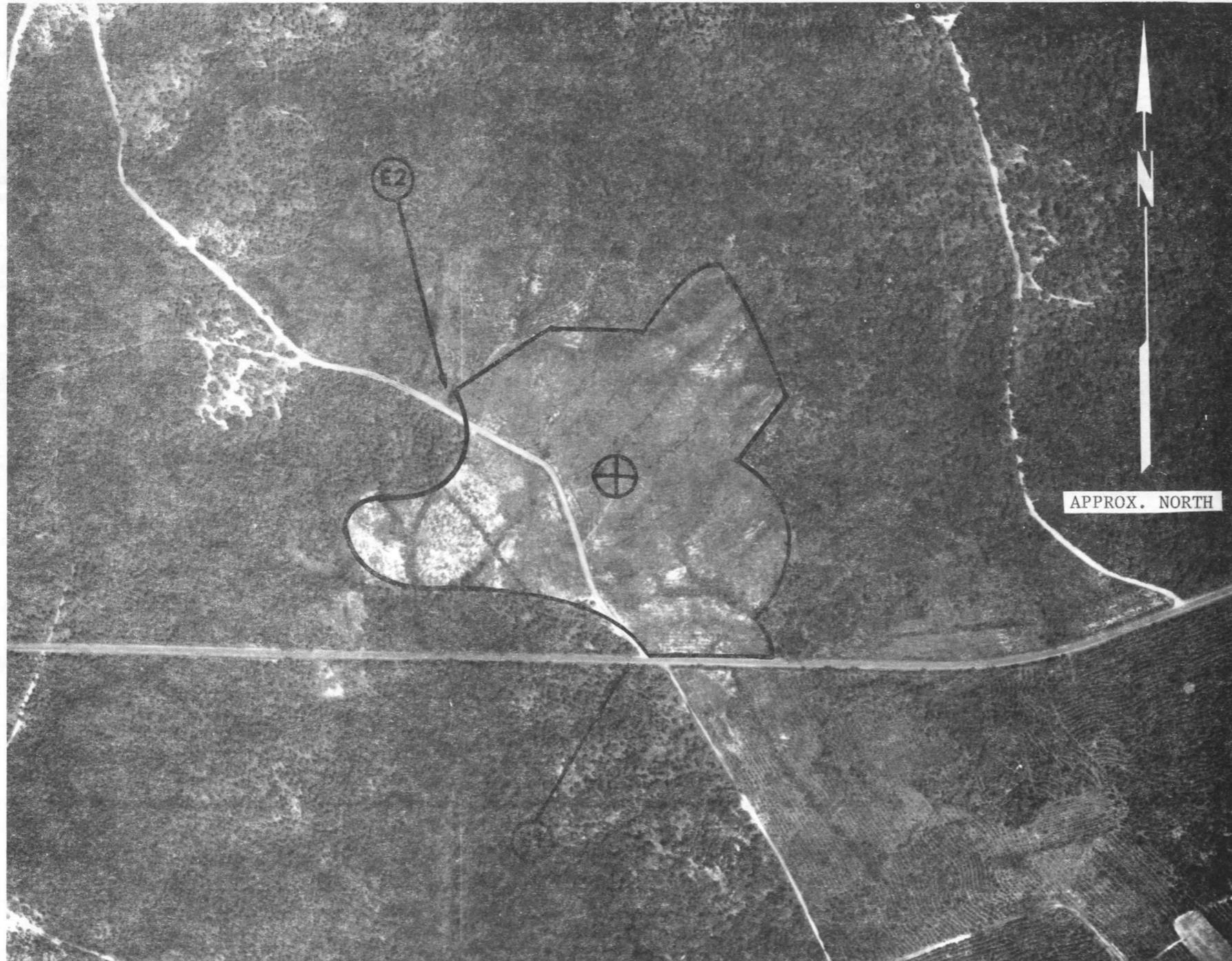
COUNTRY	UNITED STATES	RECORD ID	0410LM0004	TDI CAT	70610
NAME	CARDINAL	LAT/LONG	343901N0772506W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: CONDOR
- 2) BE NO./TDI CATEGORY CODE: 0410LM0005/70610
- 3) CENTER COORDINATE/GEO: 343809N0772644W
- 4) CENTER COORDINATE/UTM: 18STP75833519
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 320 METERS BY 325 METERS (WIDEST POINTS)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 192.5 MAG/
7.7 KM
- 9) EXITS: E1: DIRT ROAD EXTENDING S TO VERONA LOOP ROAD.
E2: DIRT ROAD EXTENDING N TO DIRT ROAD.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: SCATTERED SCRUBS THROUGHOUT THE LZ.
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA M, SUBDIVISION
MF. EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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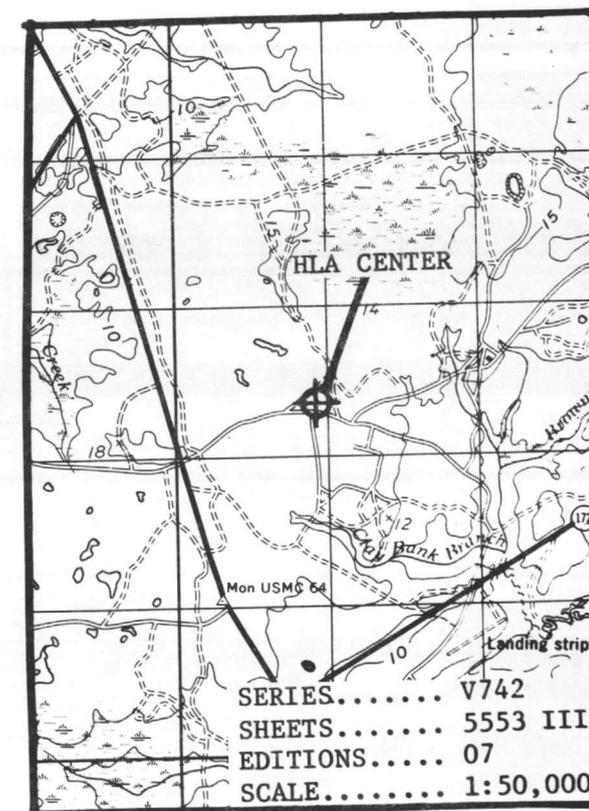
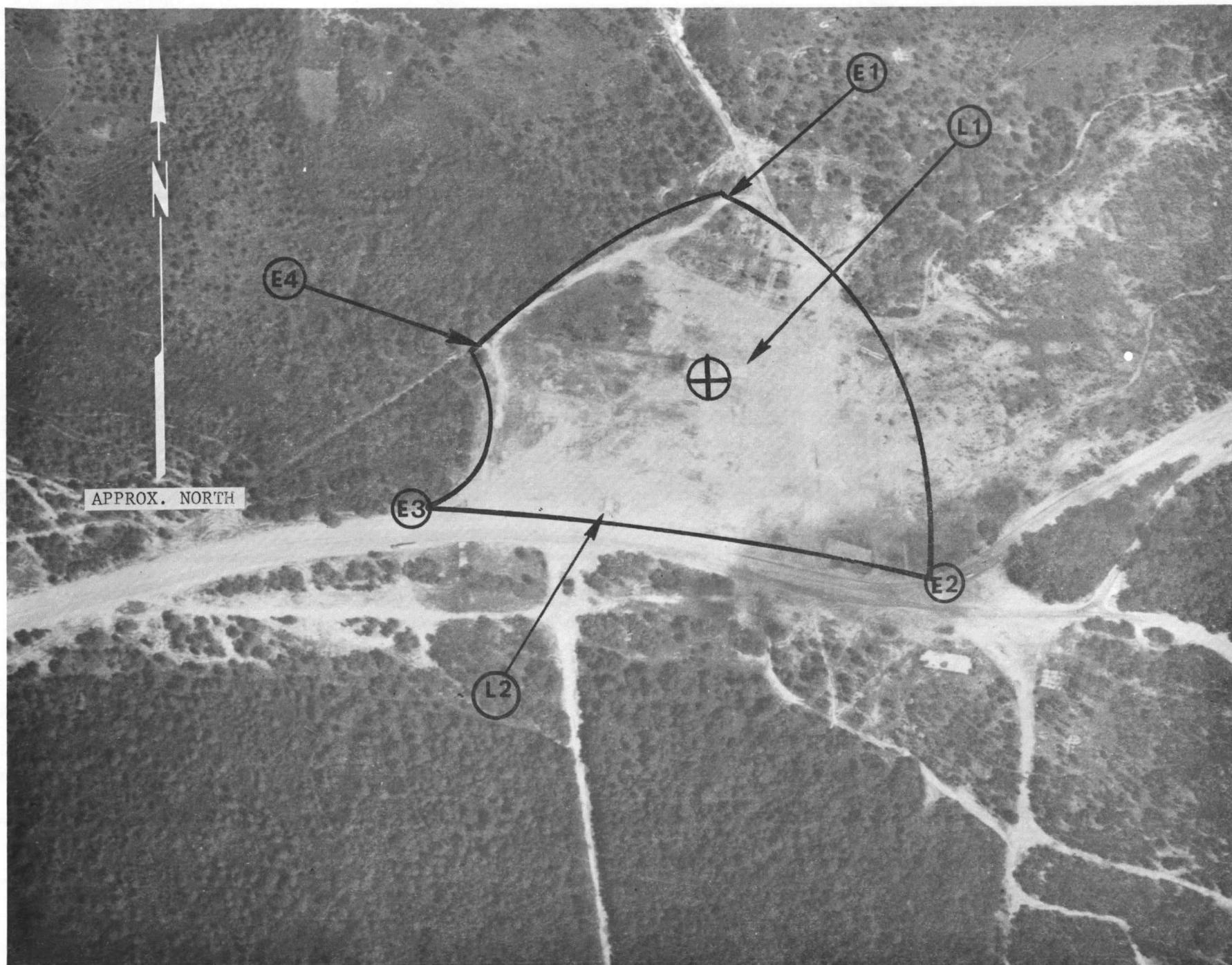
COUNTRY	UNITED STATES	RECORD ID	0410LM0005	TDI CAT	70610
NAME	CONDOR	LAT/LONG	343809N0772644W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: CROW
- 2) BE NO./TDI CATEGORY CODE: 0410LM0006/70610
- 3) CENTER COORDINATE/GEO: 343650N0771649W
- 4) CENTER COORDINATE/UTM: 18STP90963238
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 220 METERS BY 150 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 135.0 MAG/
17.9 KM
- 9) EXITS: CROSS-COUNTRY EXITS ON SOUTHERN SIDE OF LZ.
E1: DIRT TRACK EXTENDING NNW TO SNEADS FERRY ROAD.
E2: DIRT TRACK EXTENDING SW INTERSECTING WITH A DIRT ROAD.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: L1: CEMENT SLAB.
L2: SMALL BUILDING.
- 12) SURFACE MATERIAL: FINE SAND.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA G, SUBDIVISION
GF. LZ APPROXIMATELY 200 METERS E OF G-2 FIRING RANGE. EXTERNAL LIFT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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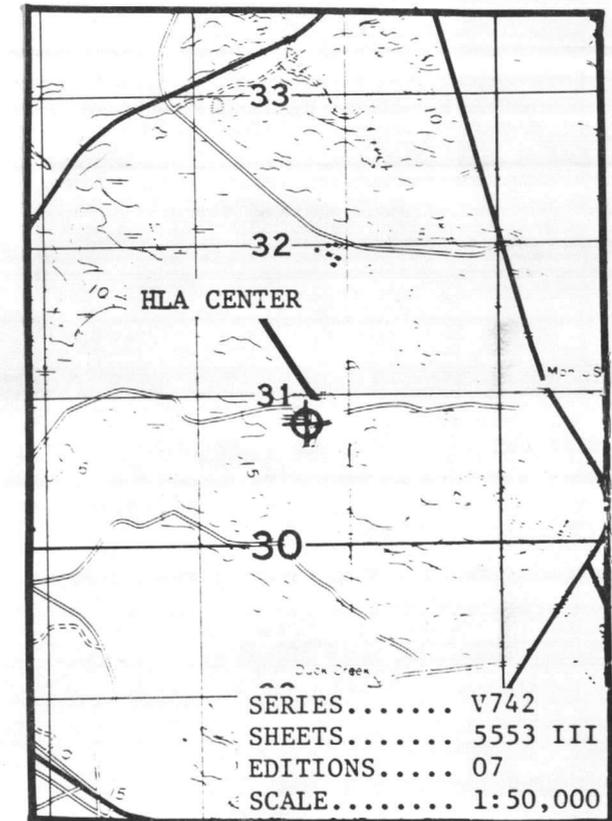
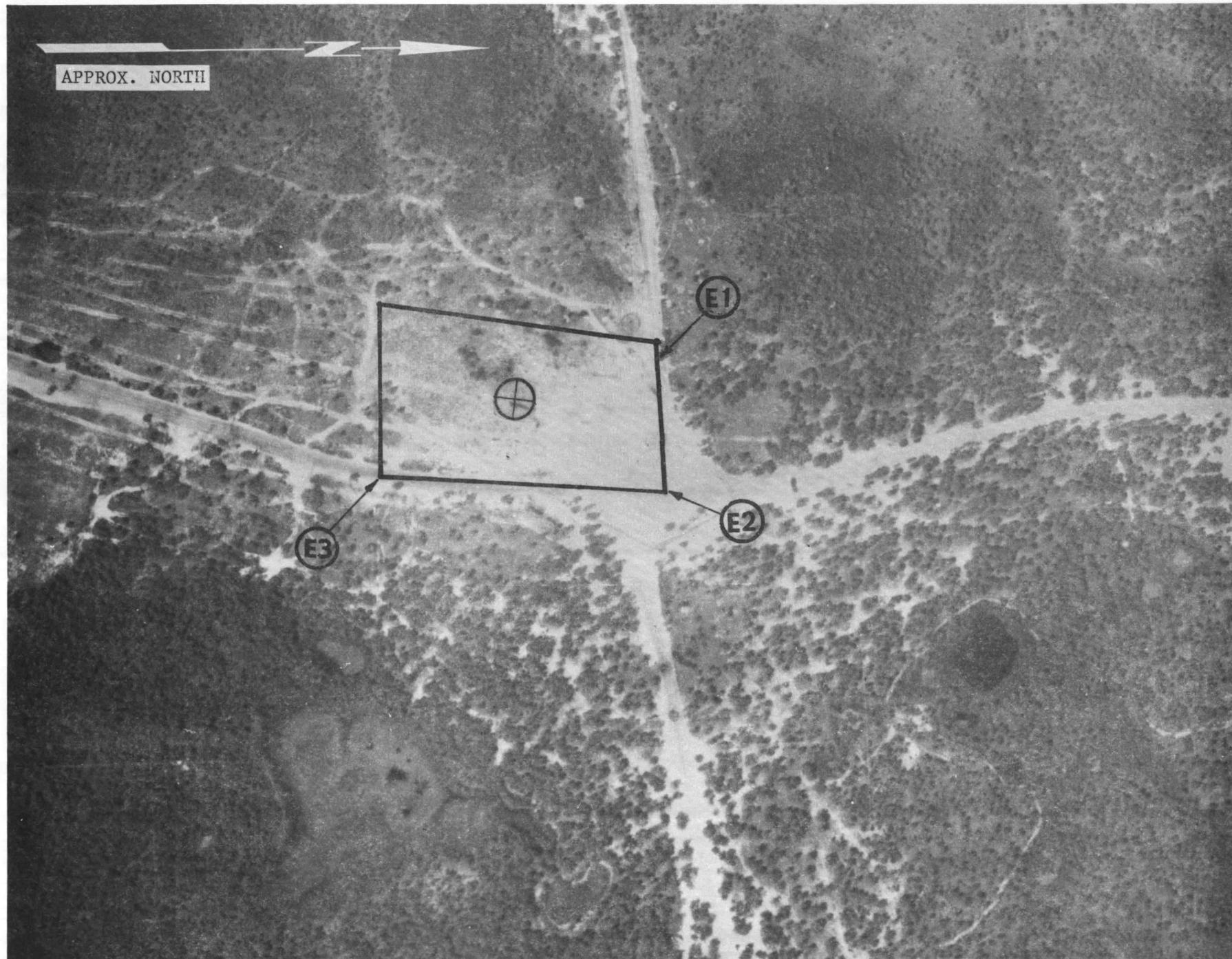
COUNTRY	UNITED STATES	RECORD ID	0410LM0006	TDL CAT	70610
NAME	CROW	LAT/LONG	343650N0771649W		

PRODUCED BY: 2D FIIU
 FOR: 2D MARDIV

- 1) NAME: DODO
- 2) BE NO./TDI CATEGORY CODE: 0410LM0007/70610
- 3) CENTER COORDINATE/GEO: 343556N0771815W
- 4) CENTER COORDINATE/UTM: 18STP88713079
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 150 METERS BY 240 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 140.5 MAG/
17.2 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS W INTERSECTING WITH A DIRT ROAD.
E2: DIRT ROAD EXTENDS N INTERSECTING WITH A DIRT ROAD.
E3: DIRT ROAD EXTENDS E INTERSECTING WITH A TWO LANE HARD-SURFACED
ROAD.
E4: DIRT ROAD EXTENDS S INTERSECTING WITH A TWO LANE HARD-SURFACED
ROAD.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: SMALL BUSHES AND SCRUBS THROUGHOUT LZ.
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA H, SUBDIVISION
HB. EXTERNAL LIFT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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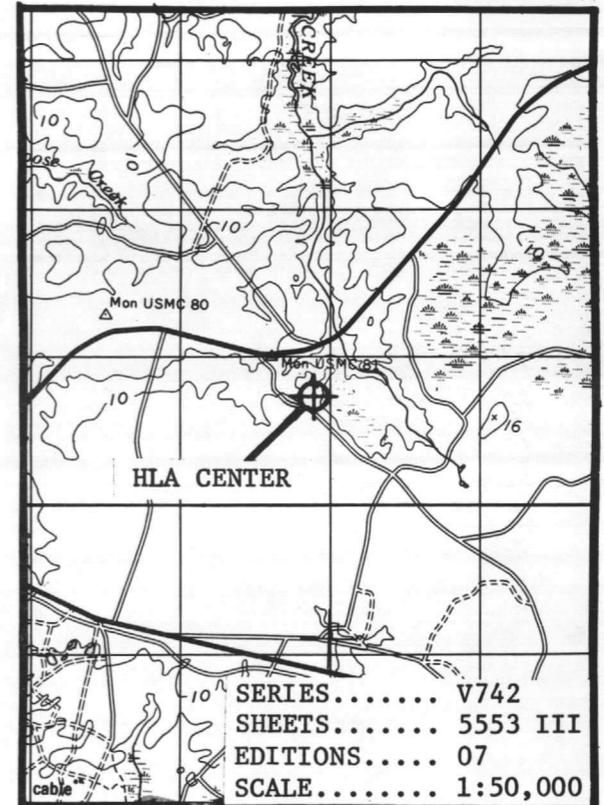
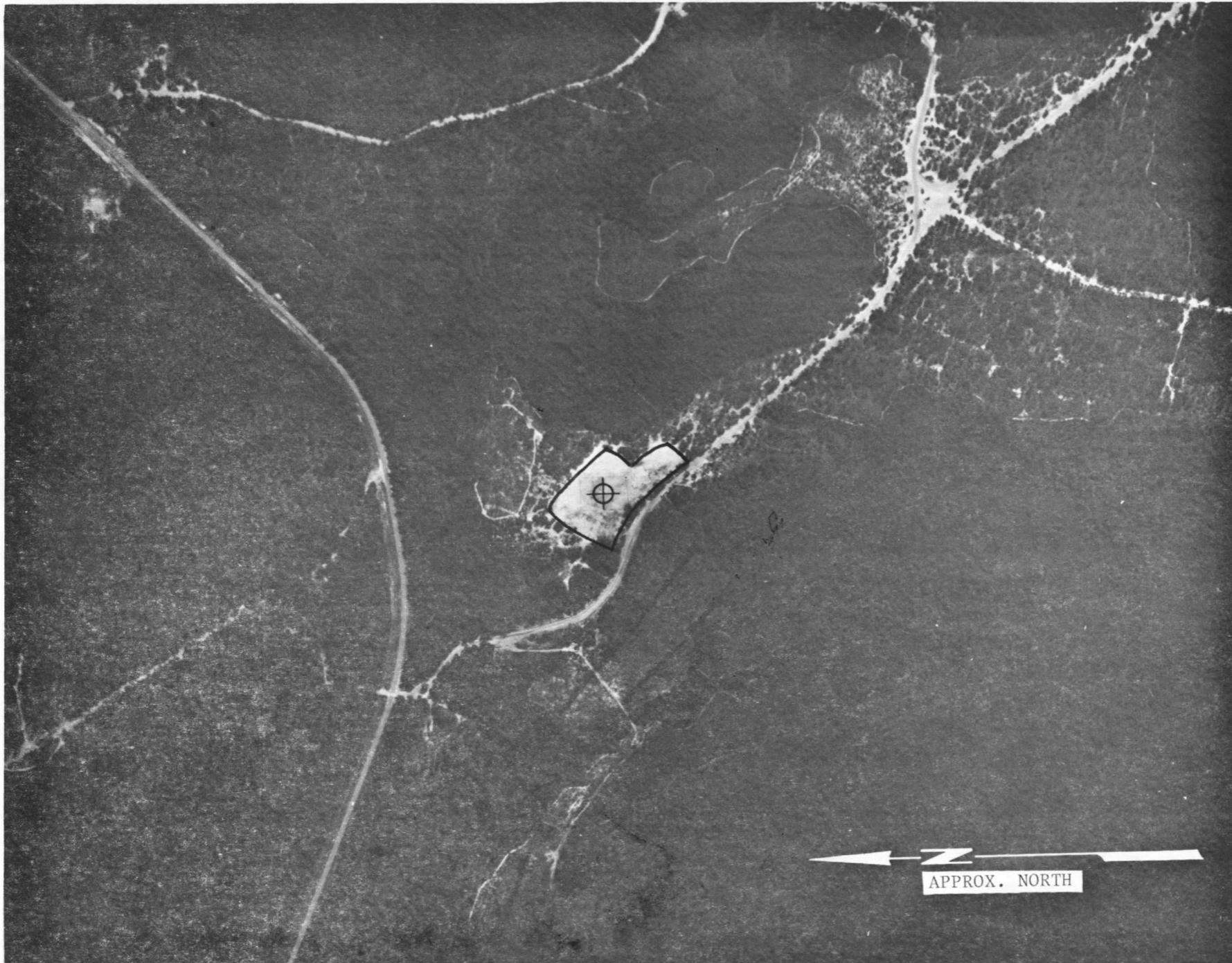
COUNTRY	UNITED STATES	RECORD ID	0410LM0007	TDICAT	70610
NAME	DODO	LAT/LONG	343556N0771815W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: DOVE
- 2) BE NO./TDI CATEGORY CODE: 0410LM0008/70610
- 3) CENTER COORDINATE/GEO: 343553N0772007W
- 4) CENTER COORDINATE/UTM: 18STP85883072
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 120 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 149.5 MAG/
15.3 KM
- 9) EXITS: CROSS COUNTRY TRAILS LOCATED AROUND ENTIRE PERIMETER OF LZ.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA H, SUBDIVISION
HB. EXTERNAL LIFT AUTHORIZED. LZ NOT RECOMENDED DUE TO LOOSE SAND.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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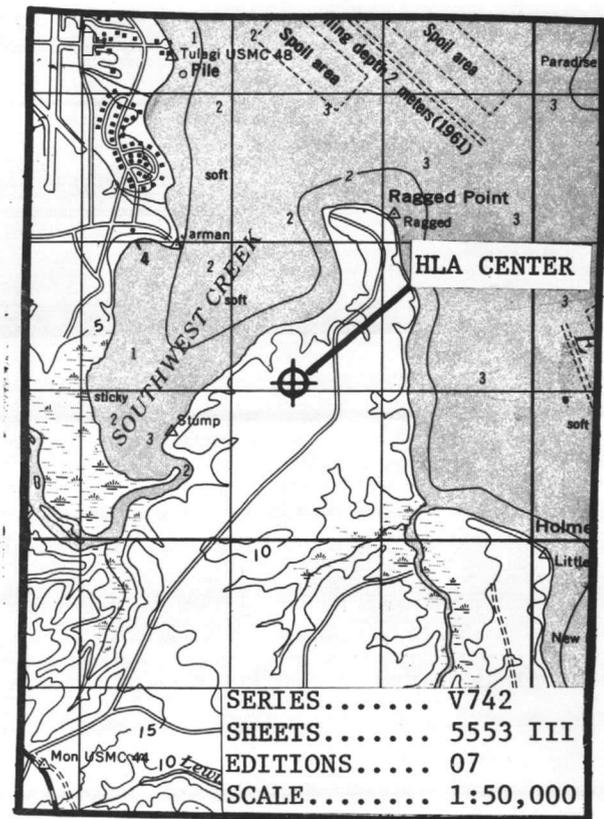
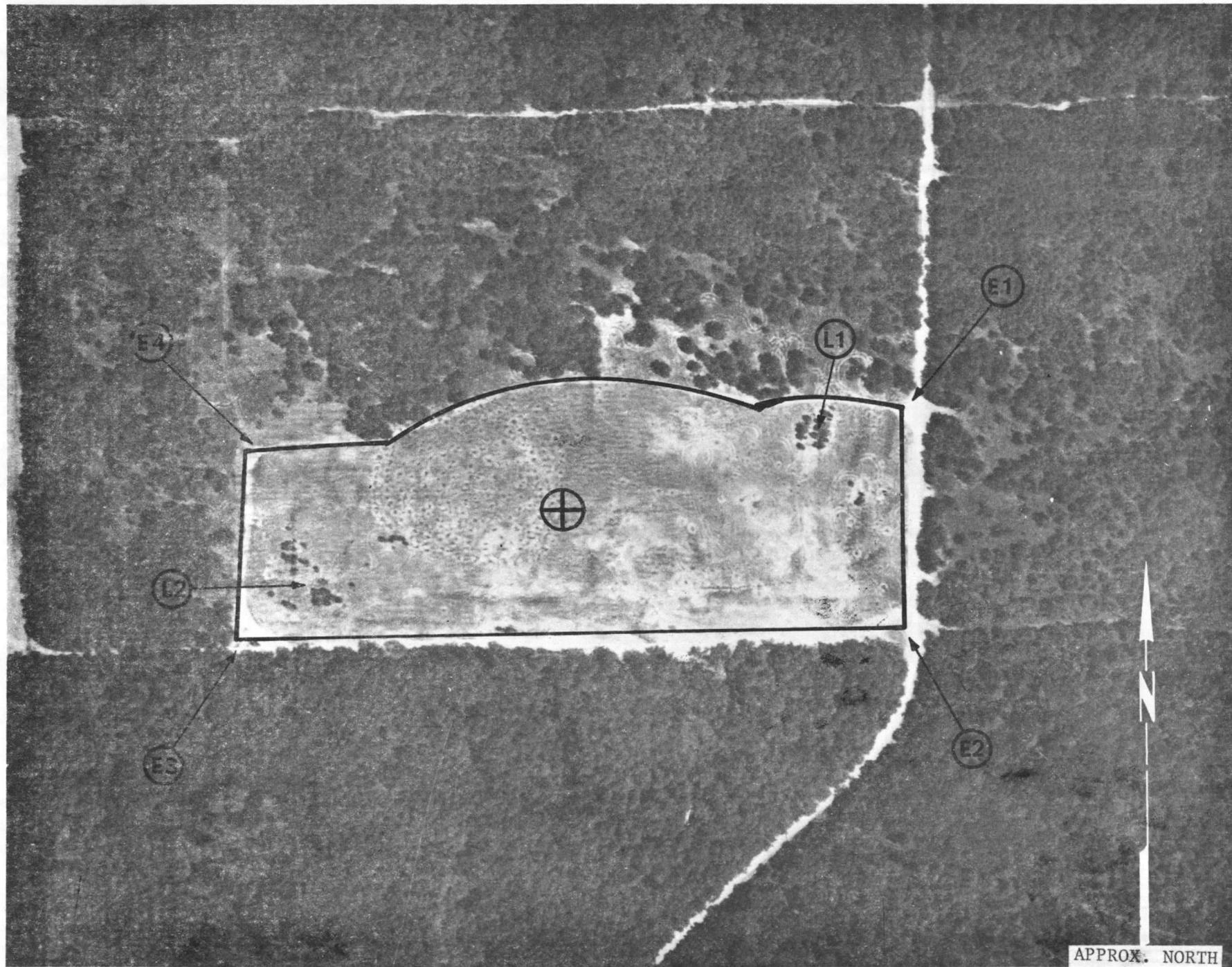
COUNTRY	UNITED STATES	RECORD ID	0410LM0008	TDI CAT	70610
NAME	DOVE	LAT/LONG	343553N0772007W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: EAGLE
- 2) BE NO./TDI CATEGORY CODE: 0410LM0009/70610
- 3) CENTER COORDINATE/GEO: 344117N0772506W
- 4) CENTER COORDINATE/UTM: 18STP78484093
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 400 METERS BY 150 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 141.5 MAG/
2.8 KM
- 9) EXITS: E1: DIRT ROAD EXTENDING N INTERSECTING WITH DIRT ROADS, TRAILS AND
TRACKS.
E2: DIRT ROAD EXTENDS SW TO VERONA LOOP ROAD.
E3: DIRT ROAD EXTENDS W TO A FIELD.
E4: DIRT ROAD EXTENDS N INTERSECTING WITH DIRT ROADS, TRAILS AND
TRACKS.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: L1: SCRUBS LOCATED IN ENE CORNER OF LZ.
L2: SCRUBS LOCATED IN WSW CORNER OF LZ.
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS AND SCRUBS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR GOOD
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA M, SUBDIVISION
MC. EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



APPROX. NORTH

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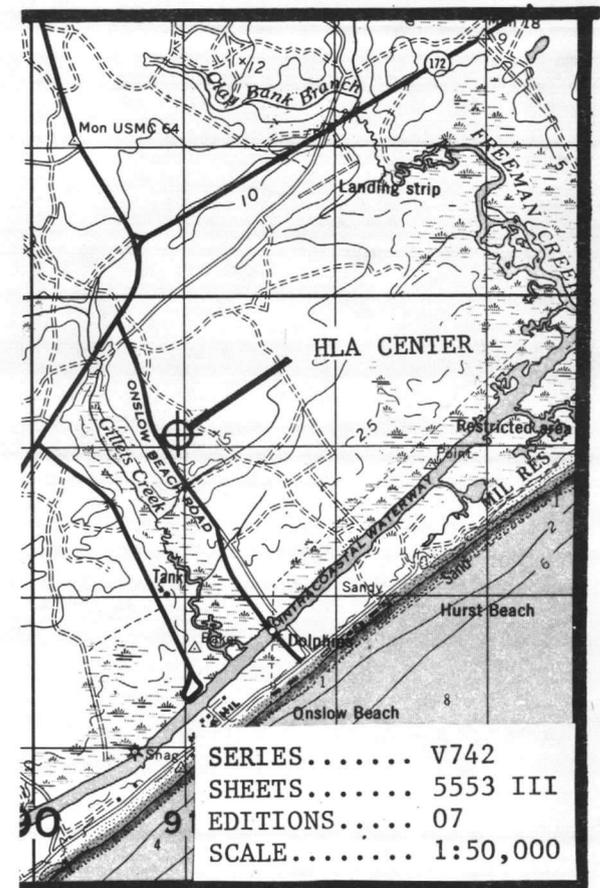
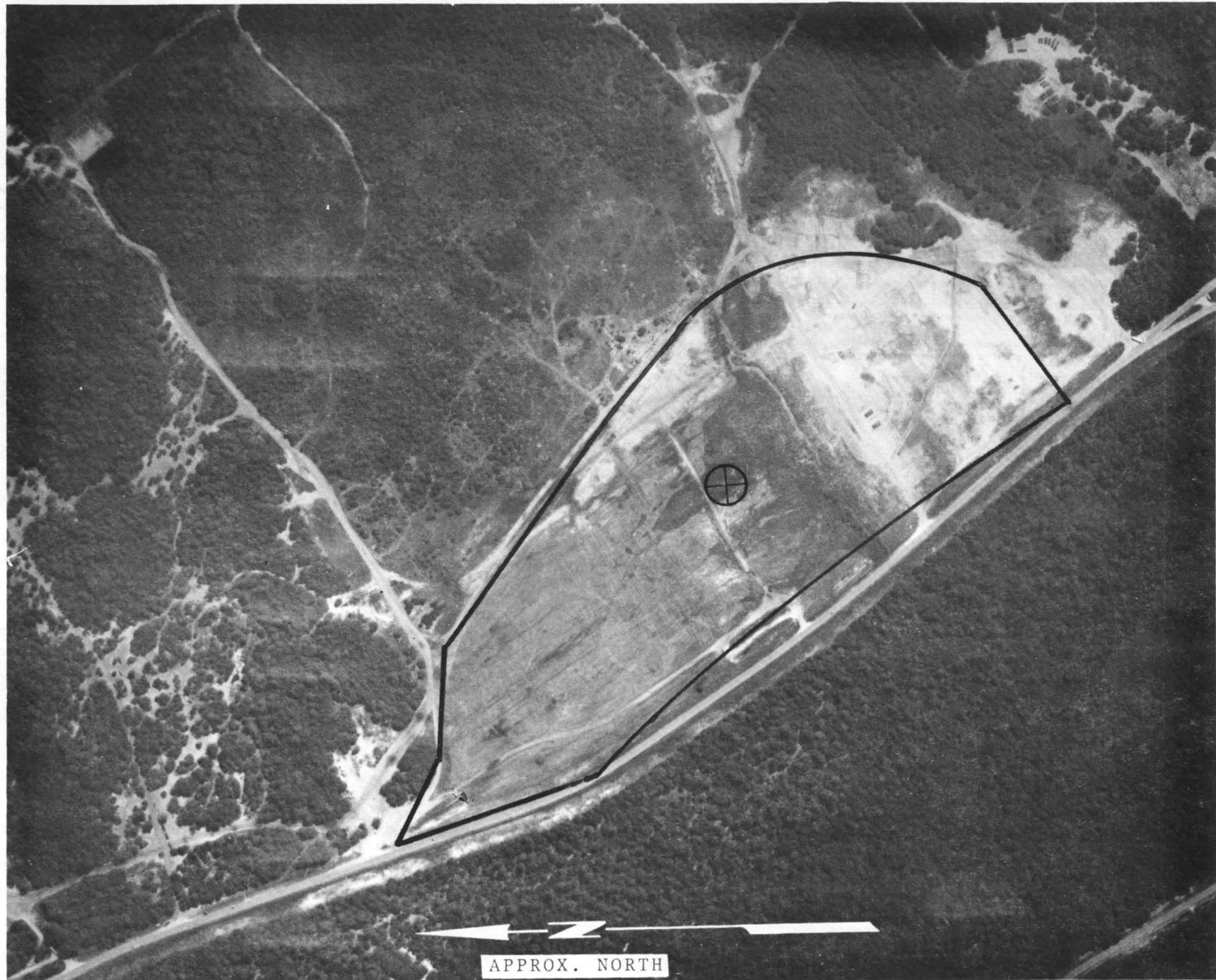
COUNTRY	UNITED STATES	RECORD ID	0410LM0009	TDI CAT	70610
NAME	EAGLE	LAT/LONG	344117N0772506W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: FALCON (WOODCHUCK)
- 2) BE NO./TDI CATEGORY CODE: 0410LM0010/70610
- 3) CENTER COORDINATE/GEO: 343451N0771636W
- 4) CENTER COORDINATE/UTM: 18STP91202870
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 330 METERS BY 275 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 141.5 MAG/
20.4 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED AROUND ENTIRE PERIMETER OF LZ.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS AND SCRUBS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA G, SUBDIVISION
GG. EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

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COUNTRY	UNITED STATES	RECORD ID	0410LM0011	TDI CAT	70610
NAME	FALCON (WOODCHUCK)	LAT/LONG	343445N0771710W		

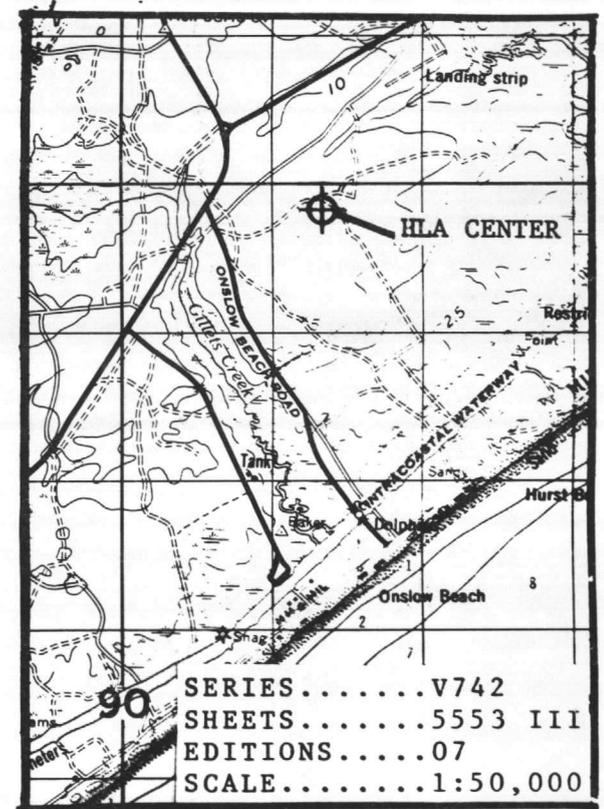
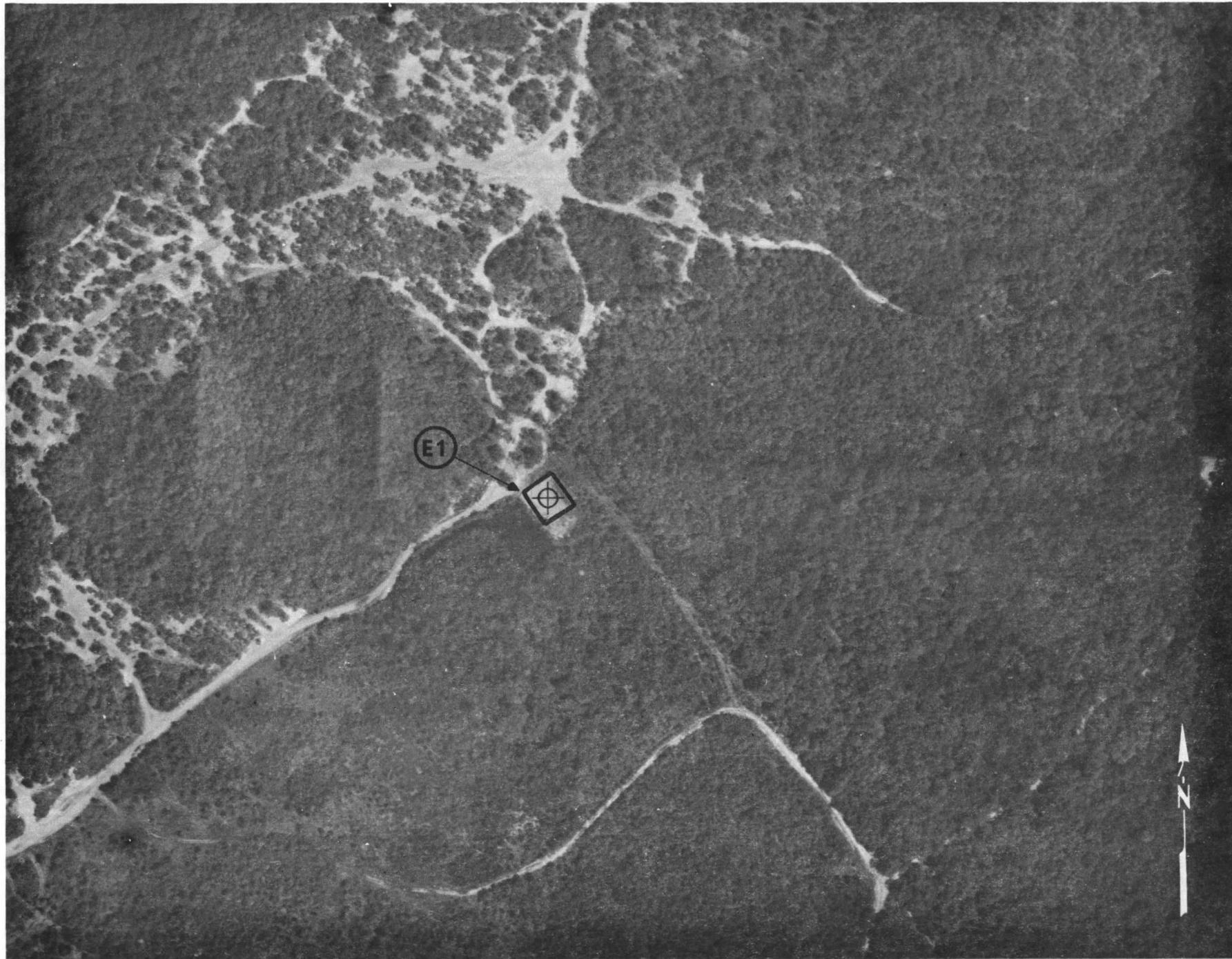
PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: GANDER
- 2) BE NO./TDI CATEGORY CODE: 0410LM0011/70610
- 3) CENTER COORDINATE/GEO: 343527N0771635W
- 4) CENTER COORDINATE/UTM: 91332984
- 5) SHAPE: SQUARE
- 6) DIMENSIONS: 100 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) - REFERENCE POINT: 139.5 MAG/
19.8 KM
- 9) EXITS: E1: DIRT ROAD N EXTENDS TO CROSS-COUNTRY TRAILS
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIALS: SAND WITH STEEL MATTING.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	GOOD	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA G, SUBDIVISION
GG. EXTERNAL LIFT NOT AUTHORIZED. CAUTION SHOULD BE USED ON APPROACH TO LZ DUE
TO TREES SURROUNDING LZ, ALSO DURING LANDING DUE TO SCHRUBS WITHIN LZ PERIMETER.

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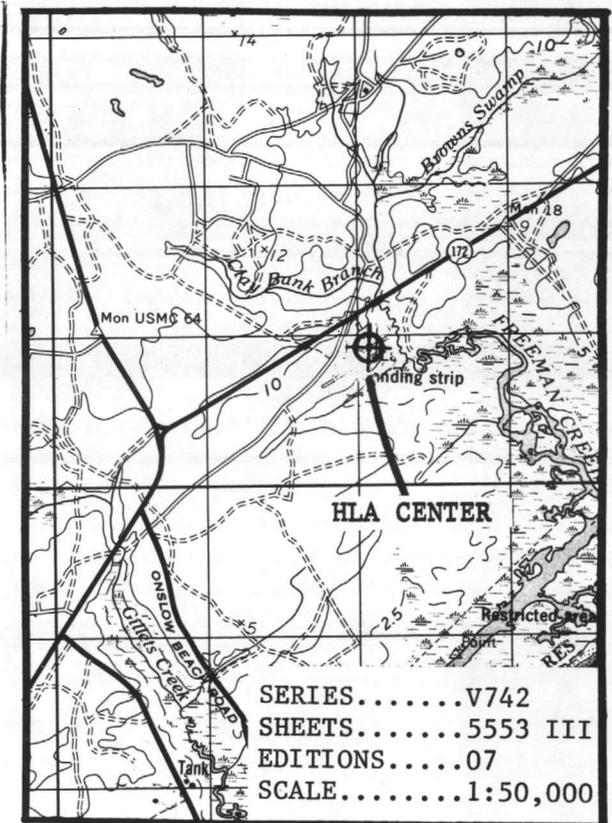
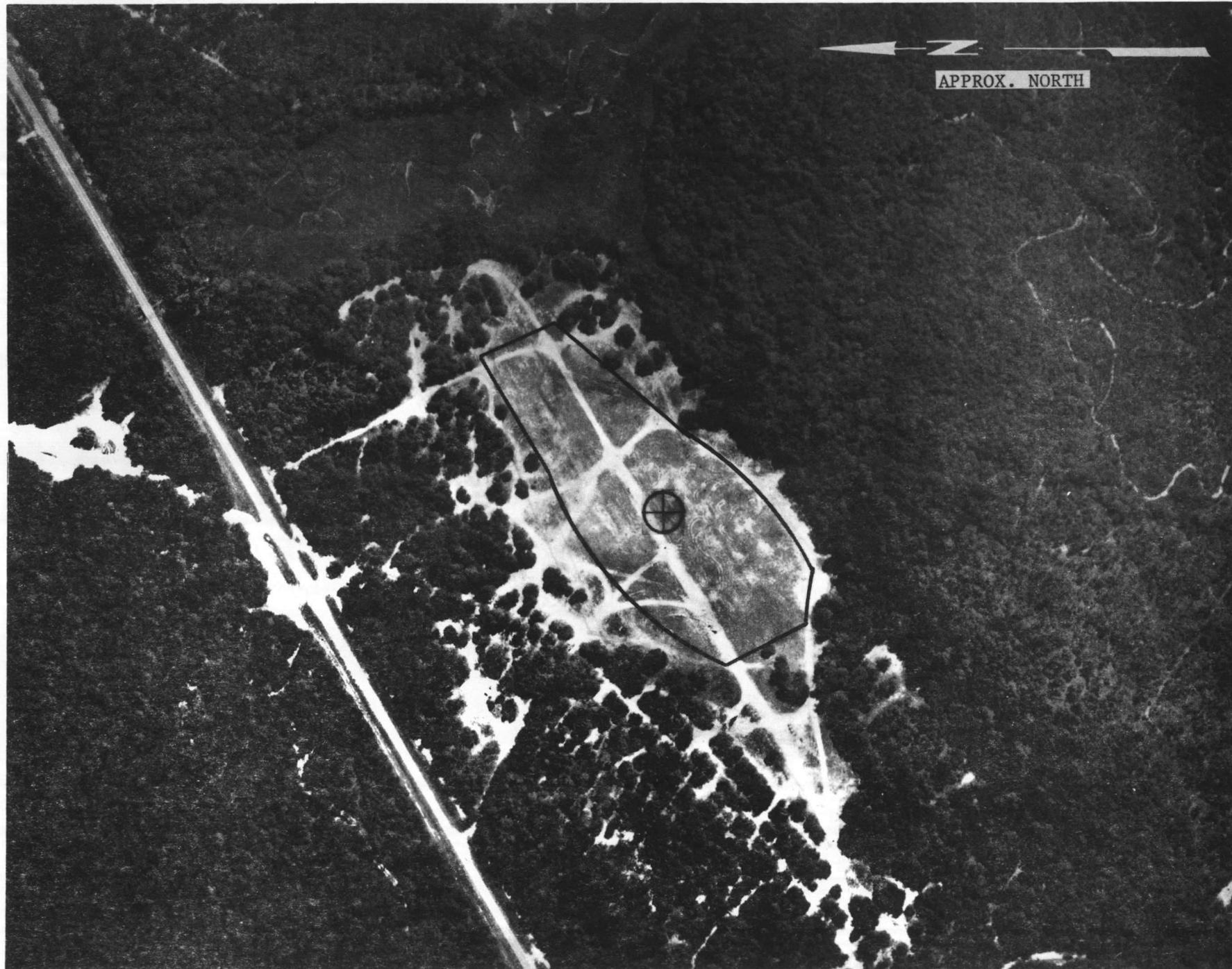
COUNTRY UNITED STATES	RECORD ID 0410LM0011	TDI CAT 70610
NAME GANDER	LAT/LONG 343511N0771648W	

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: GOOSE
- 2) BE NO./TDI CATEGORY CODE: 0410LM0012/70610
- 3) CENTER COORDINATE/GEO: 343558N0771608W
- 4) CENTER COORDINATE/UTM: 18STP91963075
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 120 METERS BY 260 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 2 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 136.5 MAG/
19.6 KM
- 9) EXITS: CROSS-COUNTRY DIRT ROADS N, E AND W INTERSECT WITH RT. 172.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: SANDY SOIL WITH SPARSE GRASS AND SCATTERED SCRUBS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: GOOD FAIR
TRACKED: GOOD GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA G, SUBDIVISION
GG. EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE. TREES TO
THE SOUTH WILL HAMPER MOVEMENT.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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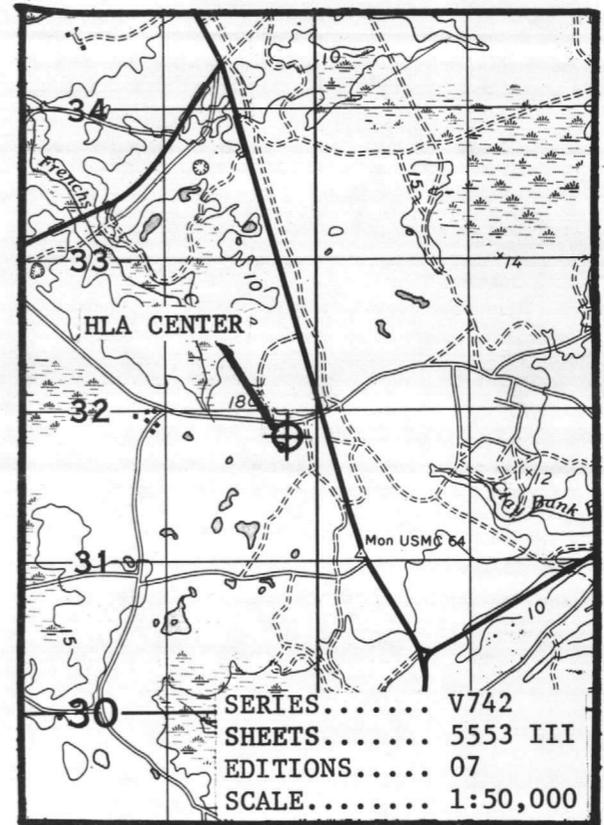
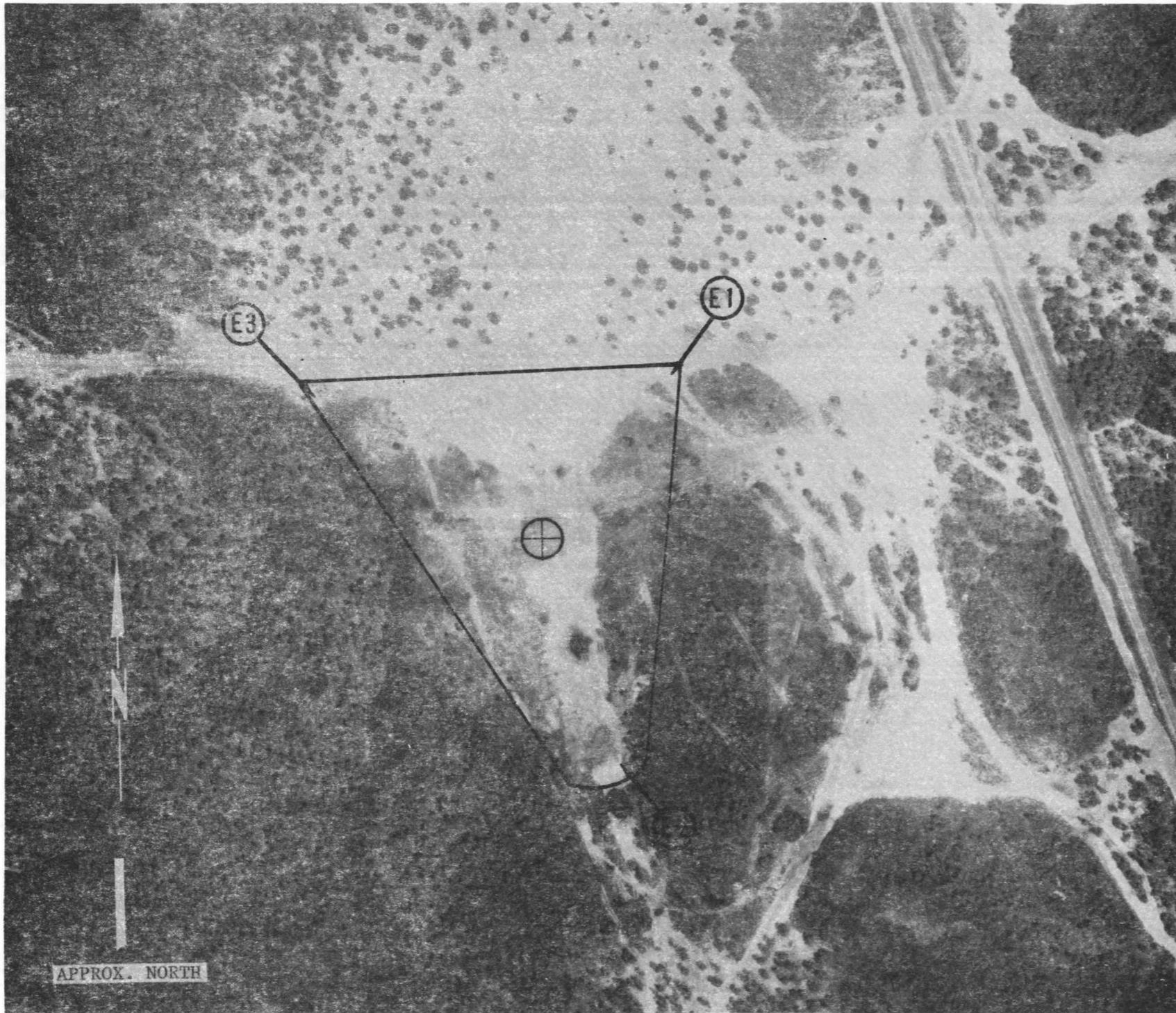
COUNTRY	UNITED STATES	RECORD ID	0410LM0012	TDI CAT	70610
NAME	GOOSE	LAT/LONG	343558N0771608W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: HAWK
- 2) BE NO./TDI CATEGORY CODE: 0410LM0013/70610
- 3) CENTER COORDINATE/GEO: 343630N0771741W
- 4) CENTER COORDINATE/UTM: 18STP89613179
- 5) SHAPE: TRIANGULAR
- 6) DIMENSIONS: 125 METERS BY 280 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 138.0 MAG/
17.2 KM
- 9) EXITS: E1: DIRT ROAD EXTENDING E INTERSECTING WITH A TWO LANE HARD-SURFACE ROAD.
E2: DIRT ROAD EXTENDING S TO TRACKS AND TRAILS.
E3: DIRT ROAD EXTENDING W INTERSECTING WITH A DIRT ROAD.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: SCATTERED SCRUBS THROUGHOUT THE LZ.
- 12) SURFACE MATERIAL: FINE SAND WITH SCATTERED SCRUBS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA H, SUBDIVISION HE. EXTERNAL LIFT AUTHORIZED. THIS AREA IS CURRENTLY BEING USED AS LZ HAWK VICE THE ACTUAL LOCATION WHICH IS LOCATED APPROXIMATELY 200 METERS NORTH.

HLA ILLUSTRATION SHEET

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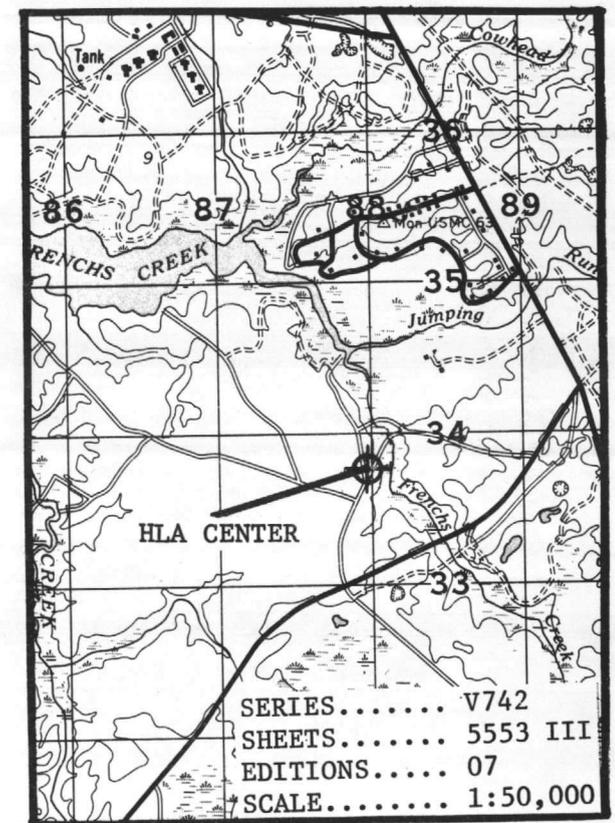
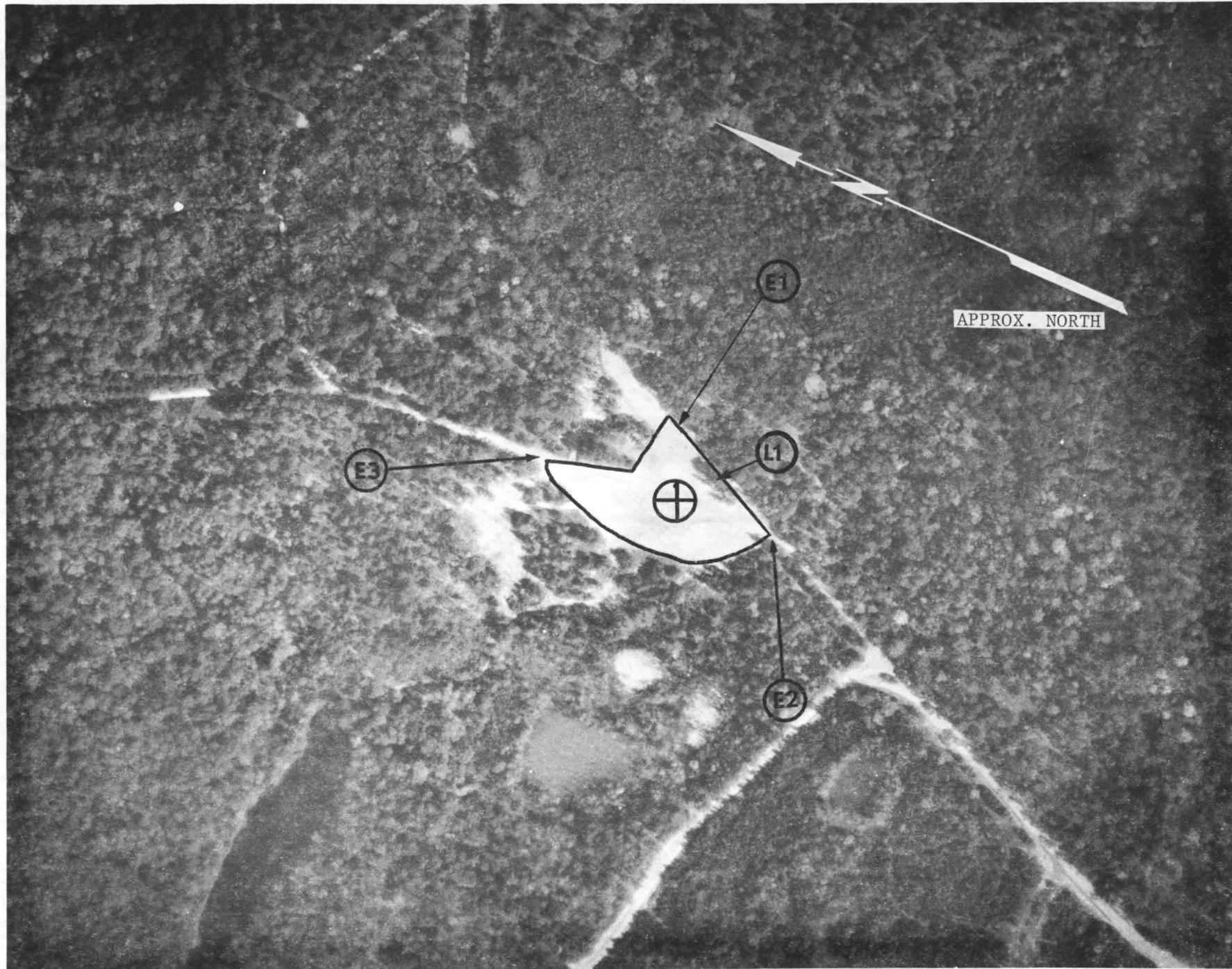
COUNTRY UNITED STATES	RECORD ID 0410LM0013	TDI CAT 70610
NAME HAWK	LAT/LONG 343630N0771741W	

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: JAYBIRD
- 2) BE NO./TDI CATEGORY CODE: 0410LMO014/70610
- 3) CENTER COORDINATE/GEO: 343732N0771849W
- 4) CENTER COORDINATE/UTM: 18STP87923374
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 70 METERS BY 120 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 136.5 MAG/
14.7 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS NE TO MARINES RD.
E2: DIRT ROAD EXTENDS S TO MARINES RD.
E3: DIRT ROAD EXTENDS N TO FRENCHS CREEK.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: L1: TREES
- 12) SURFACE MATERIAL: COARSE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA H, SUBDIVISION
HD. EXTERNAL LIFT AUTHORIZED.

HLA ILLUSTRATION SHEET

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COUNTRY UNITED STATES	RECORD ID 0410LM0014	TDI CAT 70610
NAME JAYBIRD	LAT/LONG 343732N0771849W	

PRODUCED BY: 2D FIU
 FOR: 2D MARDIV

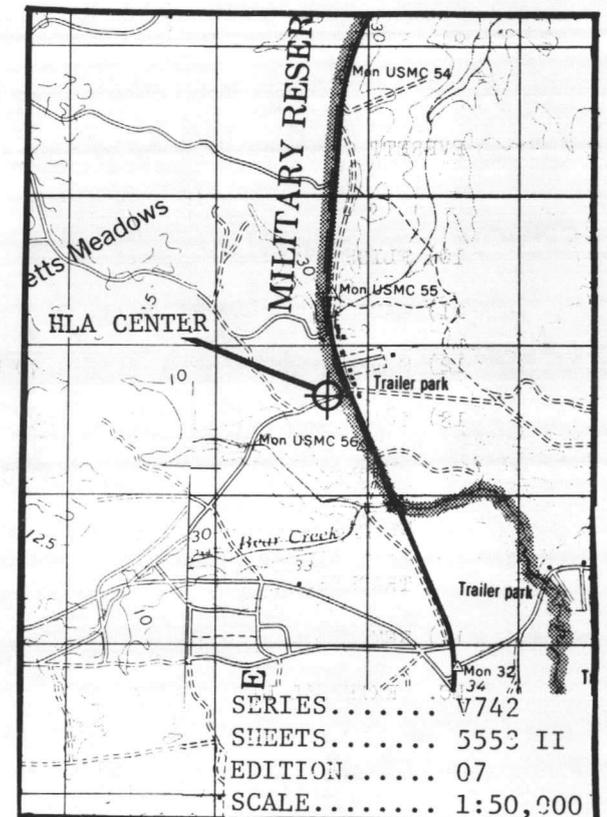
- 1) NAME: LARK
- 2) BE NO./TDI CATEGORY CODE: 0410LM0015/70610
- 3) CENTER COORDINATE/GEO: 344014N0771432W
- 4) CENTER COORDINATE/UTM: 18STP94803860
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 600 METERS BY 190 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 110.5 MAG/
19.8 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS E TO RT. 172.
E2: DIRT ROAD EXTENDS SW TO LYMAN RD.
E3: DIRT ROAD EXTENDS NW TO HWY 24, E TO RT 172 AND W TO

TRAINING AREA F.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: COARSE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA Q, SUBDIVISION
QA. EXTERNAL LIFT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



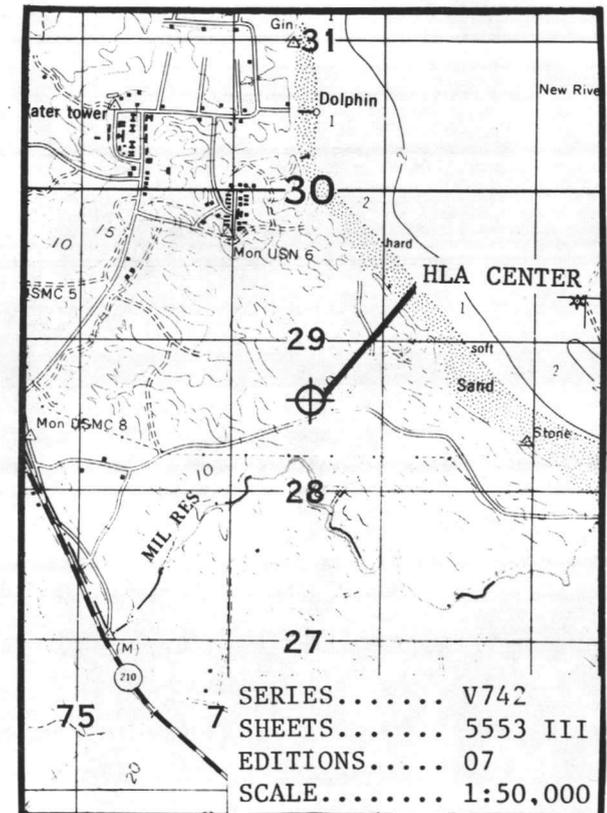
COUNTRY UNITED STATES	RECORD ID 0410LM0015	TDI CAT 70610
NAME LARK	LAT/LONG 344014N 0771432W	

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: OWL
- 2) BE NO./TDI CATEGORY CODE: 0410LM0016/70610
- 3) CENTER COORDINATE/GEO: 343433N0772619W
- 4) CENTER COORDINATE/UTM: 18STP76212859
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 100 METERS BY 190 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 188.5 MAG/
15 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS N TO THE NEW RIVER.
E2: DIRT ROAD EXTENDS SE TO INTERSECTION OF THE NEW RIVER AND
EVERETT CREEK INLET.
E3: DIRT ROAD EXTENDS W TO RT. 210.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA L, SUBDIVISION
LC. EXTERNAL LIFT AUTHORIZED. DENSE TREES AND SCRUBS SURROUND THE LZ.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0016	TDICAT	70610
NAME	OWL	LAT/LONG	343433N0772619W		

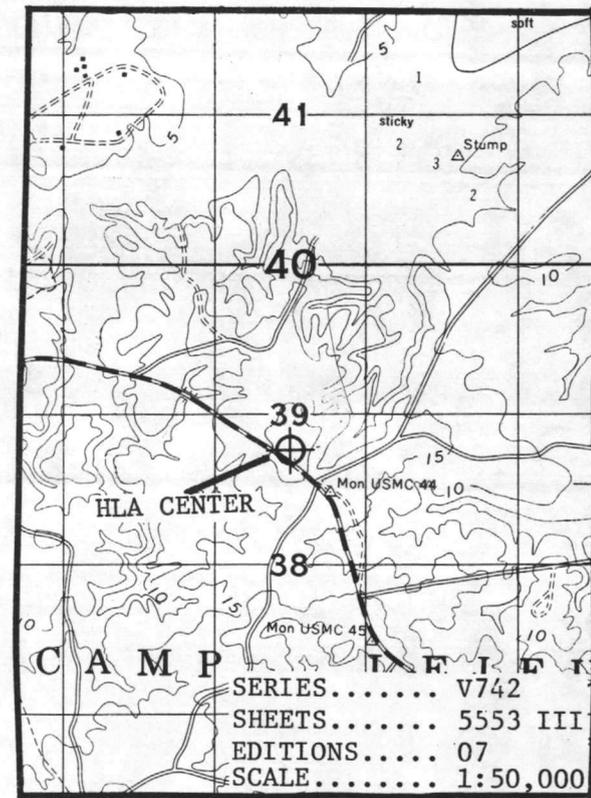
PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: PARROT
- 2) BE NO./TDI CATEGORY CODE: 0410LM0017/70610
- 3) CENTER COORDINATE/GEO: 344003N0772619W
- 4) CENTER COORDINATE/UTM: 18STP77613871
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 150 METERS BY 75 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 186.5 MAG/
4.1 KM
- 9) EXITS: CROSS-COUNTRY EXITS ALONG ENTIRE PERIMETER OF LANDING ZONE.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	POOR	FAIR
TRACKED:	FAIR	GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA M, SUBDIVISION MB. NE PORTION OF LZ CONSIST OF SWAMPY TERRAIN IN WHICH VEHICLE AND TROOP MOVEMENTS WILL BE HAMPERED. EXTERNAL LIFT AUTHORIZED. TELEPHONE LINES PARALLEL EAST PERIMETER OF LANDING ZONE.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0017	TDI CAT	70610
NAME	PARROT	LAT/LONG	344003N0772619W		

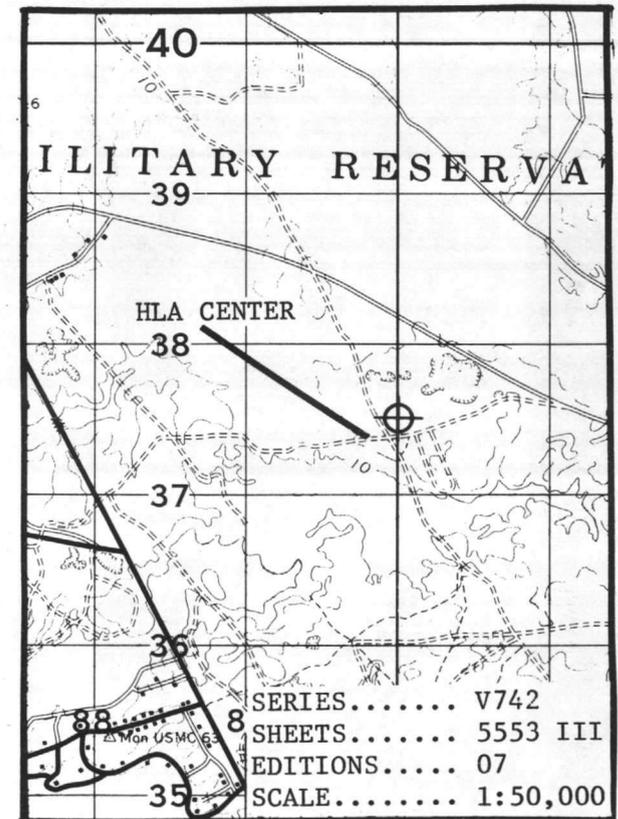
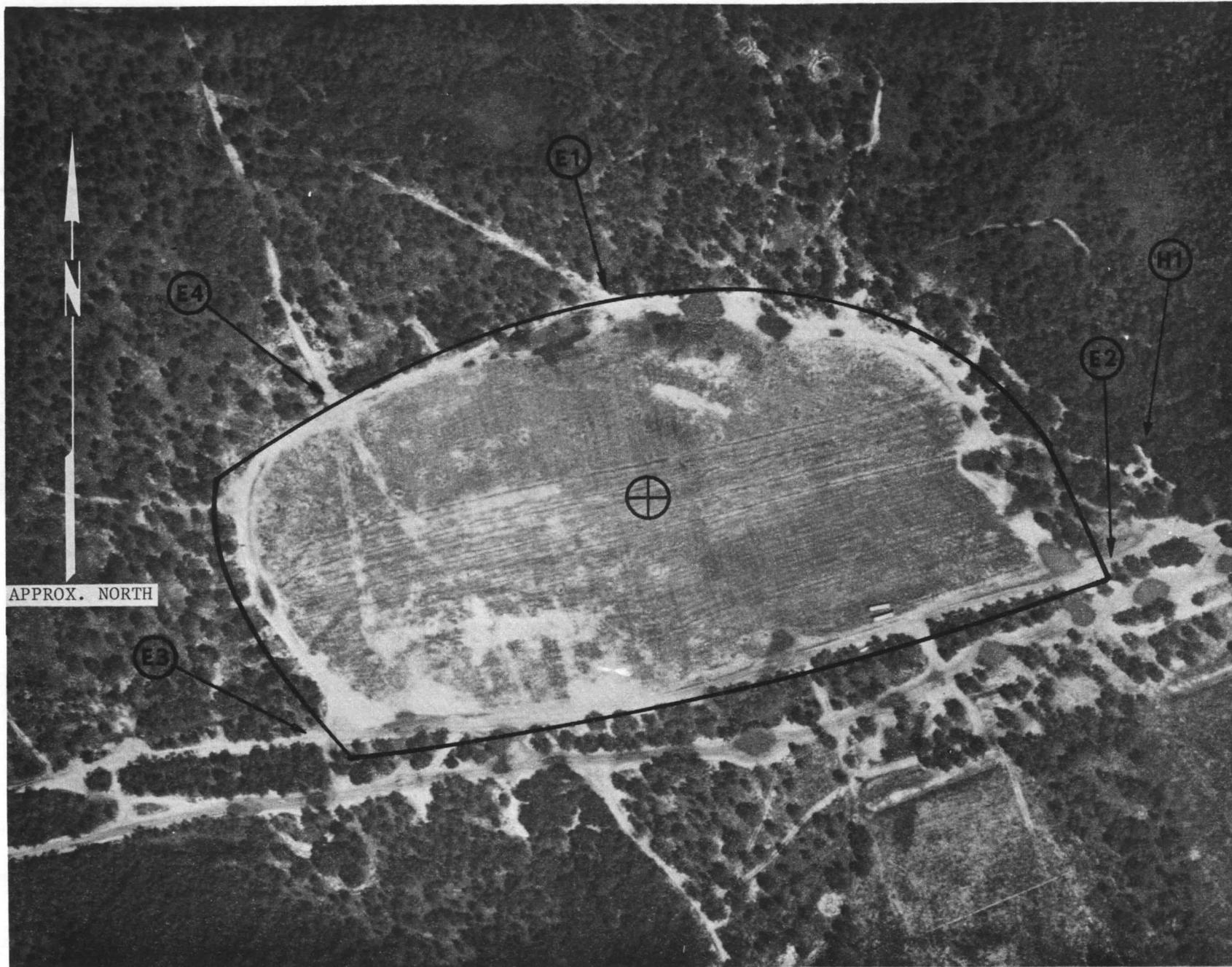
PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: PENGUIN
- 2) BE NO./TDI CATEGORY CODE: 0410LM0018/70610
- 3) CENTER COORDINATE/GEO: 343935N0771729W
- 4) CENTER COORDINATE/UTM: 18STP90003750
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 430 METERS BY 230 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 119.0 MAG/
14.6 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED ALONG ROAD S SIDE OF LZ.
E1: DIRT TRACK EXTENDS NW INTERSECTING WITH A DIRT ROAD.
E2: DIRT ROAD EXTENDS E CONNECTING TO LEYMAN ROAD.
E3: DIRT ROAD EXTENDS W INTERSECTING WITH A DIRT ROAD.
E4: DIRT ROAD EXTENDS N CONNECTING TO LEYMAN ROAD.
- 10) FLIGHT HAZARDS: H1: FIRETOWER.
- 11) LANDING HAZARDS: SMALL PONDS LOCATED ALONG N AND E PERIMETER OF LZ.
- 12) SURFACE MATERIAL: COARSE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	POOR	FAIR
TRACKED:	FAIR	GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA F, SUBDIVISION
FD. EXTERNAL LIFT AUTHORIZED. ALSO USED AS A PARACHUTE DROP ZONE.

HLA ILLUSTRATION SHEET

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COUNTRY	UNITED STATES	RECORD ID	0410LM0018	TDI CAT	70610
NAME	PENGUIN	LAT/LONG	343935N0771729W		

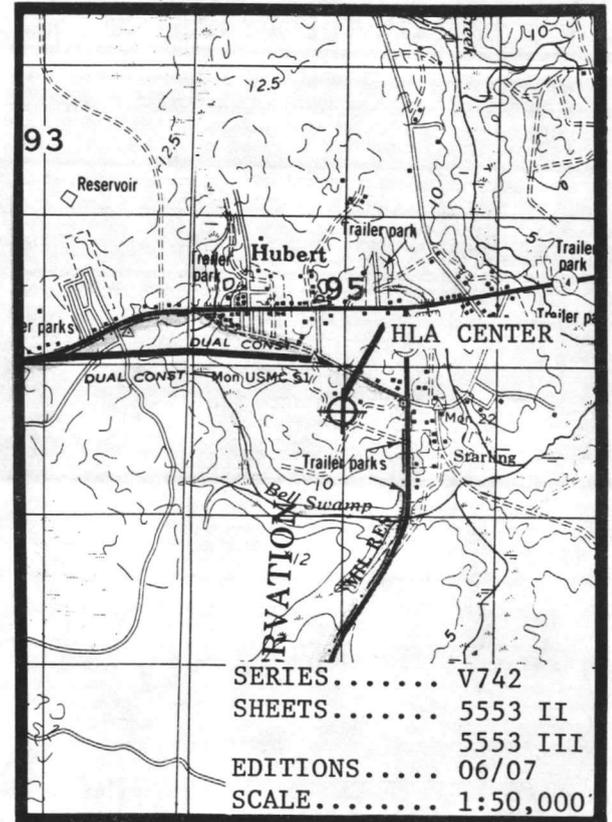
PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: ROBIN
- 2) BE NO./TDI CATEGORY CODE: 0410LM0019/70610
- 3) CENTER COORDINATE/GEO: 344230N0771416W
- 4) CENTER COORDINATE/UTM: 18STP95054278
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 150 METERS BY 250 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 98.5 MAG/
19.6 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS SE TO RT. 172 AND NW TO HWY 24.
E2: DIRT ROAD EXTENDS E TO INTERSECTION OF HWY 24 AND DIRT ROAD.
E3: DIRT TRACK EXTENDS SW TO DEAD END.
- 10) FLIGHT HAZARDS: H1: WATER TOWER.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: SANDY SOIL WITH GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	FAIR	FAIR
TRACKED:	GOOD	GOOD
- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA Q, SUBDIVISION
QA. EXTERNAL LIFT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0019	TDI CAT 70610
NAME ROBIN	LAT/LONG 344230N0771416W	

PRODUCED BY:2D FIU
 FOR:2D MARDIV

- 1) NAME: SPARROW
- 2) BE NO./TDI CATEGORY CODE: 0410LM0020/70610
- 3) CENTER COORDINATE/GEO: 344008N0772036W
- 4) CENTER COORDINATE/UTM: 18STP85313987
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 150 METERS BY 200 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 116.5 MAG/

9.4 KM

- 9) EXITS: E1: TRAIL EXTENDS SE TO A DIRT ROAD.
E2: DIRT ROAD EXTENDS E TO HOLCOMB BLVD.
E3: DIRT ROAD EXTENDS NW TO SMALL U/I BUILT UP AREA.
E4: TRAIL EXTENDS NW TO SMALL U/I BUILT UP AREA.

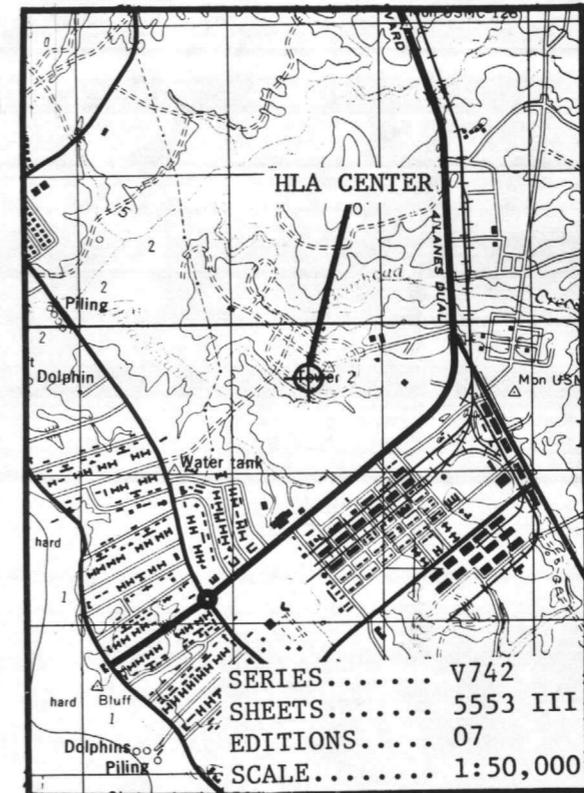
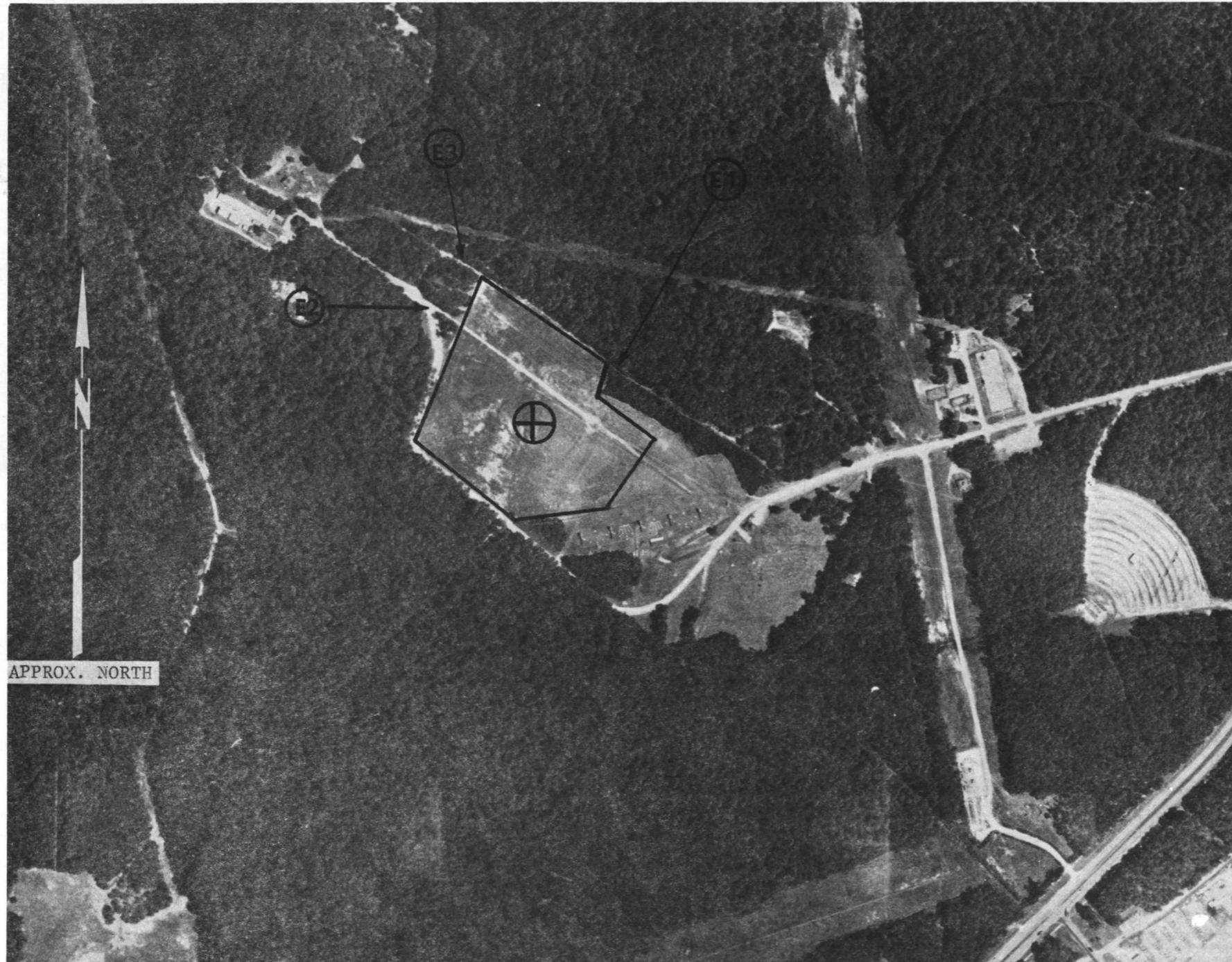
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.

- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD

- 14) REMARKS: TACTICAL LANDING ZONE. LOCATED IN TRAINING AREA D, SUBDIVISION DB. PRIOR TO USING LZ, RANGE CONTROL DUTY OFFICER SHOULD BE CONTACTED AT EXT. 3064. EXTERNAL LIFT AUTHORIZED.

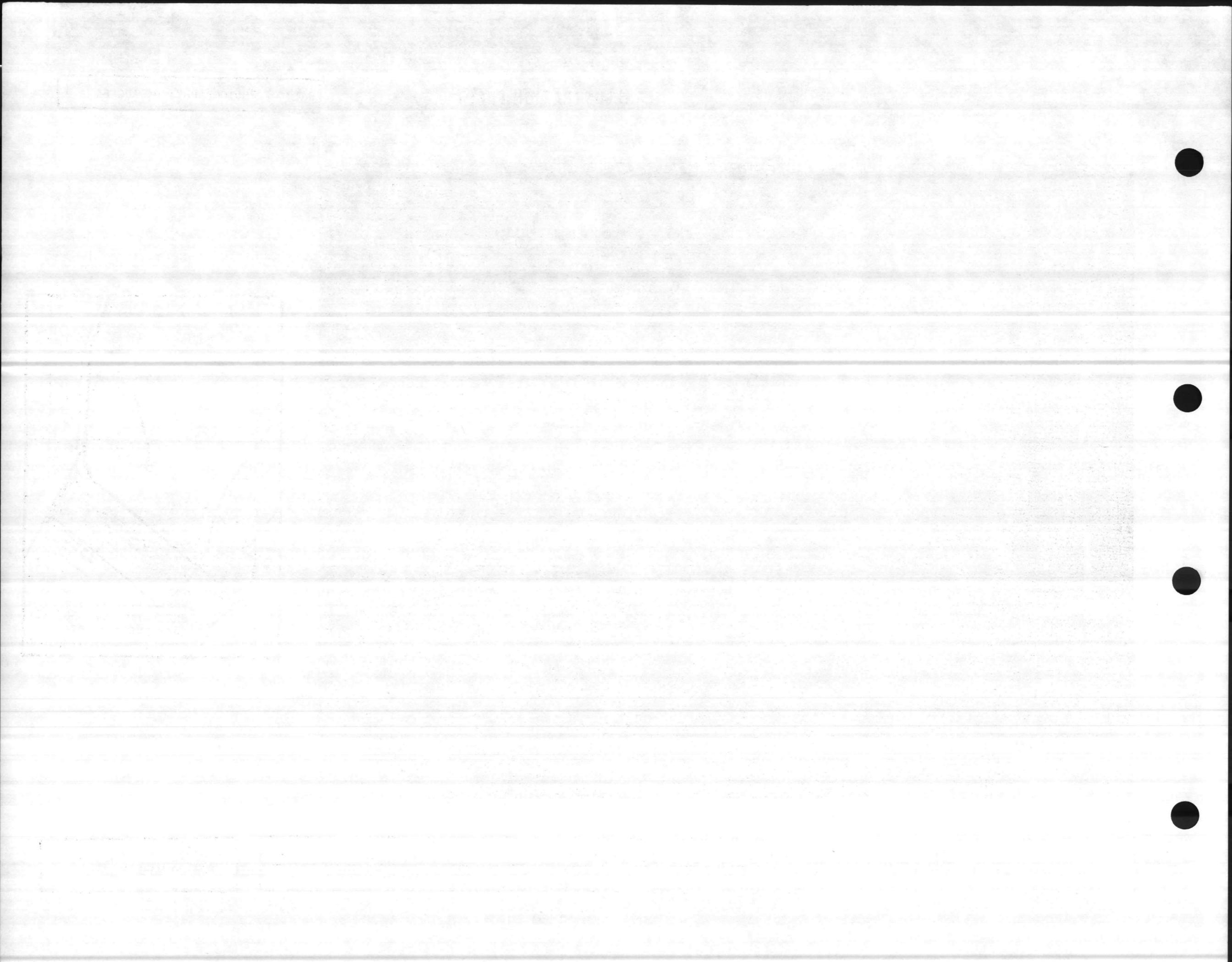
HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



COUNTRY UNITED STATES	RECORD ID 0410LM0020	TDI CAT 70610
NAME SPARROW	LAT/LONG 344008N0772036W	

PRODUCED BY: 2D FIU
FOR: 2D MARDIV



SECTION 2

ADMINISTRATIVE LANDING ZONES

- 1) NAME: MONTFORD PT NO. 1A (TEMPORARY)
- 2) BE NO./TDI CATEGORY CODE: 0410LM0021/70610
- 3) CENTER COORDINATE/GEO: 344344N0772424W
- 4) CENTER COORDINATE/UTM: 18STP79654541
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 175 METERS BY 175 METERS (AVERAGE DIMENSIONS THROUGH CENTER)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 060.0 MAG/

4.2 KM

- 9) EXITS: CROSS-COUNTRY EXITS AROUND ENTIRE PERIMETER OF LANDING ZONE.

E1: TWO LANE HARD SURFACED ROAD EXTENDS NORTH.

- 10) FLIGHT HAZARDS: NONE

- 11) LANDING HAZARDS: L1: BACKSTOP.

L2: BACKSTOP.

L3: BACKSTOP.

- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.

- 13) TRAFFICABILITY: DRY WET

TROOPS: GOOD GOOD

WHEELED: GOOD GOOD

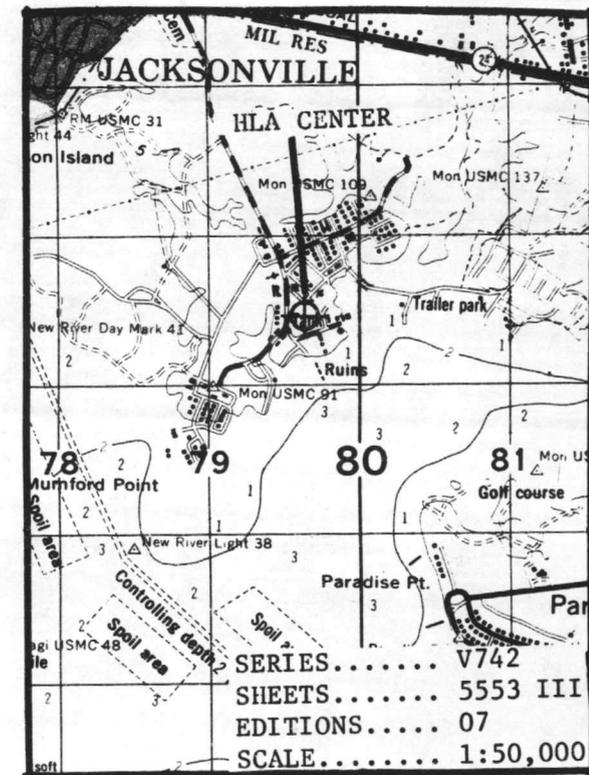
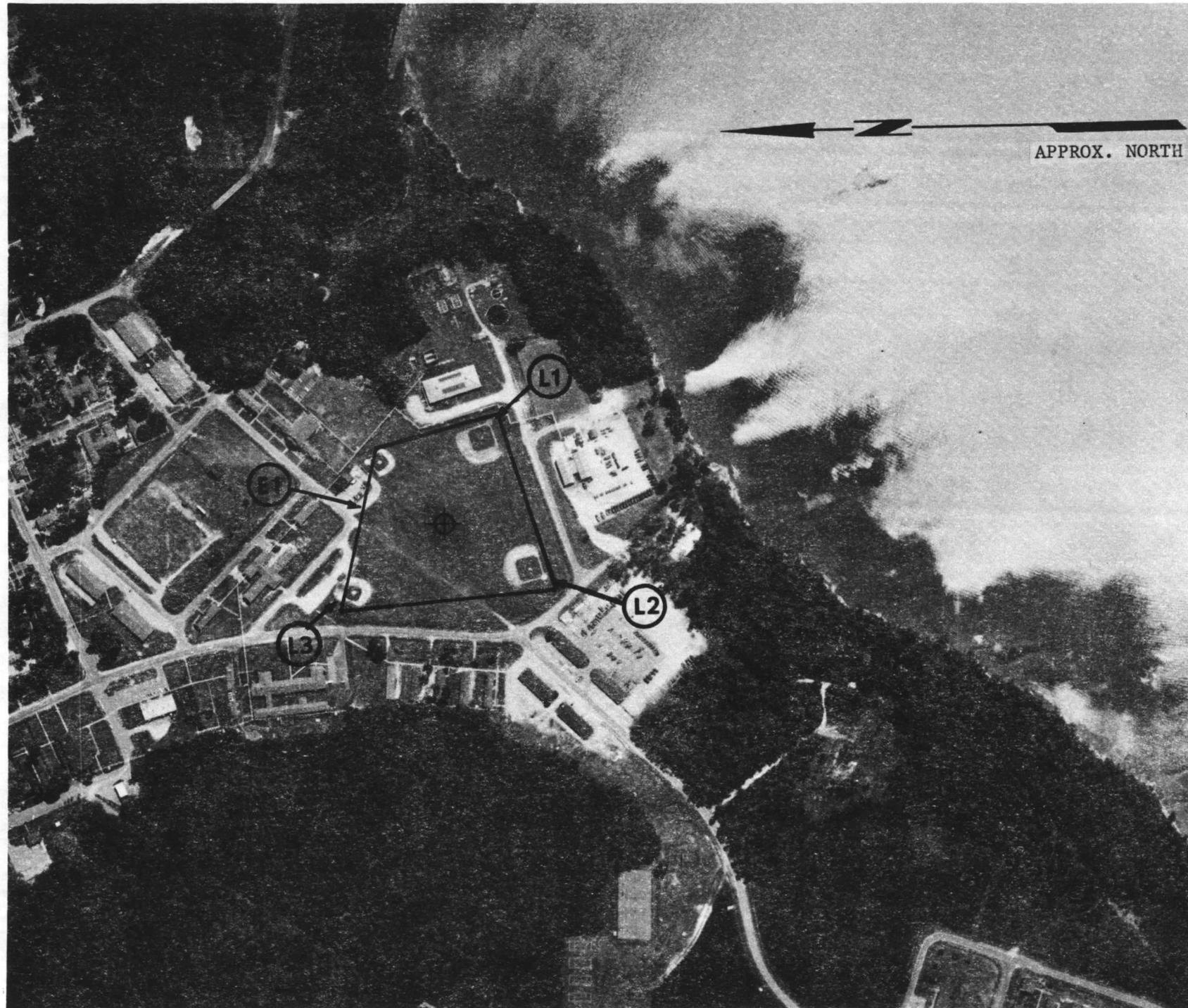
TRACKED: GOOD GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA A, SUB-

DIVISION AD. EXTERNAL LIFT NOT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0021	TDI CAT 70610
NAME MONTFORD POINT NO.1A (TEMPORARY)	LAT/LONG 344344N0772424W	

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: MONTFORD PT NO. 1
- 2) BE NO./TDI CATEGORY CODE: 0410LM0022/70610
- 3) CENTER COORDINATE/GEO: 344355N0772537W
- 4) CENTER COORDINATE/UTM: 18STP77804584
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 125 METERS BY 60 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) - REFERENCE POINT: 034.5 MAG/

3.3 KM

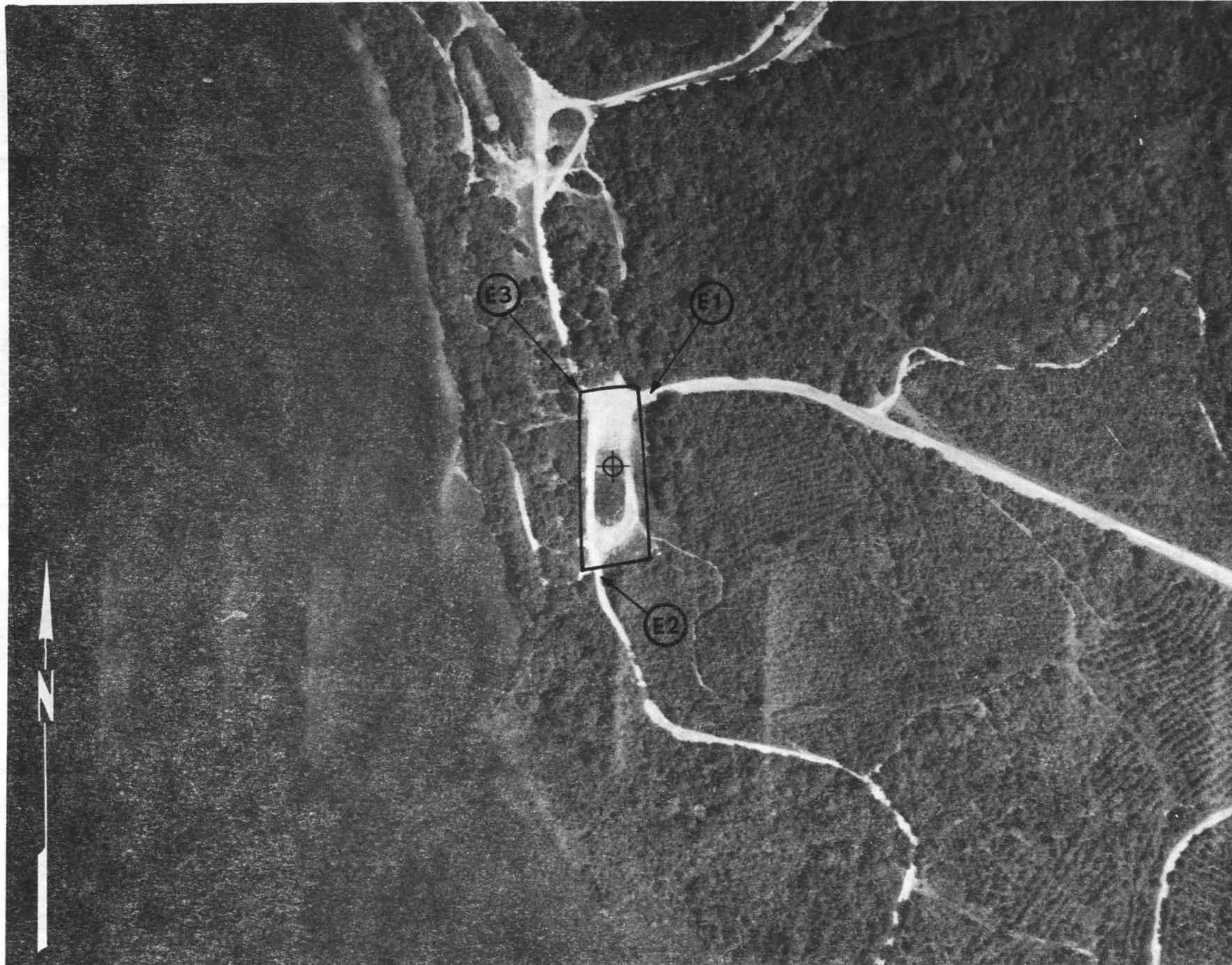
- 9) EXITS: E1: TWO LANE DIRT ROAD EXTENDS EAST.
E2: SINGLE LANE DIRT ROAD EXTENDS SOUTH.
E3: SINGLE LANE DIRT ROAD EXTENDS NORTH.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIALS: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: FAIR GOOD
TRACKED: GOOD GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA A, SUB-DIVISION AC. EXTERNAL LIFT NOT AUTHORIZED. CAUTION SHOULD BE NOTED UPON LANDING DUE TO SCHRUBS.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



COUNTRY	UNITED STATES	RECORD ID	0410LM0022	TDI CAT	70610
NAME	MONTFORD POINT NO.1	LAT/LONG	344355N0772537W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: OLD HOSPITAL POINT NO. 2
- 2) BE NO./TDI CATEGORY CODE: 0410LM0023/70610
- 3) CENTER COORDINATE/GEO: 344026N0772216W
- 4) CENTER COORDINATE/UTM: 18STP82803925
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 80 METERS BY 35 METERS (AVERAGE)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 127.5 MAG/

7.3 KM

- 9) EXITS: CROSS-COUNTRY EXISTS N AND W OF LZ.

- 10) FLIGHT HAZARDS: H1: FLAG POLE NW OF LZ.

H2: STEEPLE ON BUILDING NW OF LZ.

- 11) LANDING HAZARDS: NONE

- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.

- 13) TRAFFICABILITY: DRY WET

TROOPS: GOOD GOOD

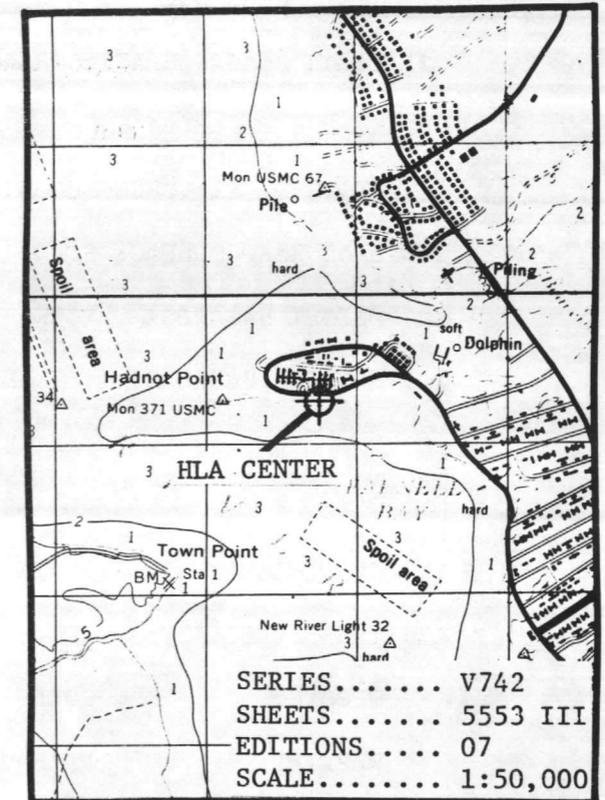
WHEELED: FAIR GOOD

TRACKED: GOOD GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED ON HOSPITAL POINT, SHORT GRASS THROUGHOUT THE LZ ALLOWS GOOD TRAFFICABILITY. EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE E WILL HAMPER MOVEMENT. THE NEW RIVER BORDERS TO THE S OF THE LZ.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



APPROX. NORTH

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COUNTRY	UNITED STATES	RECORD ID 0410LM0023	TDI CAT 70610
NAME	HOSPITAL POINT NO.2	LAT/LONG	344026N0772216W

PRODUCED BY: 2D FIIU FOR: 2D MARDIV
--

- 1) NAME: AREA 1 NO. 3
- 2) BE NO./TDI CATEGORY CODE: 0410LM0024/70610
- 3) CENTER COORDINATE/GEO: 344022N0772143W
- 4) CENTER COORDINATE/UTM: 18STP83593910
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 220 METERS BY 75 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 126.5 MAG/

8.1 KM

- 9) EXITS: E1: CROSS COUNTRY EXITS LOCATED NW TO SE OF LZ AND PARALELS A

TWO LANE HARD-SURFACE ROAD.

- 10) FLIGHT HAZARDS: NONE

- 11) LANDING HAZARDS: L1: BACKSTOP.

L2: BACKSTOP.

L3: BACKSTOP.

- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.

- 13) TRAFFICABILITY: DRY WET

TROOPS: GOOD GOOD

WHEELED: FAIR GOOD

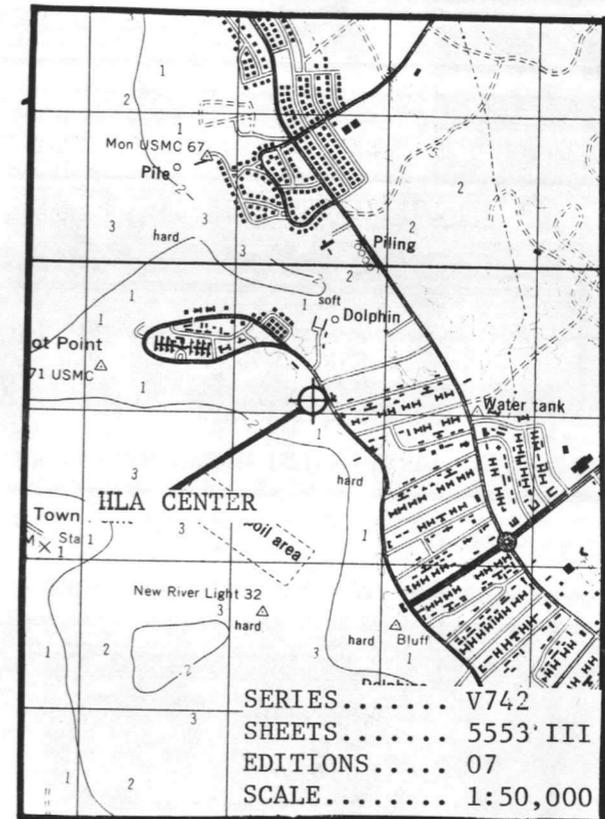
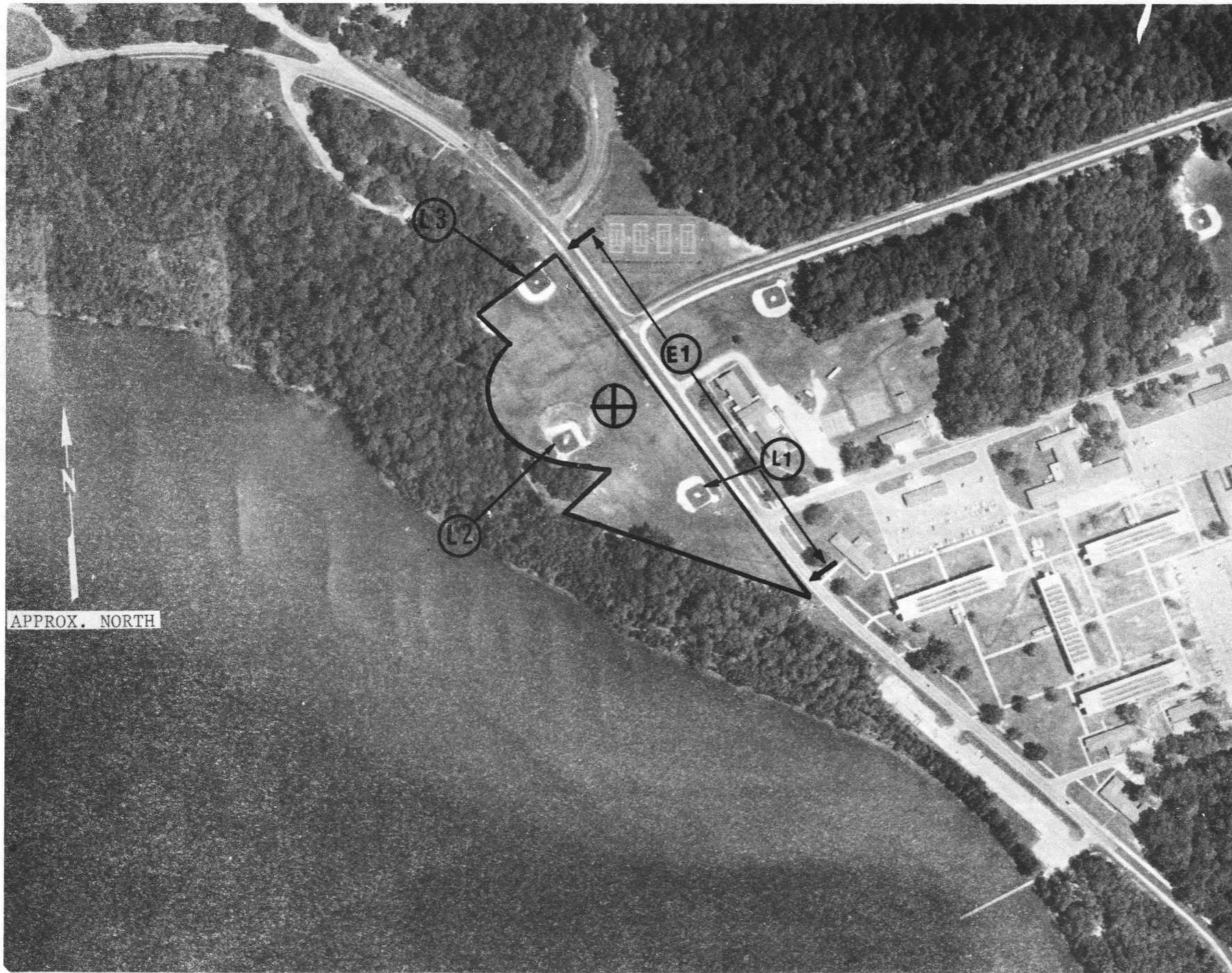
TRACKED: GOOD GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN THE MAINSIDE AREA.

EXTERNAL LIFT NOT AUTHORIZED. TREES BORDER THE LZ FROM NNW TO SE.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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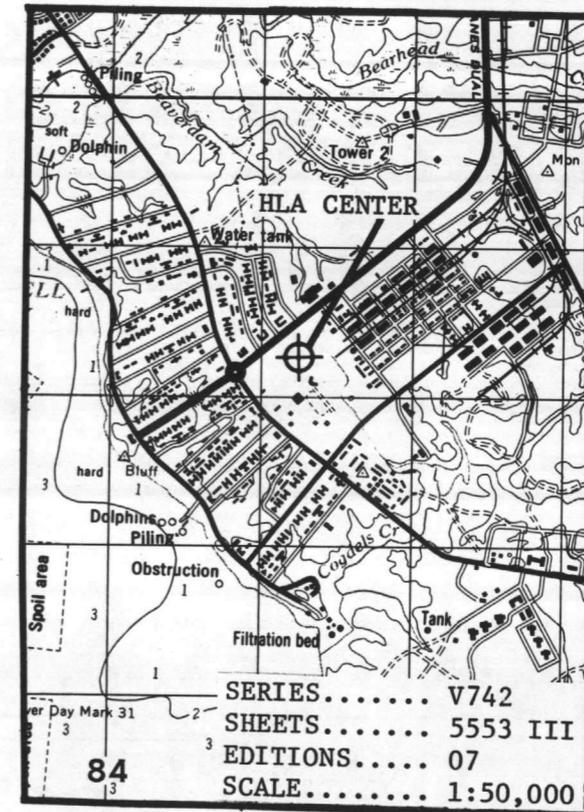
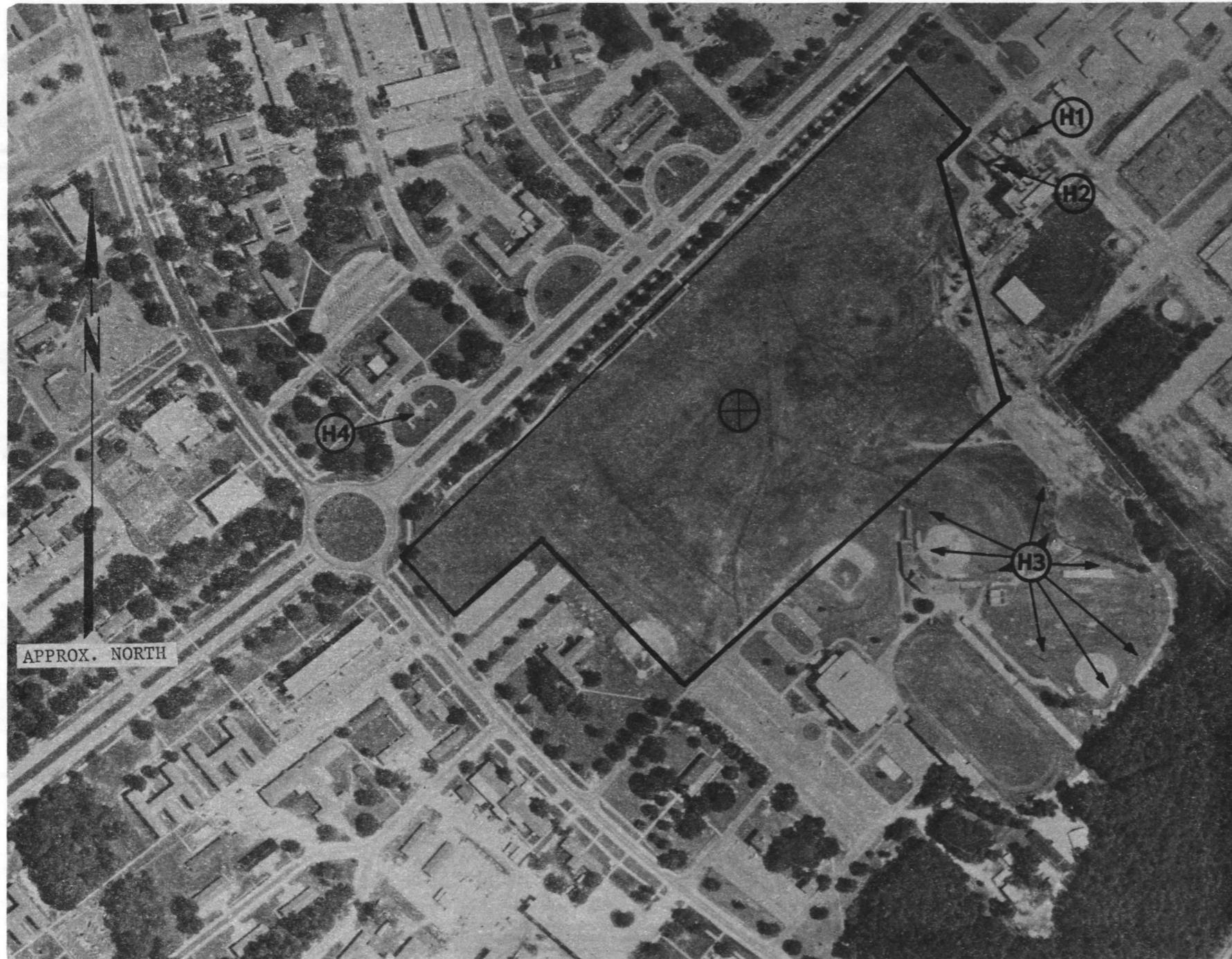
COUNTRY UNITED STATES	RECORD ID 0410LM0024	TDI CAT 70610
NAME AREA 1 NO. 3	LAT/LONG 344022N0772143W	

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: WPT HILL FIELD NO.4
- 2) BE NO./TDI CATEGORY CODE: 0410LM0025/70610
- 3) CENTER COORDINATE/GEO: 343955N0772042W
- 4) CENTER COORDINATE/UTM: 18STP85153823
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 600 METERS BY 300 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 126.5 MAG/
9.9 KM
- 9) EXITS: CROSS-COUNTRY EXITS ALONG COMPLETE PERIMETER OF LZ.
- 10) FLIGHT HAZARDS: H1: SMOKE STACK.
H2: SMOKE STACK.
H3: LIGHT POLES.
H4: FLAG POLE.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: FAIR GOOD
TRACKED: GOOD GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN MAINSIDE AREA. EXTERNAL
LIFT NOT AUTHORIZED. RESTRICTED FROM TRAINING, V.I.P. USE ONLY.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



COUNTRY	UNITED STATES	RECORD ID	0410LM0025	TDI CAT	70610
NAME	WPT HILL FIELD NO. 4	LAT/LONG	343955N0772042W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: 2D MAR DIV CP NO.5
- 2) BE NO./TDI CATEGORY CODE: 0410LM0026/70610
- 3) CENTER COORDINATE/GEO: 343935N0772119W
- 4) CENTER COORDINATE/UTM: 18STP84123761
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 50 METERS BY 40 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 132.5 MAG/

9.25 KM

- 9) EXITS: E1: HARD SURFACE ROAD EXTENDS NW OF LZ INTERSECTING WITH HOLCOMB

BLVD.

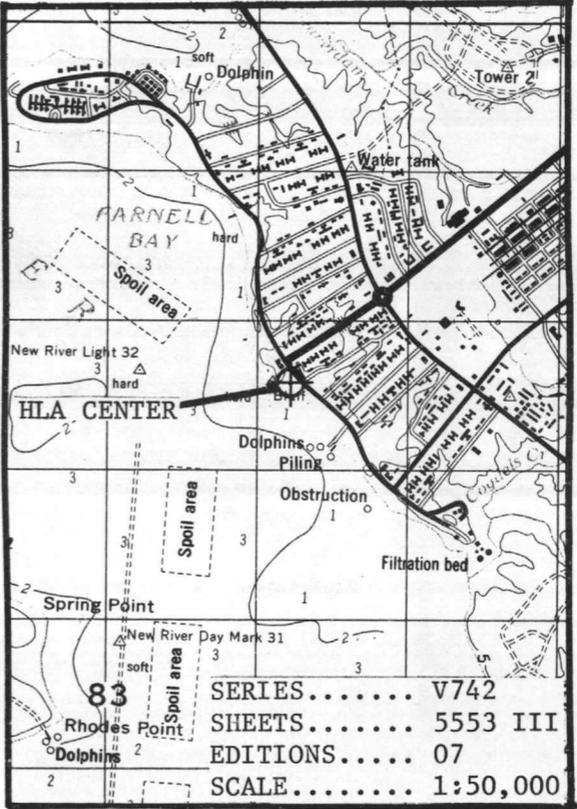
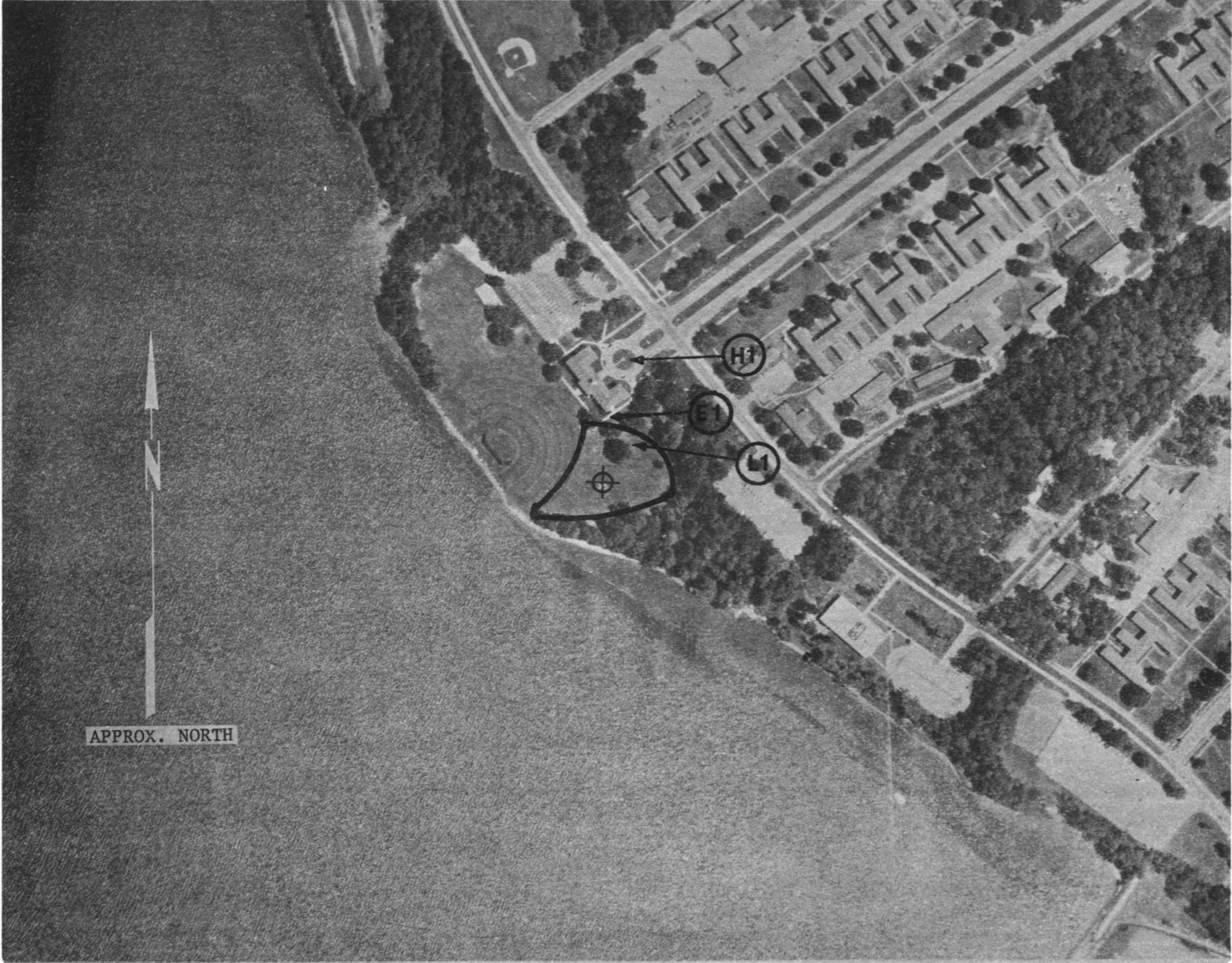
- 10) FLIGHT HAZARDS: H1: FLAG POLE.
- 11) LANDING HAZARDS: L1: LARGE TREES.
- 12) SURFACE MATERIAL: FINE LOAMY SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	FAIR
WHEELED:	GOOD	FAIR
TRACKED:	GOOD	FAIR

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN MAINSIDE AREA NEXT TO DIVISION CP. LZ MARKED WITH WHITE X. EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE E AND S OF LZ.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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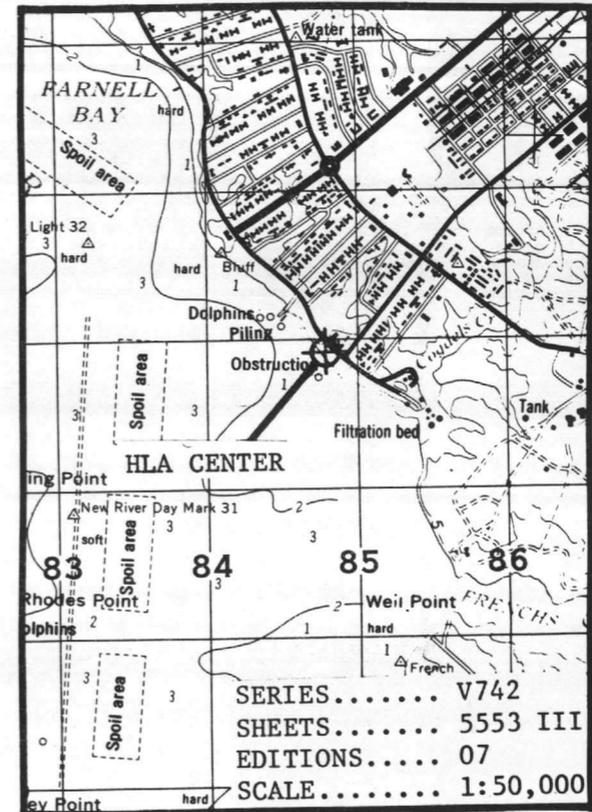
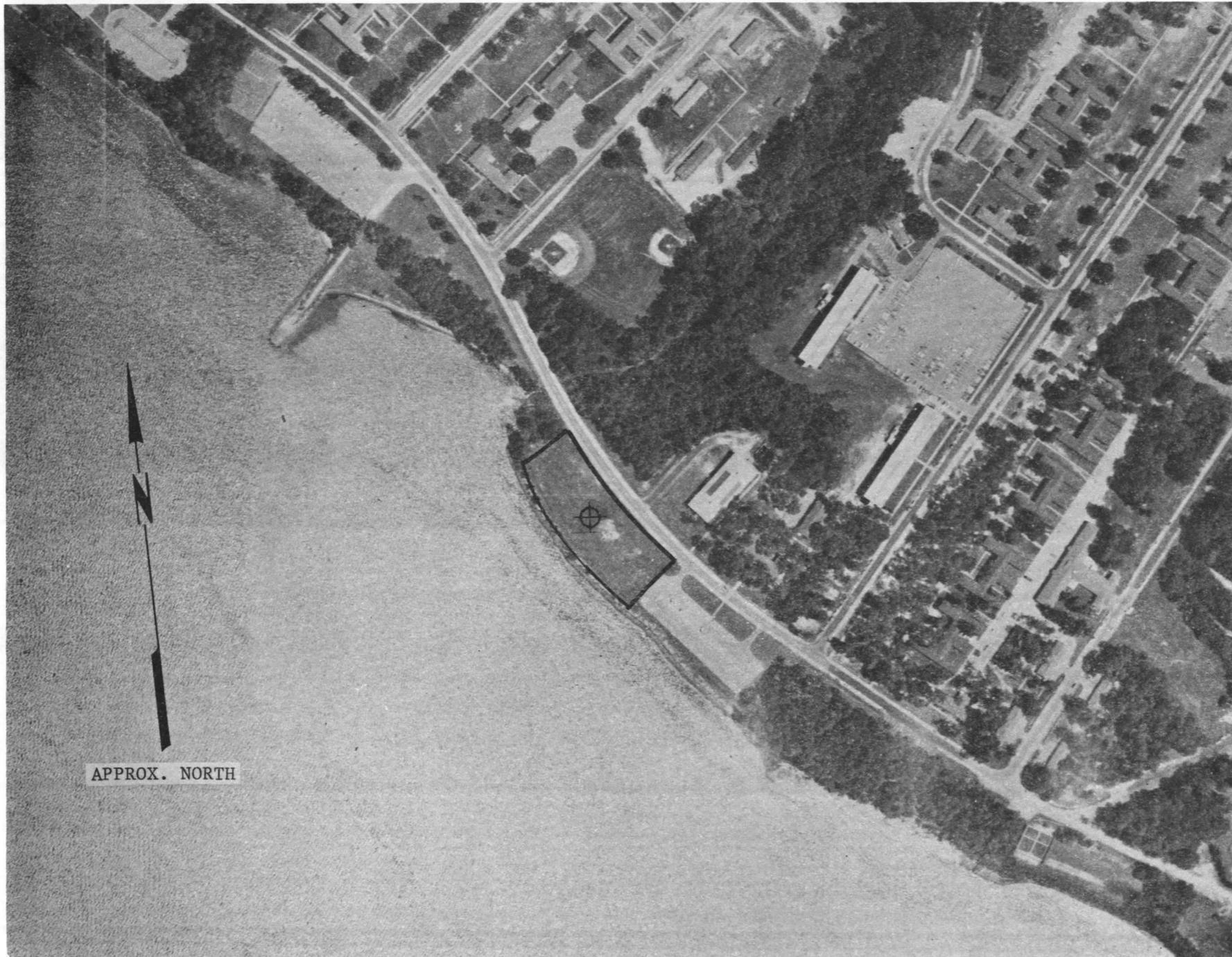
COUNTRY	UNITED STATES	RECORD ID	0410LM0026	TDI CAT	70610
NAME	2D MARDIV CP NO. 5		LAT/LONG 343935N0772119W		

PRODUCED BY: 2D FIU
 FOR: 2D MARDIV

- 1) NAME: 10TH MAR AREA NO:6
- 2) BE NO./TDI CATEGORY CODE: 0410LM0027/70610
- 3) CENTER COORDINATE/GEO: 343912N0772056W
- 4) CENTER COORDINATE/UTM: 18STP84733699
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 100 METERS BY 30 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 133.5 MAG/
10.2 KM
- 9) EXITS: CROSS-COUNTRY EXITS FROM N TO ESE ON ROAD BORDERING LZ.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE LOAMY SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY: DRY WET
- | | | |
|----------|------|------|
| TROOPS: | GOOD | FAIR |
| WHEELED: | GOOD | FAIR |
| TRACKED: | GOOD | FAIR |
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED E OF THE NEW RIVER IN THE
FARNELL BAY SECTOR. LZ MARKED WITH WHITE X. EXTERNAL LIFT NOT AUTHORIZED.
THE NEW RIVER BORDERS LZ FROM FROM NW TO S. TREES TO THE NNW OF LZ. RESTRICTED
FROM TRAINING, V.I.P. USE ONLY.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



COUNTRY UNITED STATES	RECORD ID 0410LM0027	TDI CAT 70610
NAME 10th MAR AREA NO. 6	LAT/LONG 343912N0772056W	

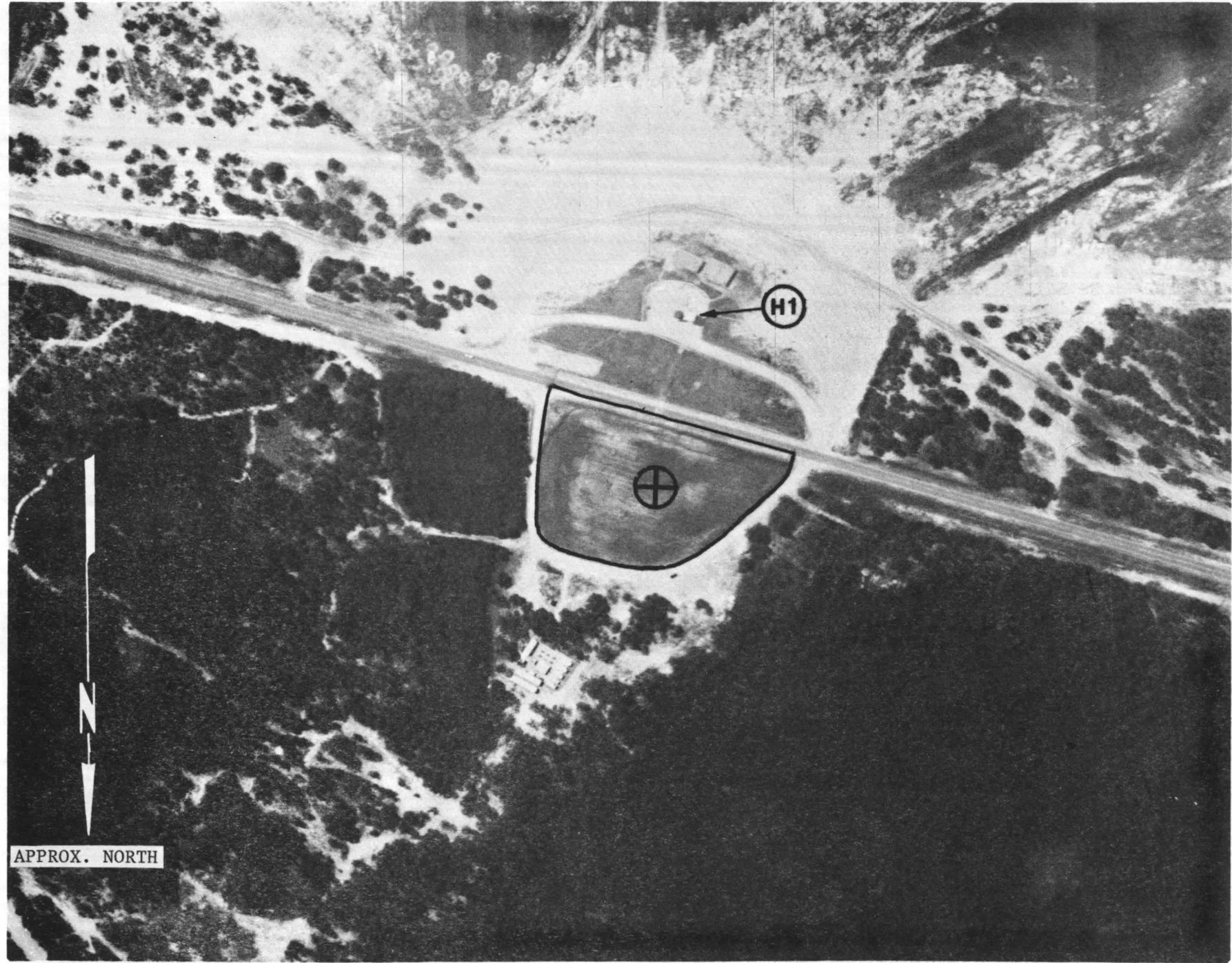
PRODUCED BY: 2D FIIU
 FOR: 2D MARDIV

- 1) NAME: OP-2 NO.7
- 2) BE NO./TDI CATEGORY CODE: 0410LM0028/70610
- 3) CENTER COORDINATE/GEO: 343934N0771629W
- 4) CENTER COORDINATE/UTM: 18STP91573745
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 80 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 116.5 MAG/
16.1 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED ALONG ENTIRE PERIMETER OF LZ.
- 10) FLIGHT HAZARDS: H1: OBSERVATION TOWER.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY:

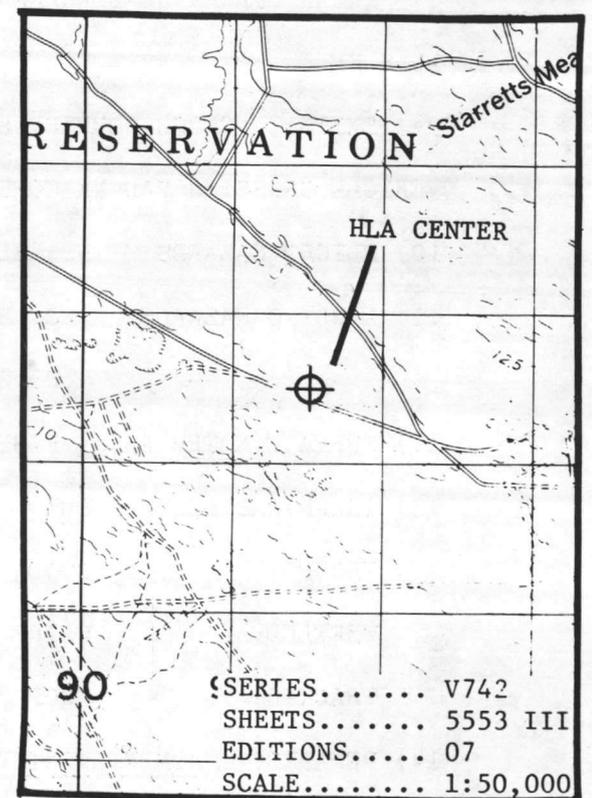
	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	GOOD	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMISITRATIVE LANDING ZONE. LOCATED IN TRAINING AREA F, SUB-DIVISION FD. EXTERNAL LIFT NOT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



APPROX. NORTH



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COUNTRY	UNITED STATES	RECORD ID	0410LM0028	TDI CAT	70610
NAME	OP-2 NO. 7	LAT/LONG	343934N0771629W		

PRODUCED BY: 2D FIU FOR: 2D MARDIV

- 1) NAME: COURT HOUSE BAY NO.8
- 2) BE NO./TDI CATEGORY CODE: 0410LM0029/70610
- 3) CENTER COORDINATE/GEO: 343509N0772139W
- 4) CENTER COORDINATE/UTM: 18STP83482942
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 260 METERS BY 120 METERS (AVERAGE)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 160.5 MAG/

15.2 KM

- 9) EXITS: CROSS-COUNTRY EXITS LOCATED ALONG ENTIRE PERIMETER OF LZ. TRACKED

VEHICLE CROSSING PAD NE CORNER OF LZ.

- 10) FLIGHT HAZARDS: H1: FLAG POLE.

- 11) LANDING HAZARDS: L1: BACKSTOP.

L2: BACKSTOP.

- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.

- 13) TRAFFICABILITY: DRY WET

TROOPS: GOOD GOOD

WHEELED: FAIR GOOD

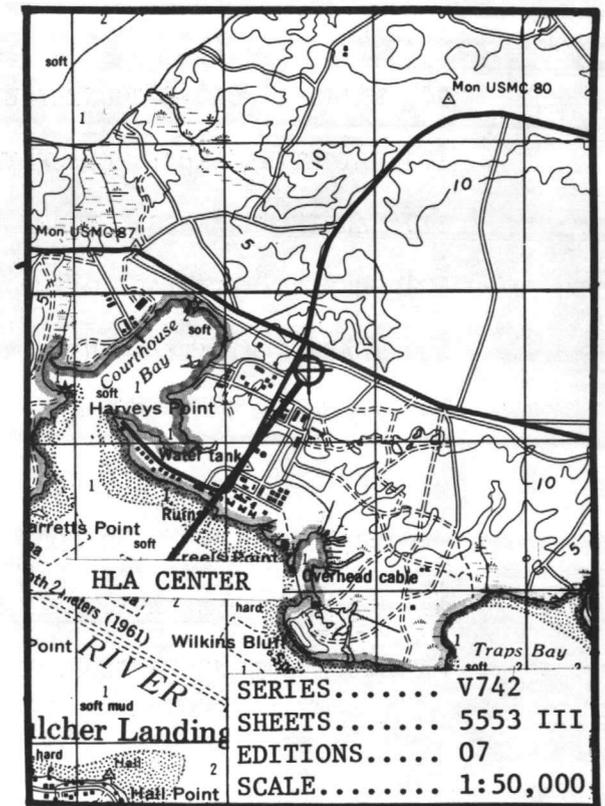
TRACKED: GOOD GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED SE OF RT. 172 AND MARINES

ROAD INTERSECTION. EXTERNAL LIFT NOT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



	COUNTRY UNITED STATES	RECORD ID 0410LM0029	TDI CAT 70610
	NAME COURTHOUSE BAY NO.8	LAT/LONG 343509N0772139W	

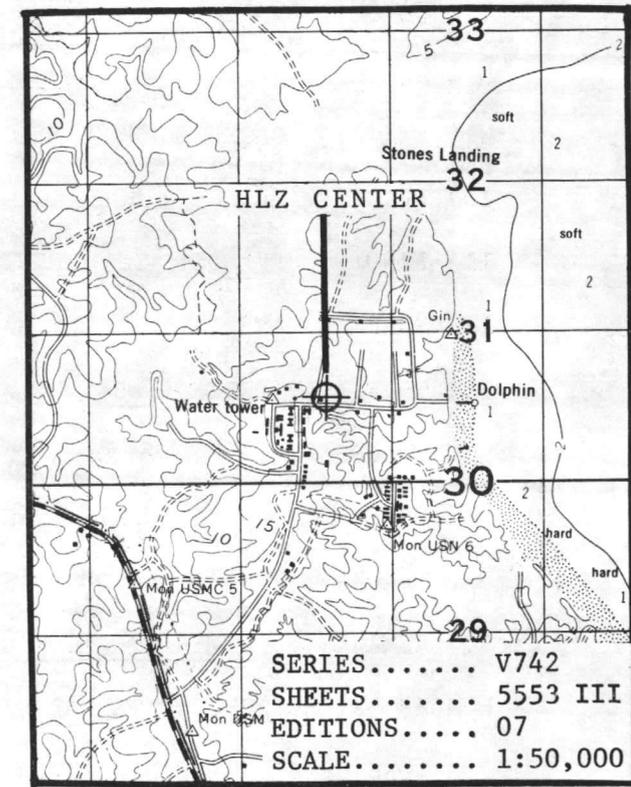
PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: RIFLE RANGE NO.9
- 2) BE NO./TDI CATEGORY CODE: 0410LMO030/70610
- 3) CENTER COORDINATE/GEO: 343540N0772652W
- 4) CENTER COORDINATE/UTM: 18STP75593058
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 100 METERS BY 125 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
8. TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 191.5 MAG/
12.2 KM
- 9) EXITS: CROSS-COUNTRY EXITS AROUND ENTIRE LANDING ZONE PERIMETER.
- 10) FLIGHT HAZARDS: H1: WATERTOWER.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: MIXED WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	GOOD	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA L.
EXTERNAL LIFT NOT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 840724



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COUNTRY UNITED STATES	RECORD ID 0410LM0030	TDI CAT 70610
NAME RIFLE RANGE NO.9	LAT/LONG 343540N0772652W	

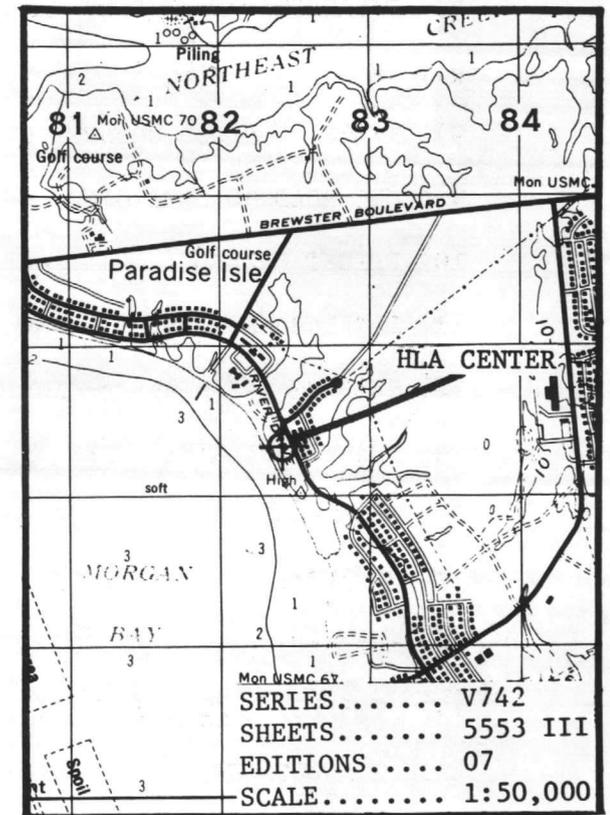
PRODUCED BY:2D FIU
FOR:2D MARDIV

- 1) NAME: TENNIS COURTS NO.10
- 2) BE NO./TDI CATEGORY CODE: 0410LM0031/70610
- 3) CENTER COORDINATE/GEO: 344206N0772234W
- 4) CENTER COORDINATE/UTM: 18STP82404232
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 500 METERS BY 125 METERS (WIDEST POINT)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 105.0 MAG/
6.1 KM
- 9) EXITS: CROSS-COUNTRY EXITS ALONG E PERIMETER ON HARD-SURFACE ROAD.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: L1: TENNIS COURTS AND PARKING LOT.
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	FAIR	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED ALONG THE NEW RIVER IN MORGAN BAY SECTOR. EXTERNAL LIFT NOT AUTHORIZED. TREES N, NNW AND SE PORTIONS OF LZ. THE NEW RIVER BORDERS ALONG THE W. RESTRICTED FROM TRAINING, V.I.P. USE ONLY.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0031	TDI CAT 70610
NAME TENNIS COURTS NO. 10	LAT/LONG 344206NC772234W	

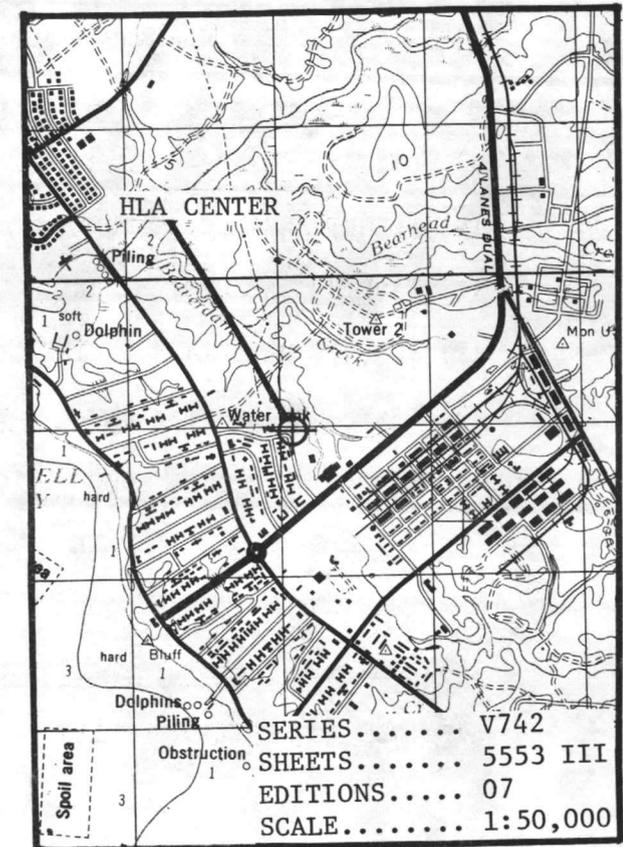
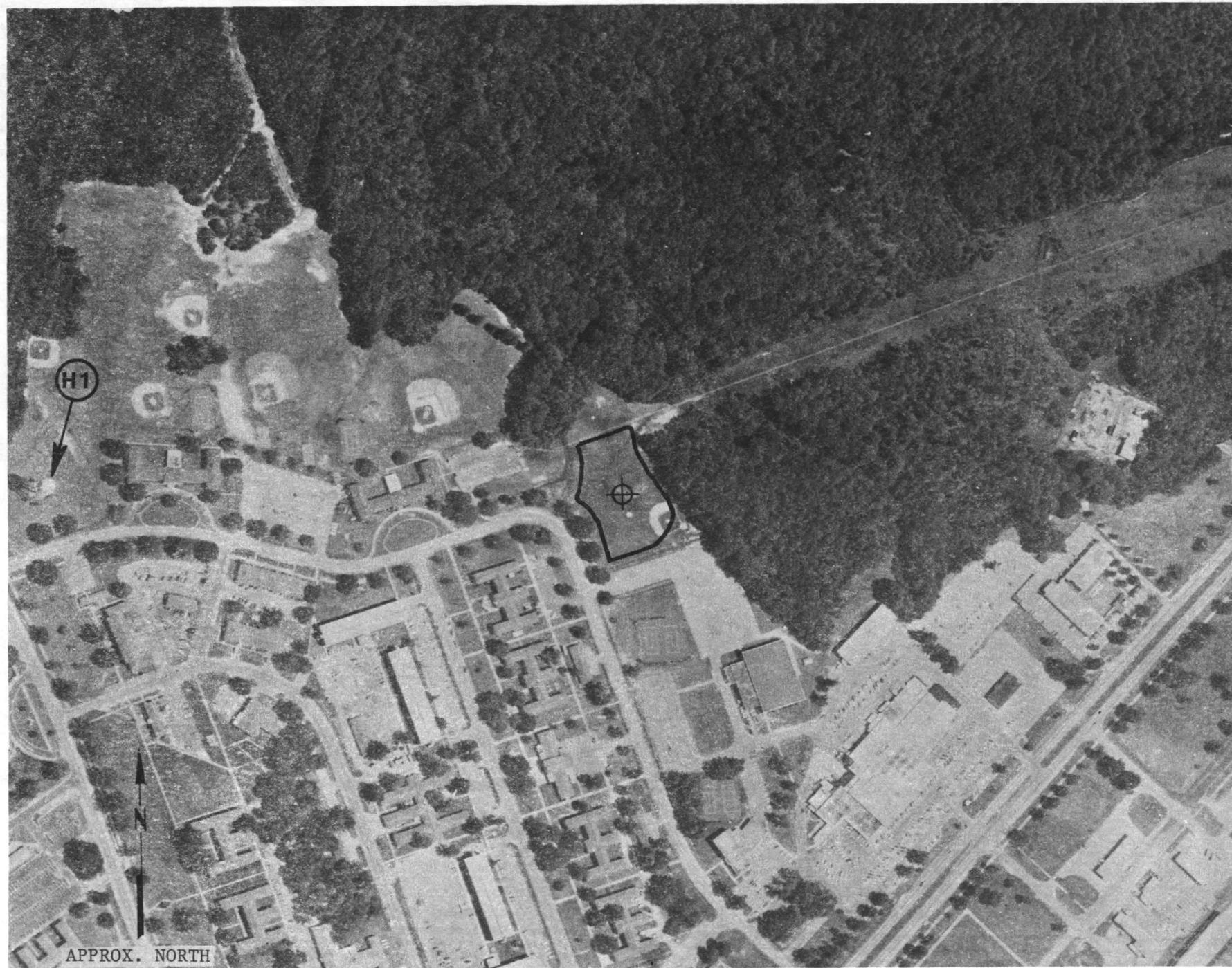
PRODUCED BY: 2D FIIU
 FOR: 2D MARDIV

- 1) NAME: FORCE TROOPS CP NO.11
- 2) BE NO./TDI CATEGORY CODE: 0410LMO032/70610
- 3) CENTER COORDINATE/GEO: 344017N0772044W
- 4) CENTER COORDINATE/UTM: 18STP85113894
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 105 METERS BY 75 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 122.5 MAG/
9.7 KM
- 9) EXITS: CROSS-COUNTRY EXITS ALONG BORDERING PARKING LOT AND TO THE S AND
W ALONG ROAD BORDERING LZ.
- 10) FLIGHT HAZARDS: H1: WATERTOWER W OF LZ.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	FAIR	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN THE MAINSIDE AREA.
BACKSTOP LOCATED JUST OUTSIDE THE LZ PERIMETER ON THE SE CORNER IS A
POTENTIAL LANDING HAZARD. EXTERNAL LIFT NOT AUTHORIZED. MOVEMENT WILL BE
HAMPERED TO THE N AND E BY DENSE TREES.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0032	TDI CAT 70610
NAME FORCE TROOPS CP NO. 11	LAT/LONG 344017N0772044W	

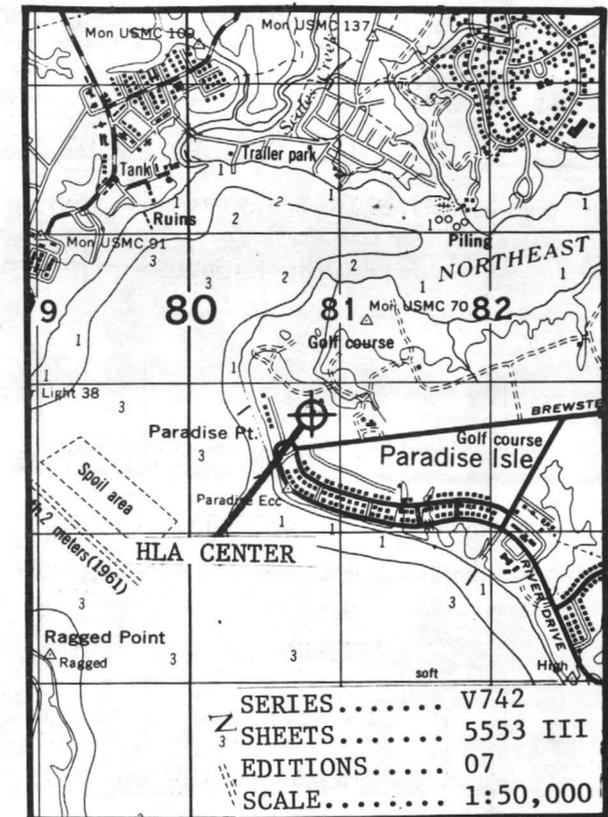
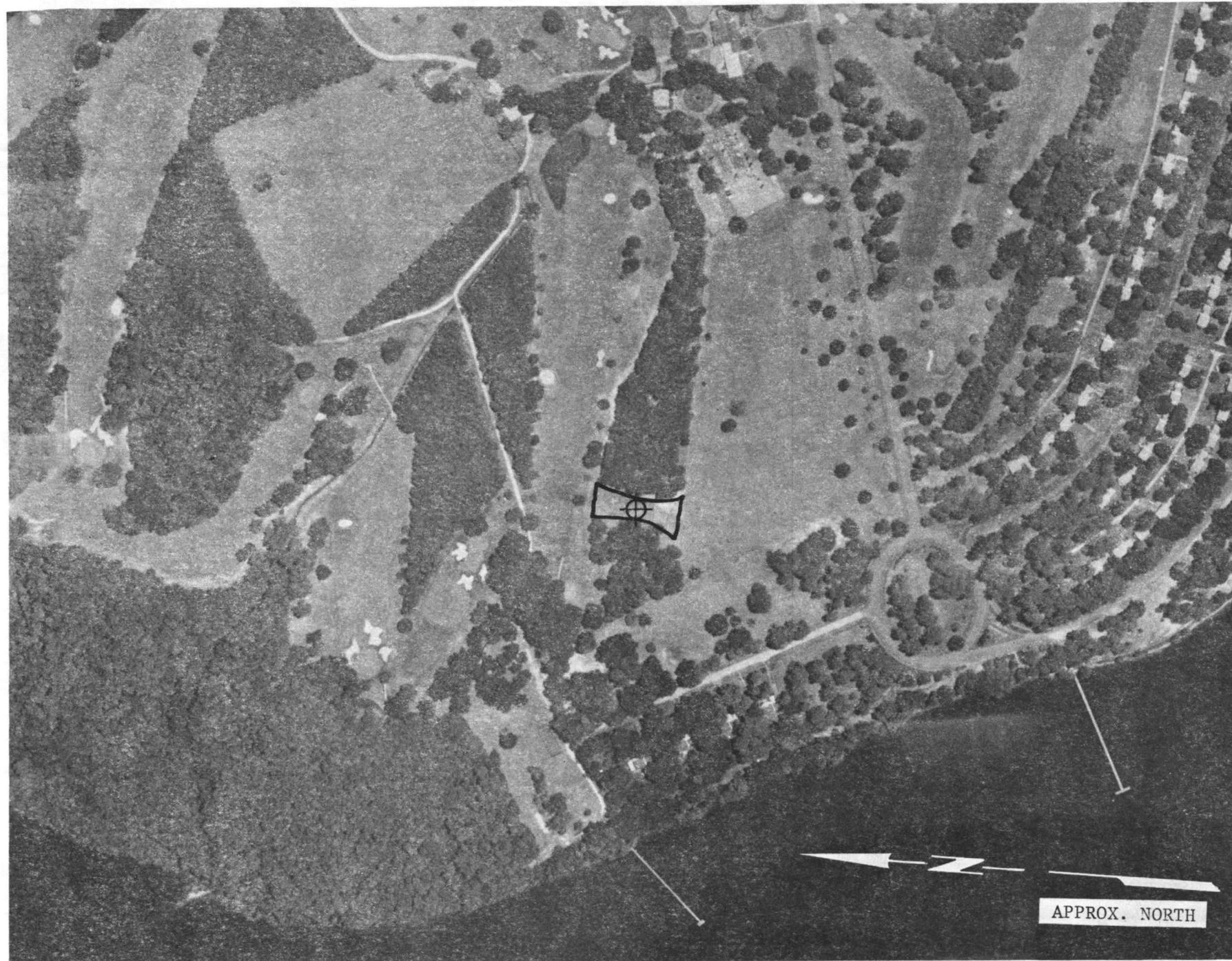
PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: GOLF COURSE NO.12
- 2) BE NO./TDI CATEGORY CODE: 0410LM0033/70610
- 3) CENTER COORDINATE/GEO: 344241N0772338W
- 4) CENTER COORDINATE/UTM: 18STP80804380
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 25 METERS BY 70 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 085.5 MAG/
4.4 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED TO THE N AND S OF LZ.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	FAIR	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED ON GOLF COURSE. EXTERNAL
LIFT NOT AUTHORIZED. TREES TO THE E AND W OF LZ.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0033	TDI CAT 70610
NAME GOLF COURSE NO. 12	LAT/LONG 344241N0772338W	

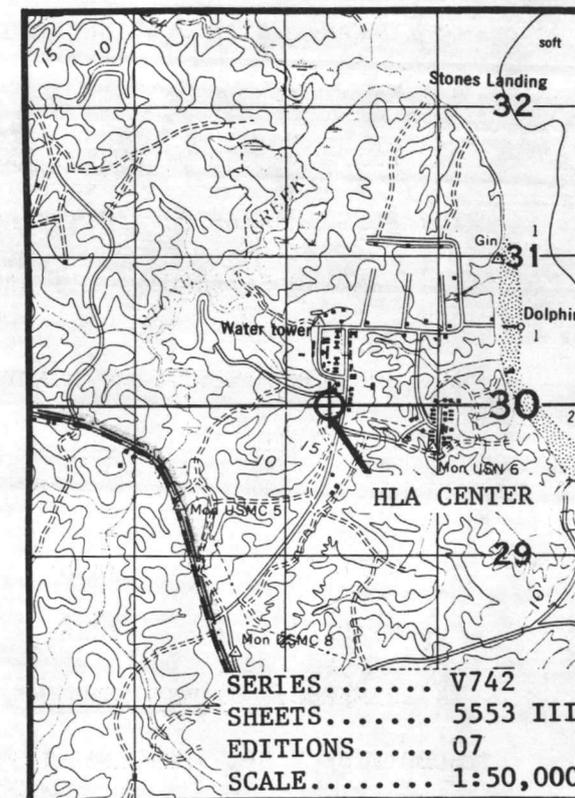
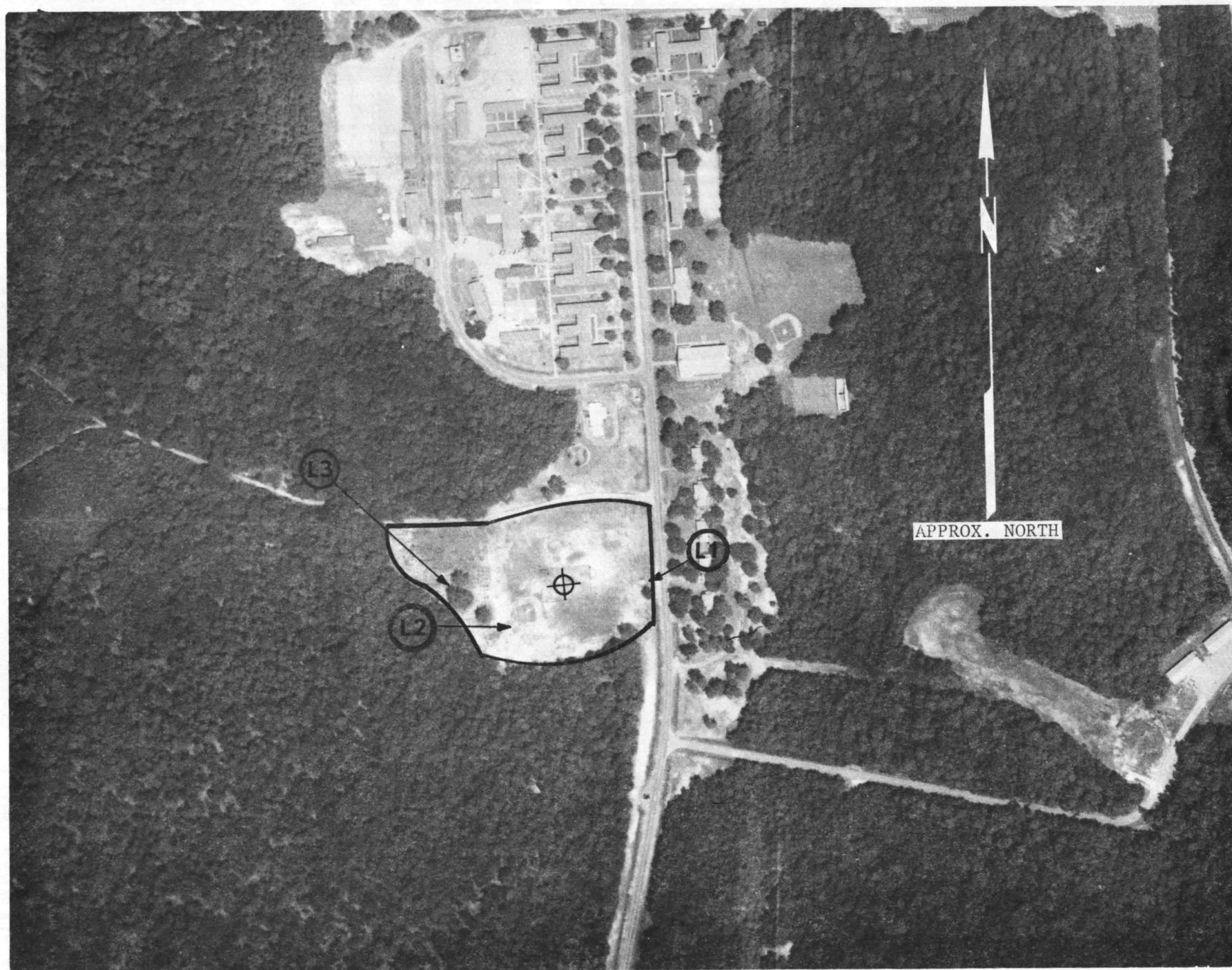
PRODUCED BY: 2D FLIU
 FOR: 2D MARDIV

- 1) NAME: RIFLE RANGE QUARTERS NO.14
- 2) BE NO./TDI CATEGORY CODE: 0410LMO035/70610
- 3) CENTER COORDINATE/GEO: 343519N0772701
- 4) CENTER COORDINATE/UTM: 18STP75302998
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 105 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 193.0 MAG/
12.9 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED TO THE N AND E OF LZ.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: L1: SMALL BUILDING.
L2: BACKSTOP.
L3: TREES.
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS AND SCATTERED SCRUBS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	POOR	FAIR
TRACKED:	FAIR	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA L,
SUBDIVISION LB. EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE S AND W OF LZ.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0035	TDICAT 70610
NAME RIFLE RANGE QUARTERS NO. 14	LAT/LONG 343519N0772701W	

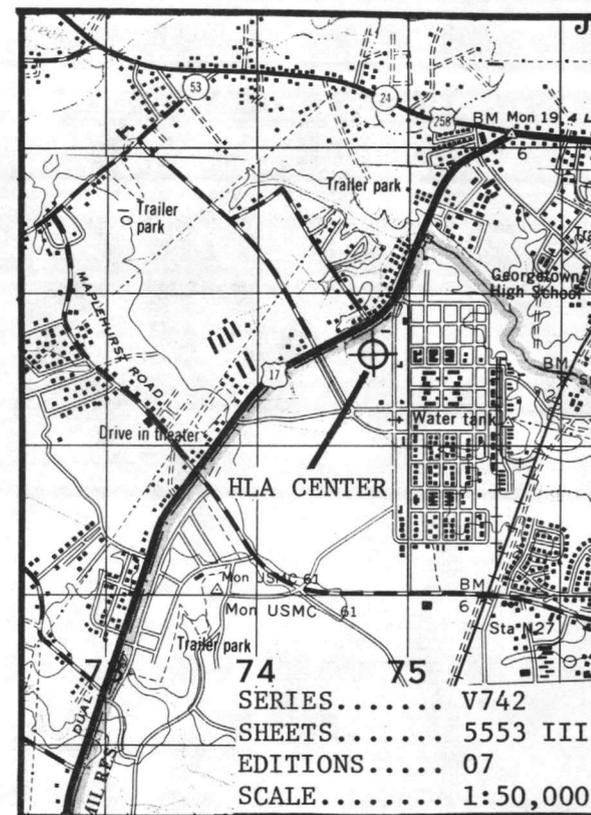
PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: CP GEIGER NO. 15
- 2) BE NO./TDI CATEGORY CODE: 0410LMO036/70610
- 3) CENTER COORDINATE/GEO: 34417N0772734W
- 4) CENTER COORDINATE/UTM: 18STP74864659
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 420 METERS BY 400 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 345.0 MAG/
4.1 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED ALONG ENTIRE PERIMETER OF LZ.
- 10) FLIGHT HAZARDS: H1: FLAG POLE.
- 11) LANDING HAZARDS: L1: BACKSTOPS.
L2: BLEACHERS.
- 12) SURFACE MATERIAL: LOAMY FINE SAND WITH DENSE GRASS AND SCATTERED TREES.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	FAIR
WHEELED:	GOOD	FAIR
TRACKED:	GOOD	FAIR
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA B,
SUBDIVISION BB. EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE S AND W OF LZ.
DRAINAGE DITCHES DISECT SOUTHERN SECTIONS OF LZ.

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COUNTRY	UNITED STATES	RECORD ID	0410LM0036	TDI CAT	70610
NAME	CP GEIGER NO. 15	LAT/LONG	344417N0772734W		

PRODUCED BY: 2D FIU
 FOR: 2D MARDIV

- 1) NAME: CAMP GIEGER NO. 15-A
- 2) BE NO./TDI CATEGORY CODE: 0410LM0037/70610
- 3) CENTER COORDINATE/GEO: 344332N0772727W
- 4) CENTER COORDINATE/UTM: 18STP74974510
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 175 METERS BY 80 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 3 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 335.5 MAG/

2.7 KM

- 9) EXITS: CROSS-COUNTRY EXITS LOCATED TO THE NE, E AND S OF LZ WHICH INTERSECT WITH TWO LANE HARD-SURFACE ROADS.

10) FLIGHT HAZARDS: NONE

11) LANDING HAZARDS: NONE

12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.

13) TRAFFICABILITY: DRY WET

TROOPS: GOOD GOOD

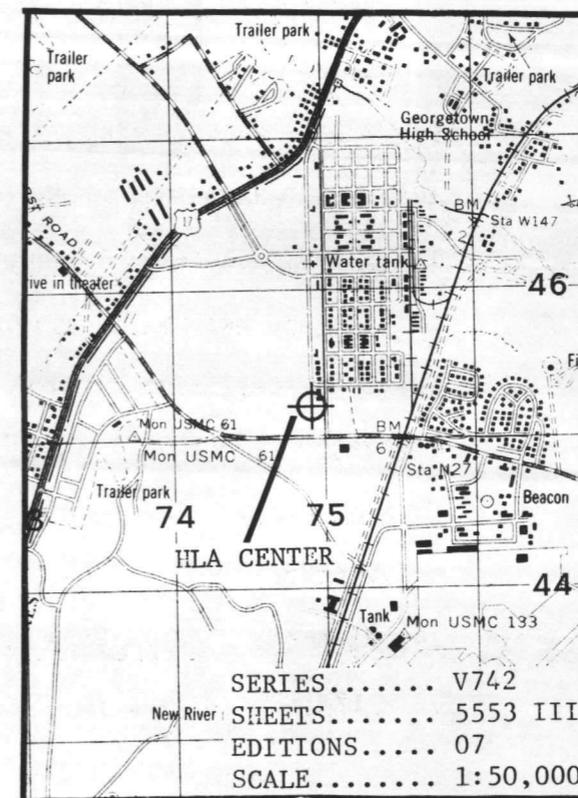
WHEELED: POOR FAIR

TRACKED: FAIR GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA B, SUBDIVISION BB. EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE W WILL HAMPER CROSS-COUNTRY MOVEMENT.

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COUNTRY UNITED STATES	RECORD ID 0410LH0037	TDI CAT 70610
NAME CAMP GIEGER NO. 15-A	LAT/LONG 344332N0772727W	

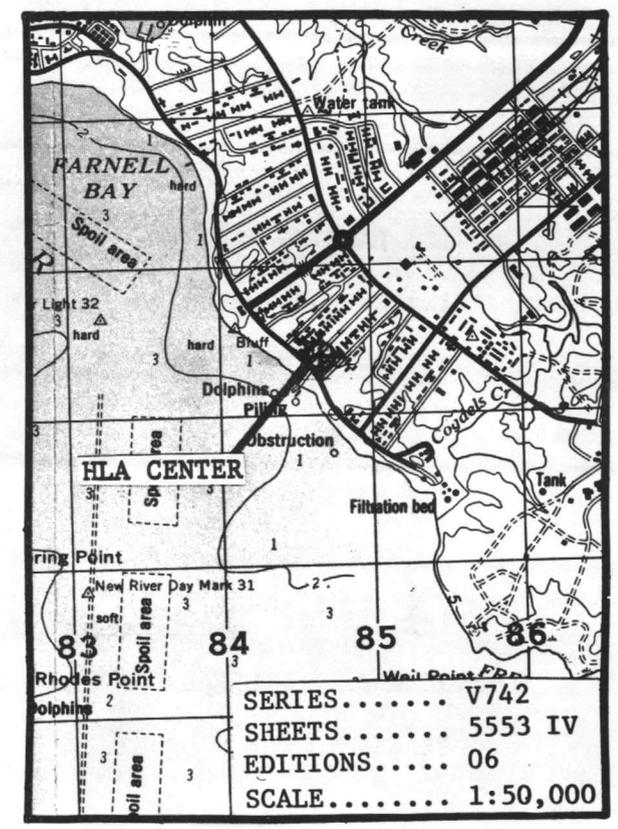
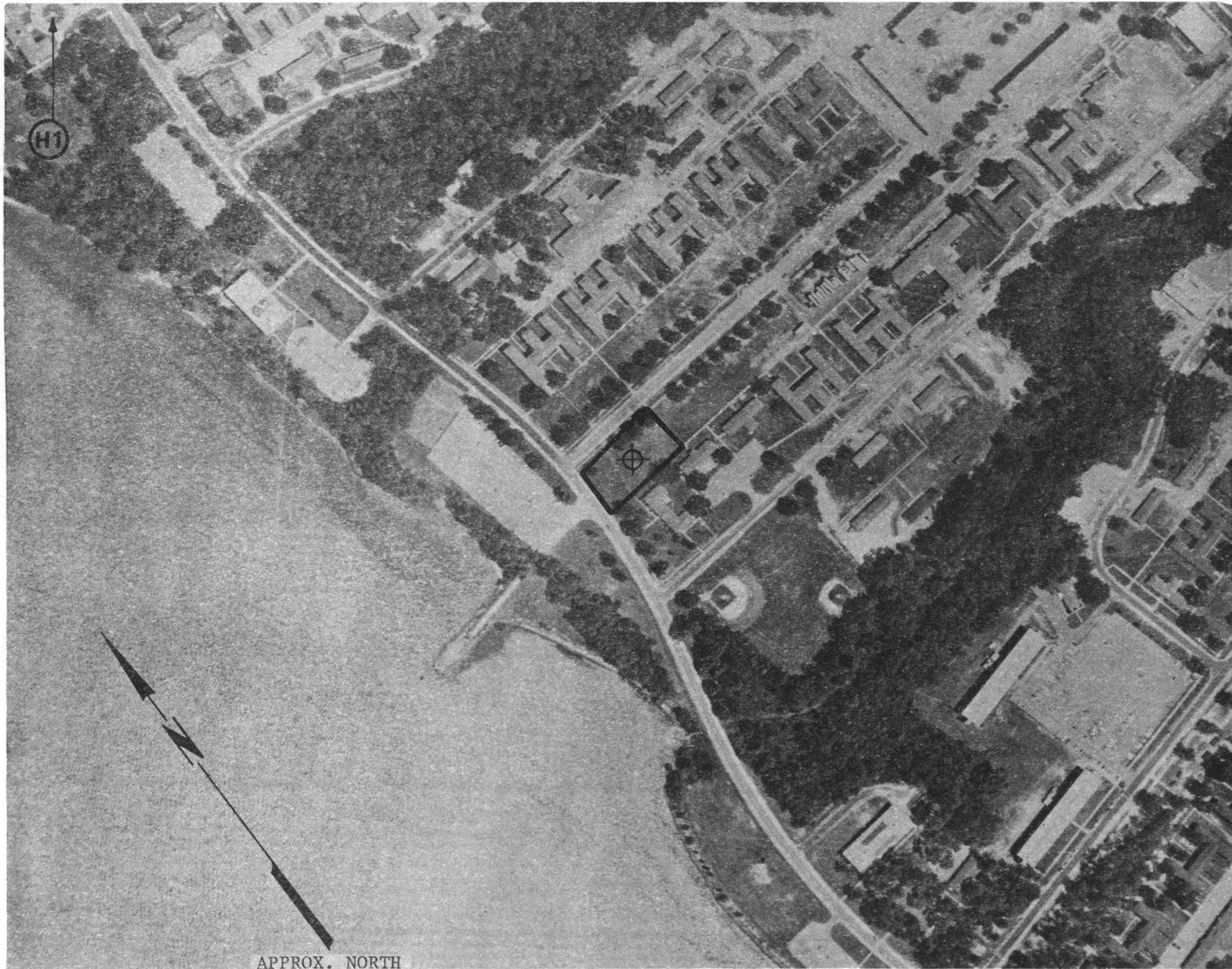
PRODUCED BY: 2D FLIU
 FOR: 2D MARDIV

- 1) NAME: 6TH MAR AREA NO.16
- 2) BE NO./TDI CATEGORY CODE: 0410LMO038/70610
- 3) CENTER COORDINATE/GEO: 343925N0772102W
- 4) CENTER COORDINATE/UTM: 18STP84643731
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 50 METERS BY 20 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 132.5 MAG/
9.9 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED TO THE E AND W OF LZ.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	FAIR	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN MAINSIDE AREA. LZ
IS MARKED BY WHITE X IN CENTER. EXTERNAL LIFT NOT AUTHORIZED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY UNITED STATES	RECORD ID 0410LM0038	TDI CAT 70610
NAME 6th MAR AREA NO. 16	LAT/LONG 343925N0772102W	

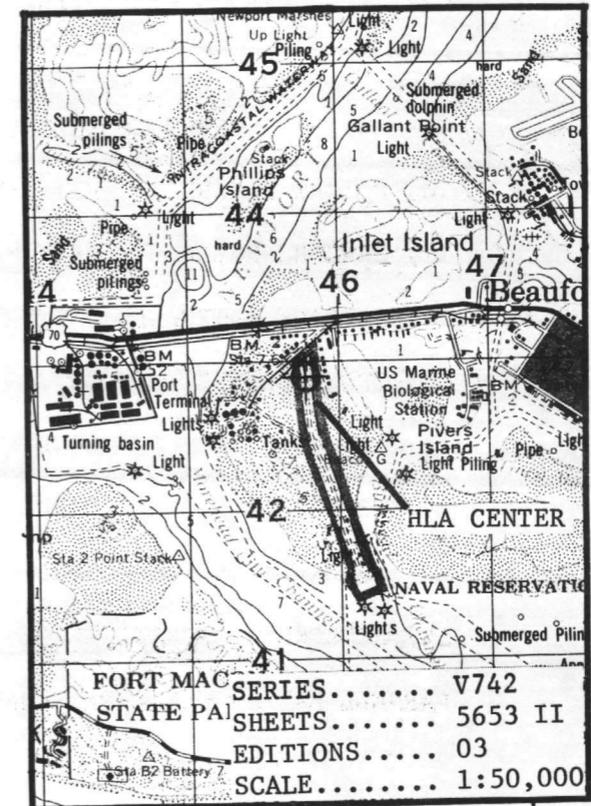
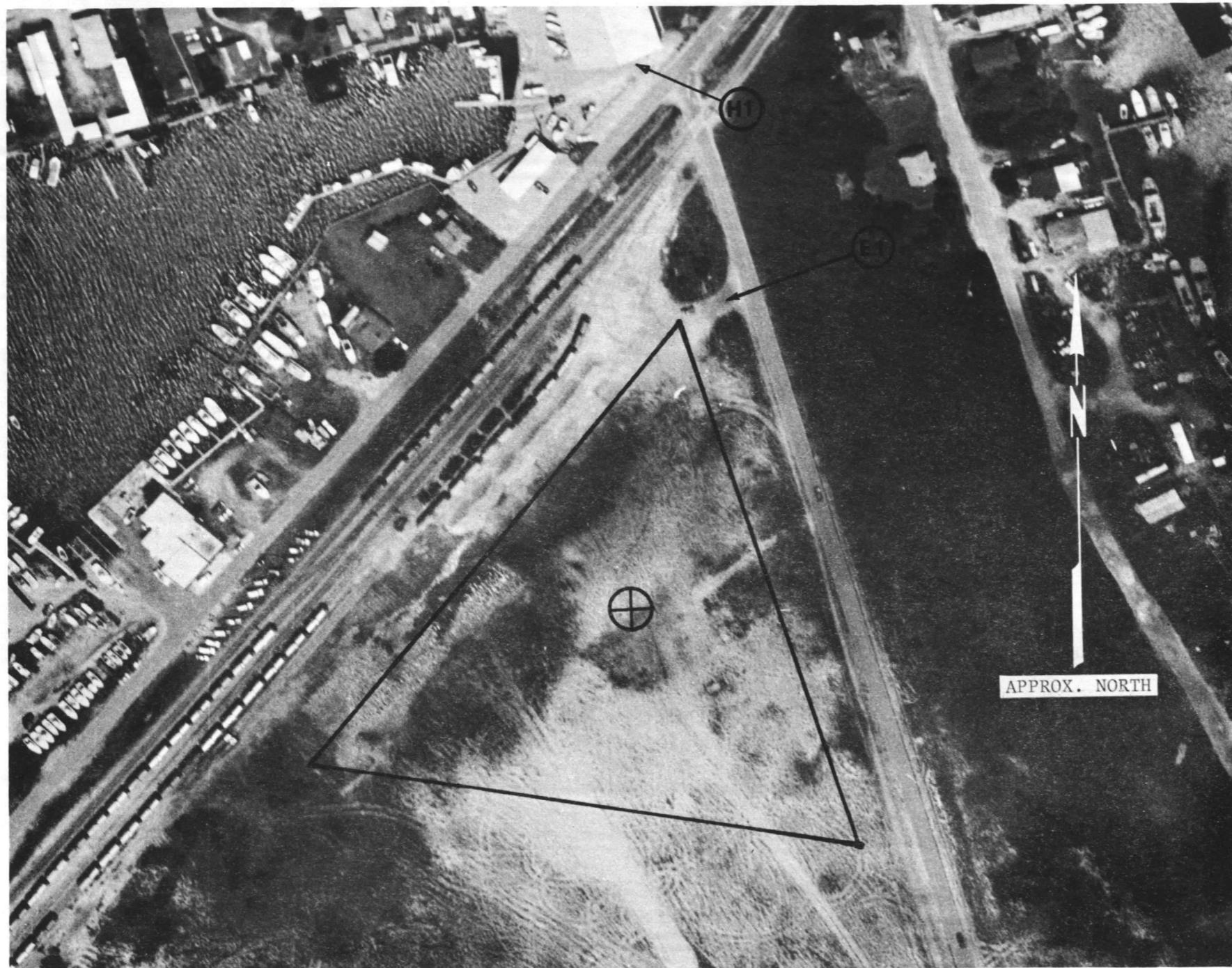
PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: RADIO ISLAND NO.17
- 2) BE NO./TDI CATEGORY CODE: 0410LM0039/70610
- 3) CENTER COORDINATE/GEO: 344305N0765110W
- 4) CENTER COORDINATE/UTM: 18SUP45604280
- 5) SHAPE: TRIANGULAR
- 6) DIMENSIONS: 280 METERS ON EACH SIDE (AVERAGE)
- 7) SLOPE PERCENT: 0%
- 8) NDB (NDB HEADING/RANGE-MOREHEAD) REFERENCE POINT: 068.0 MAG/3.5 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED N, E AND S OF LZ.
E1: DIRT ROAD EXTENDS NW TO HARD-SURFACE ROAD.
- 10) FLIGHT HAZARDS: H1: SMALL BOAT STORAGE BUILDING APPROX. 50 FEET IN HEIGHT.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	POOR	FAIR
TRACKED:	FAIR	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED ON NORTHERN EDGE OF RADIO ISLAND. EXTERNAL LIFT NOT AUTHORIZED. RAILROAD HOLDING YARD AND THROUGH TRACKS TO THE W OF LZ.

HLA ILLUSTRATION SHEET

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COUNTRY UNITED STATES	RECORD ID 0410LM0039	TDI CAT 70610
NAME RADIO ISLAND NO. 17	LAT/LONG 344305N0765110W	

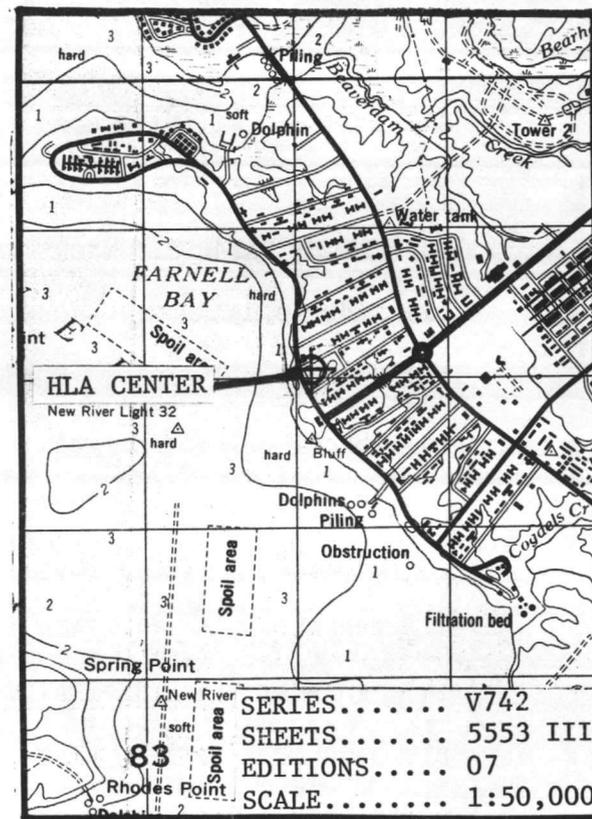
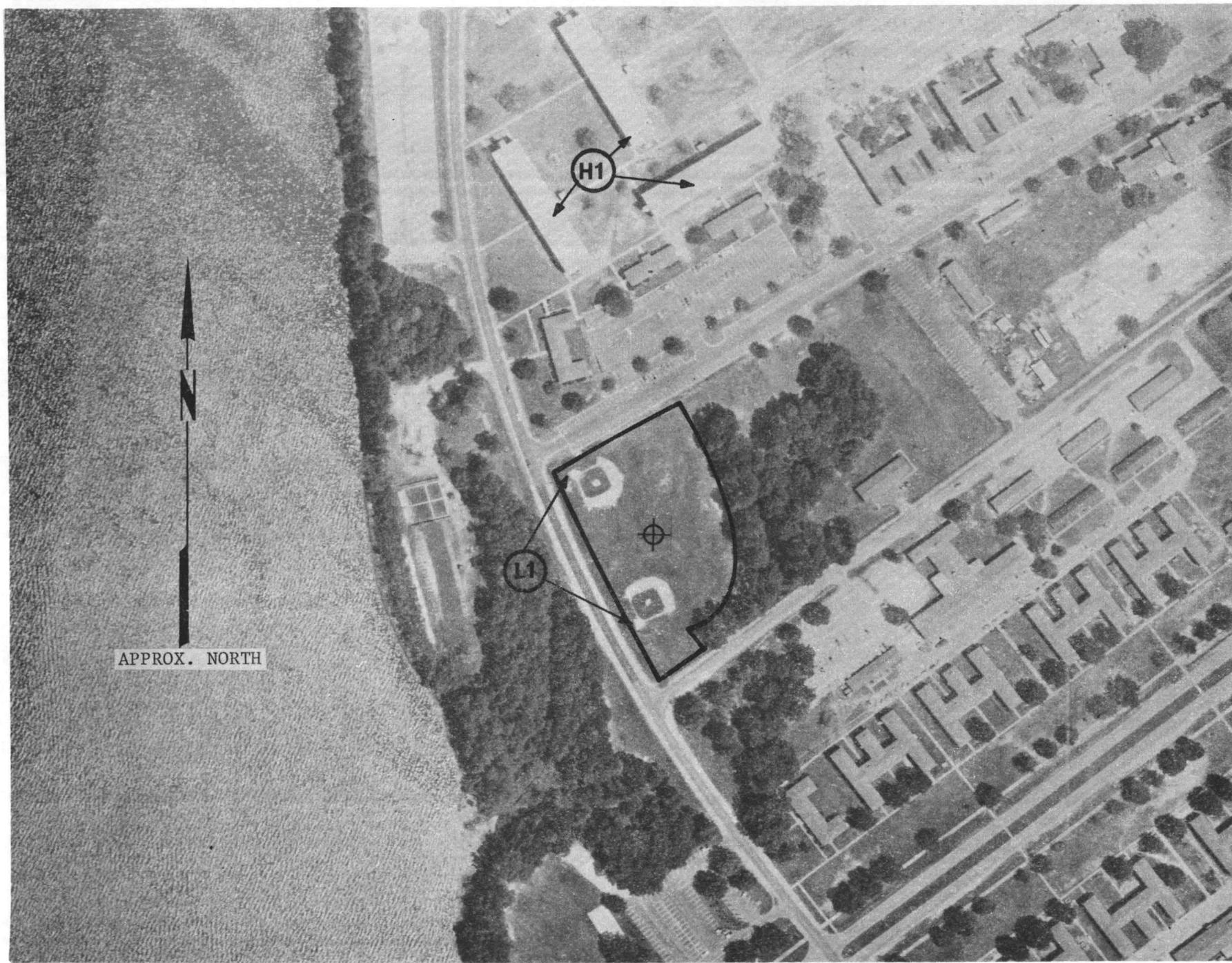
PRODUCED BY: 2D FIU
FOR: 2D MARDIV

- 1) NAME: 2D MAR AREA NO. 18
- 2) BE NO./TDI CATEGORY CODE: 0410LM0040/70610
- 3) CENTER COORDINATE/GEO: 343947N0772124W
- 4) CENTER COORDINATE/UTM: 18STP84093803
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 150 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 131.5 MAG/
9.1 KM
- 9) EXITS: CROSS-COUNTRY EXITS LOCATED N, W AND S OF LZ.
- 10) FLIGHT HAZARDS: H1: BARRACKS APPROX. 40 FEET IN HEIGHT.
- 11) LANDING HAZARDS: L1: BACKSTOPS.
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	FAIR	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED ALONG THE NEW RIVER IN
FARNELL BAY SECTOR. EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE E.

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COUNTRY UNITED STATES	RECORD ID 0410LM0040	TDI CAT 70610
NAME 2D MAR AREA NO. 18	LAT/LONG 343947N0772124W	

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: ITC NO. 19
- 2) BE NO./TDI CATEGORY CODE: 0410LM0041/70610
- 3) CENTER COORDINATE/GEO: 343420N0772709W
- 4) CENTER COORDINATE/UTM: 18STP75042814
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 20 METERS BY 15 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 5 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 193.5 MAG/

14.7 KM

- 9) EXITS: E1: DIRT ROAD EXTENDS E.

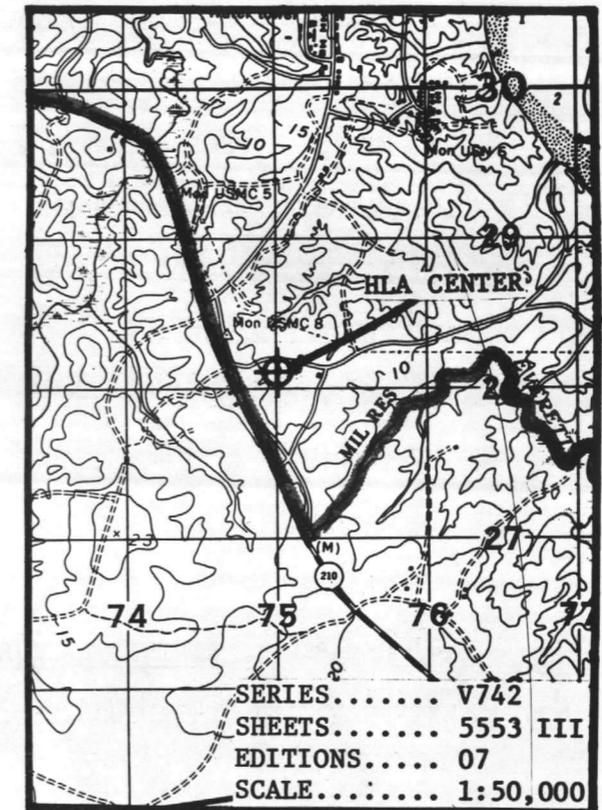
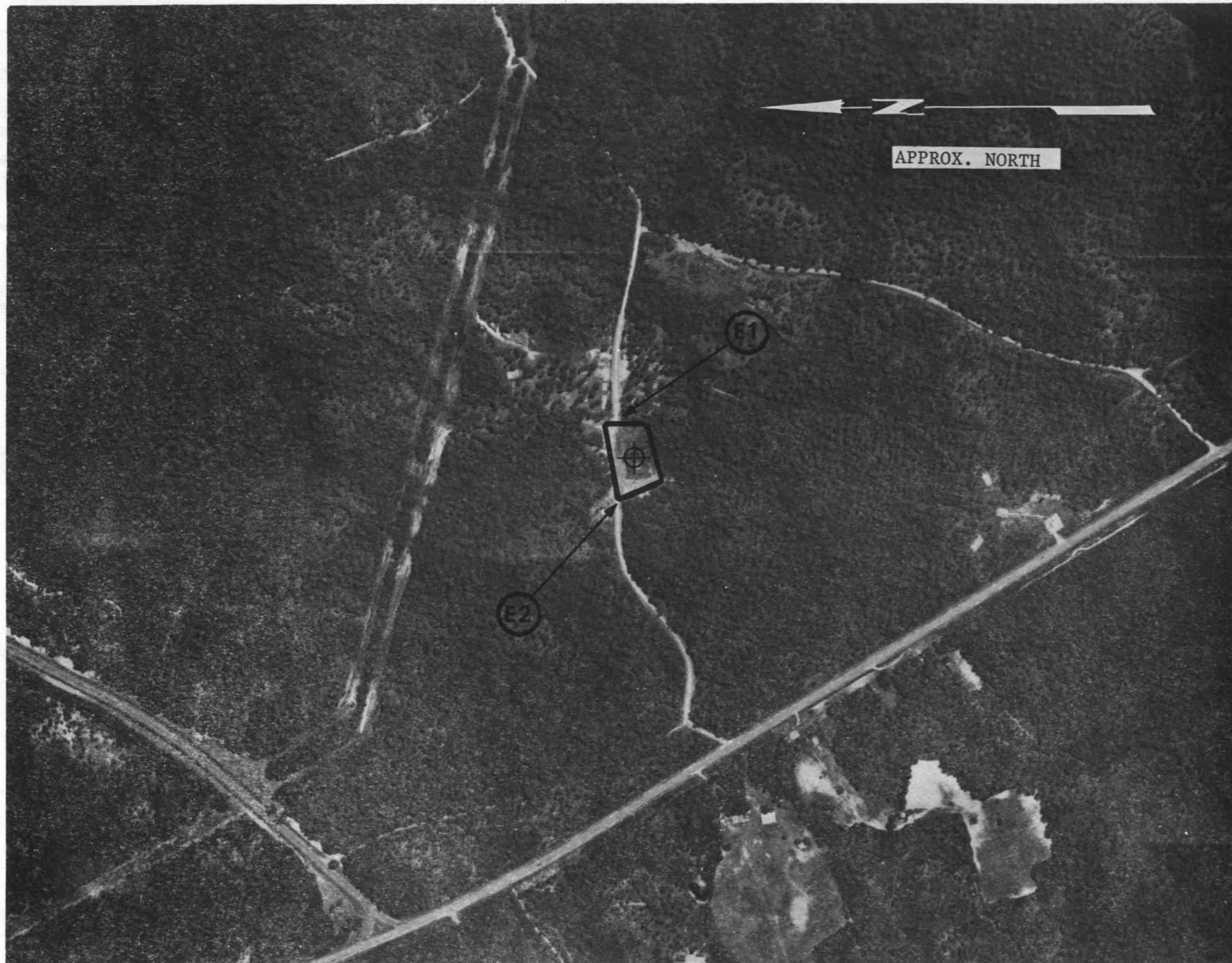
E2: DIRT ROAD EXTENDS W TO HARD SURFACE ROAD.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS, AND SCATTERED SCRUBS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA L, SUB-DIVISION LC. EXTERNAL LIFT NOT AUTHORIZED. SW PORTION OF LZ HAS MATTING WITH WHITE CIRCLE PAINTED IN THE CENTER.

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COUNTRY	UNITED STATES	RECORD ID	0410LM0041	TDI CAT	70610
NAME	ITC NO. 19	LAT/LONG	343420N0772709W		

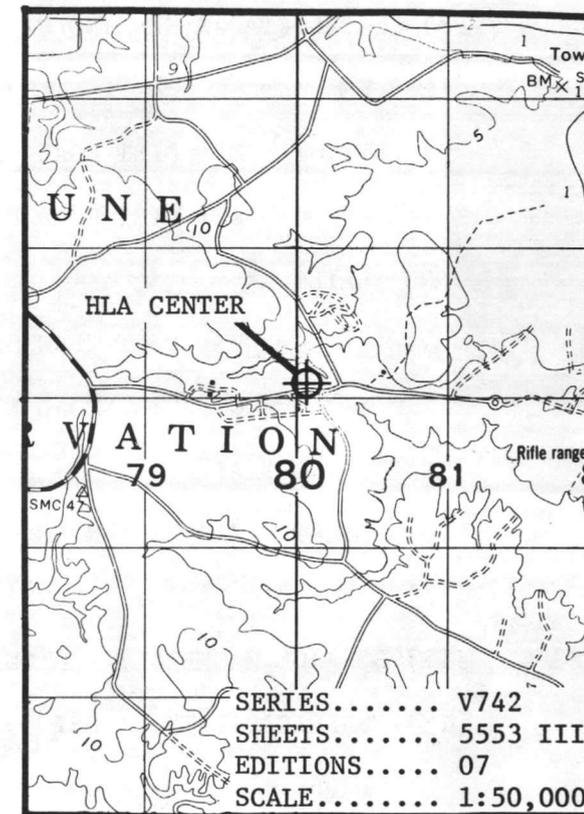
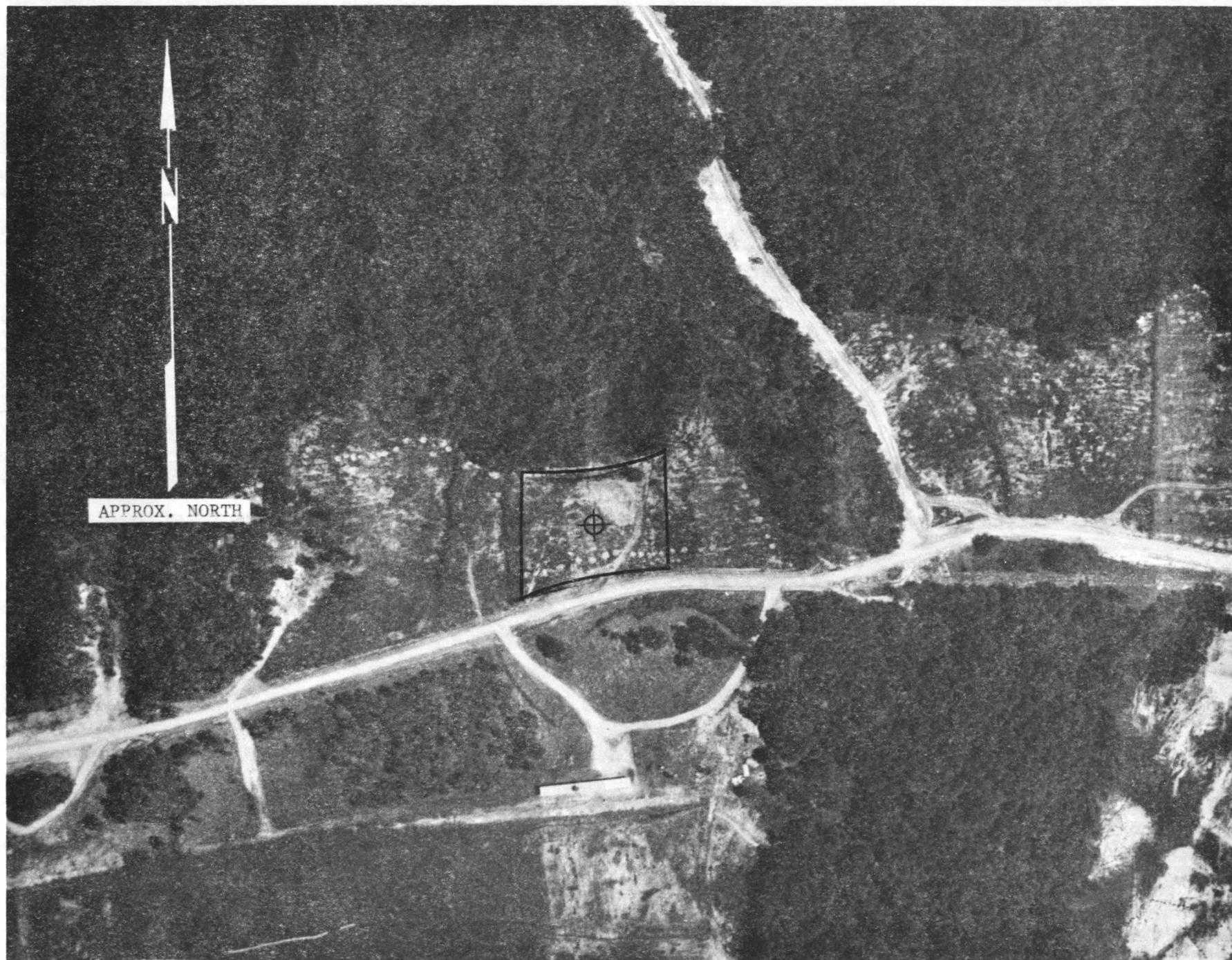
PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

- 1) NAME: VERONA LOOP NO.20
- 2) BE NO./TDI CATEGORY CODE: 0410LM0042/70610
- 3) CENTER COORDINATE/GEO: 343842N0772359W
- 4) CENTER COORDINATE/UTM: 18STP80063606
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 100 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 159.5 MAG/
7.3 KM
- 9) EXITS: CROSS-COUNTRY EXITS ALONG S OF LZ BORDERING DIRT ROAD.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS AND SCRUBS.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	POOR	FAIR
TRACKED:	FAIR	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA K.
EXTERNAL LIFT NOT AUTHORIZED. TREES TO THE N, E AND W OF LZ.

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DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0042	TDI CAT	70610
NAME	VERONA LOOP NO. 20	LAT/LONG	343842N0772359W		

PRODUCED BY: 2D FIIU
 FOR: 2D MARDIV

- 1) NAME: FRENCHS CREEK NO. 21
- 2) BE NO./TDI CATEGORY CODE: 0410LM0043/70610
- 3) CENTER COORDINATE/GEO: 343837N0771939W
- 4) CENTER COORDINATE/UTM: 18STP86673580
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 110 METERS BY 75 METERS (AVERAGE)
- 7) SLOPE PERCENT: 1 - 6 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 131.5 MAG/

12.5 KM

- 9) EXITS: E1: DIRT ROAD EXTENDS NW TO HARD-SURFACE ROAD.
E2: DIRT ROAD EXTENDS NE TO HARD-SURFACE ROAD/CROSS-COUNTRY TRACKS
AND TRAILS.
E3: DIRT TRACKS EXTENDS SE TO CROSS-COUNTRY TRACKS AND TRAILS.
E4: DIRT ROAD EXTENDS SW TO HARD-SURFACE ROAD/CROSS-COUNTRY

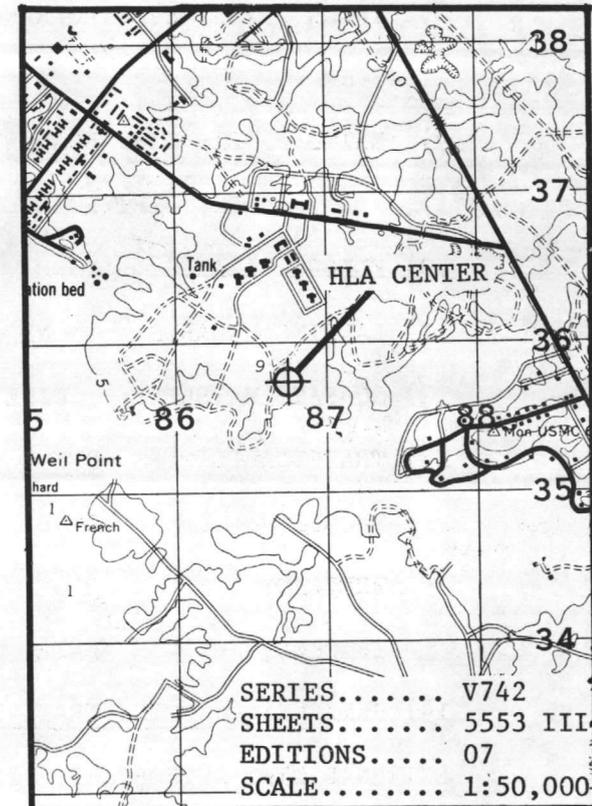
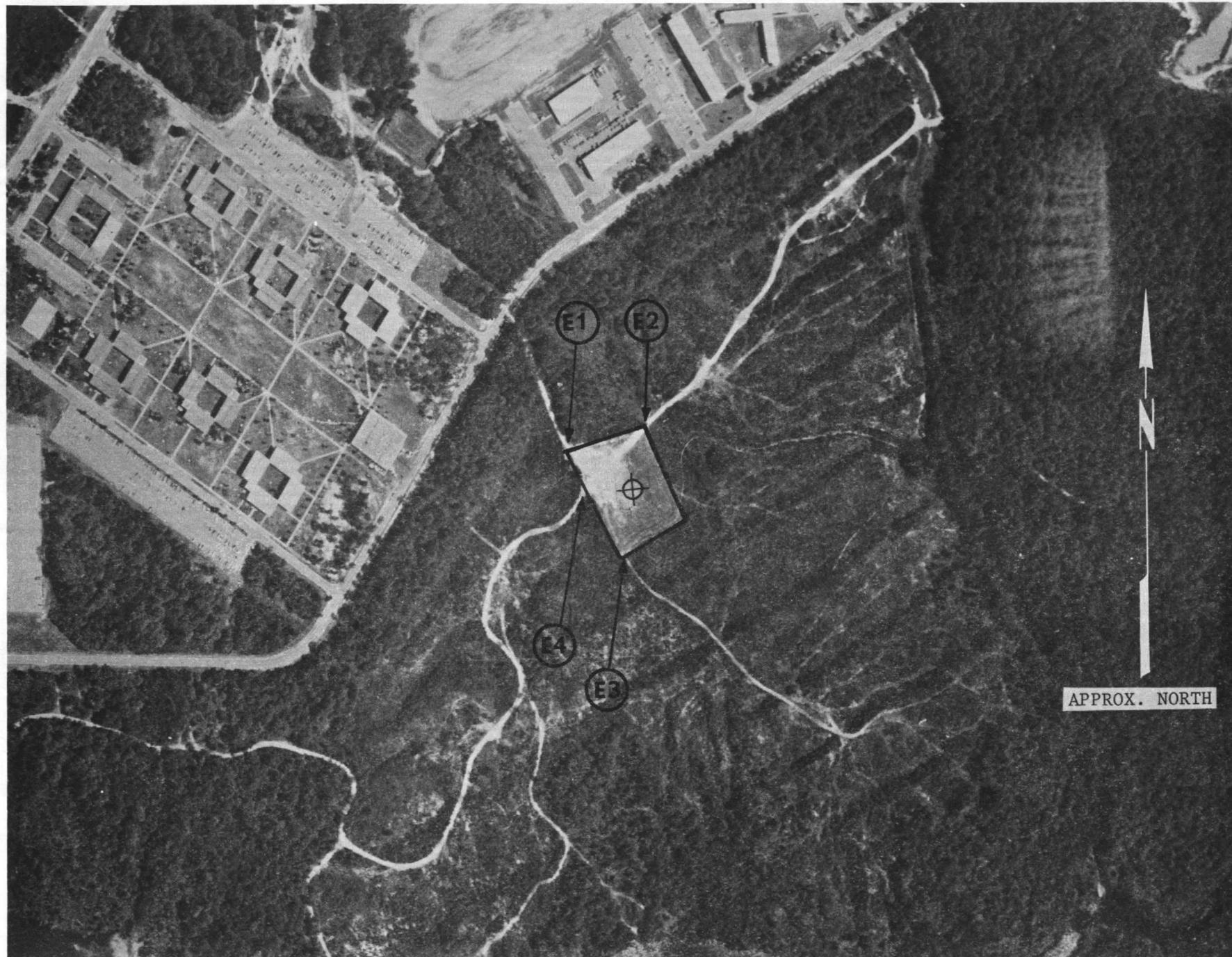
TRACKS AND TRAILS.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD

- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA D, SUB-DIVISION DC. EXTERNAL LIFT NOT AUTHORIZED.

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COUNTRY	UNITED STATES	RECORD ID	0410LM0043	TDI CAT	70610
NAME	FRENCHS CREEK NO.21		LAT/LONG 343837N0771939W		

PRODUCED BY: 2D FIU
 FOR: 2D MARDIV

- 1) NAME: RISLEY PIER NO.22 (ADJACENT TO)
- 2) BE NO./TDI CATEGORY CODE: 0410LM0044/70610
- 3) CENTER COORDINATE/GEO: 343340N0771710W
- 4) CENTER COORDINATE/UTM: 18STP90282655
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 125 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 2 - 10 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 148.0 MAG/
21.45 KM

9) EXITS: E1: DIRT ROAD EXTENDS SE TO INTERSECTION WITH DIRT COASTAL ROAD.

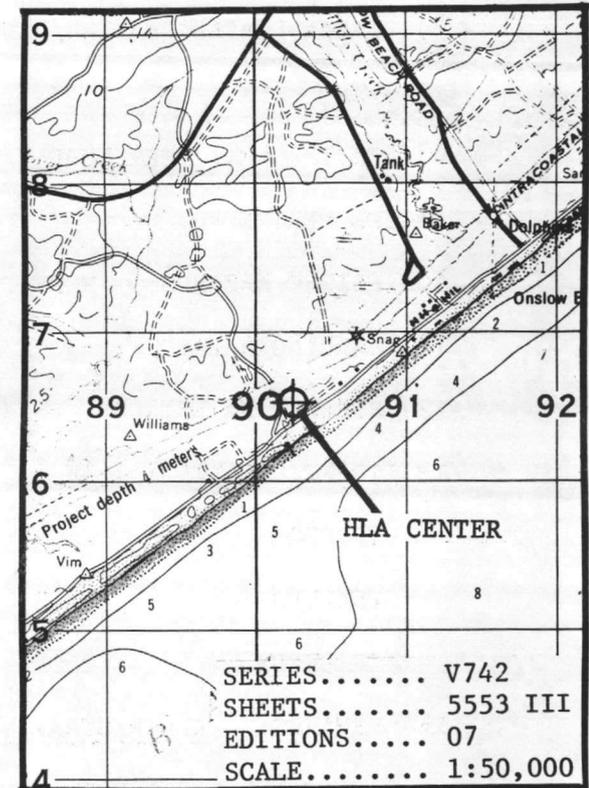
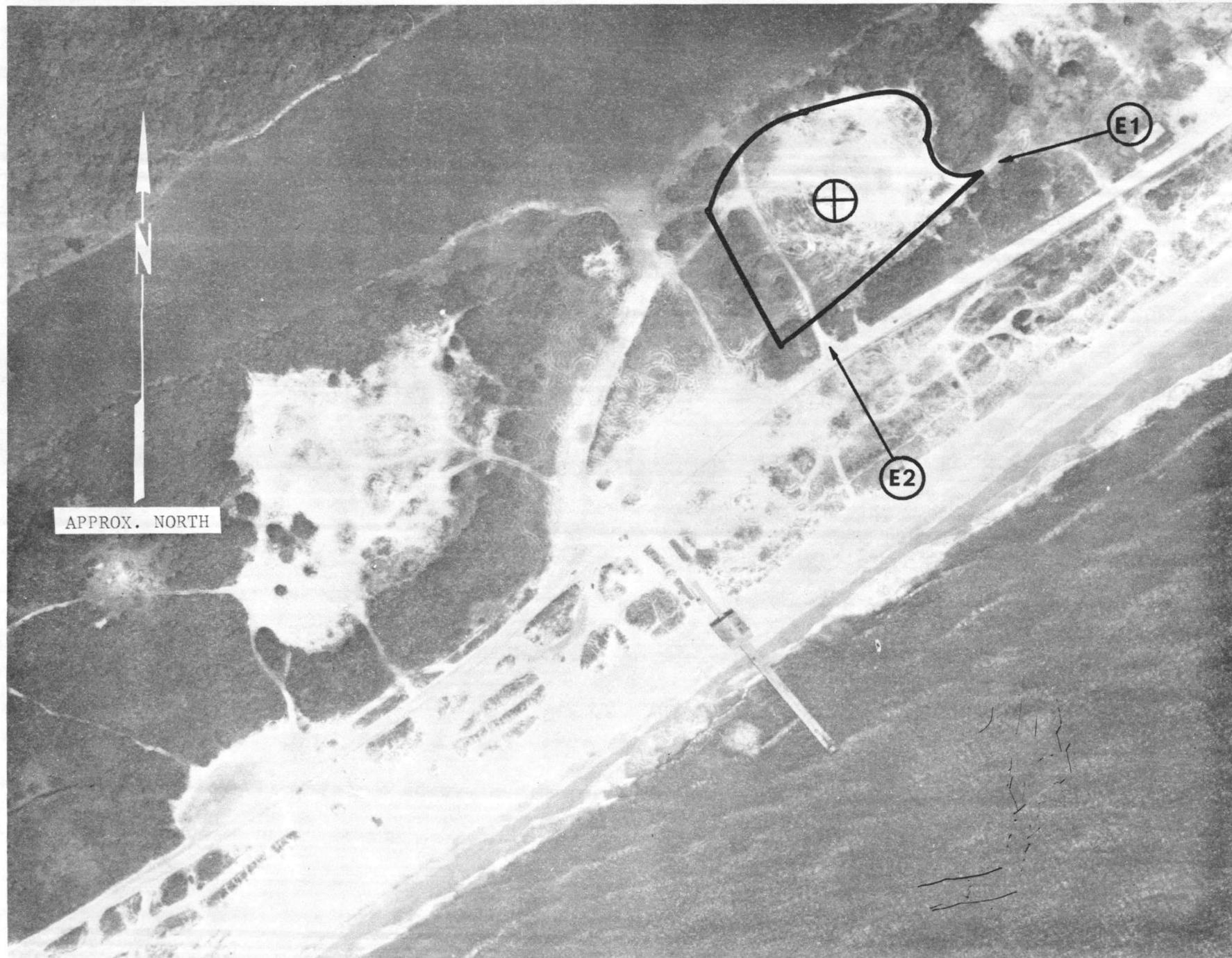
E2: DIRT ROAD EXTENDS S TO INTERSECTION WITH DIRT COASTAL ROAD.

- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: FINE SAND WITH SPARSE GRASS.
- 13) TRAFFICABILITY: DRY WET
TROOPS: GOOD GOOD
WHEELED: POOR FAIR
TRACKED: FAIR GOOD

14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA E.
EXTERNAL LIFT AUTHORIZED. INTRACOASTAL WATERWAY TO THE N OF LZ. NUMEROUS
AREAS NEAR THE LZ MAY BE SUITABLE FOR LANDING AREAS.

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DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0044	TDI CAT	70610
NAME	RISLEY PIER NO.22 (ADJACENT TO)		LAT/LONG 343340N0771710W		

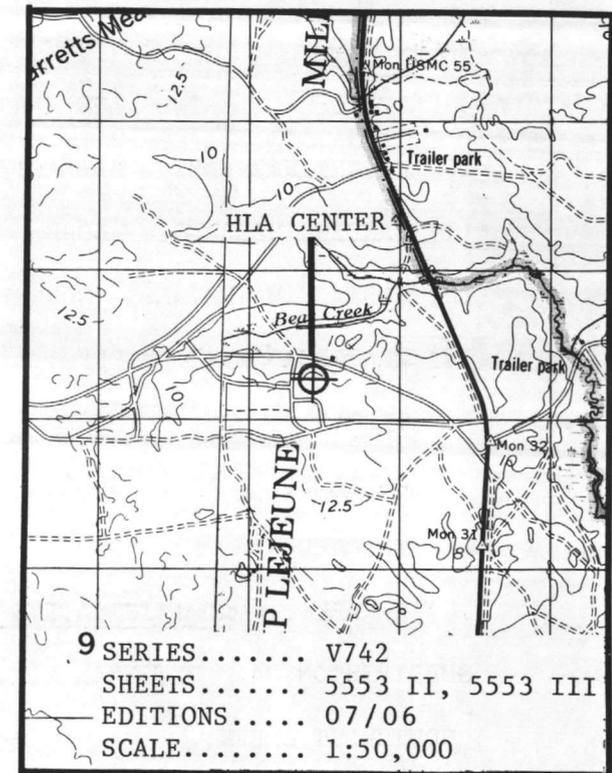
PRODUCED BY: 2D FIU
 FOR: 2D MARDIV

- 1) NAME: SQUAD LEADERS TENT CAMP NO. 23
- 2) BE NO./TDI CATEGORY CODE: 0410LM0045/70610
- 3) CENTER COORDINATE/GEO: 343930N0771438W
- 4) CENTER COORDINATE/UTM: 18STP94413721
- 5) SHAPE: RECTANGULAR
- 6) DIMENSIONS: 125 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 - 4 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) - REFERENCE POINT: 115.5 MAG/
19.0 KM
- 9) EXITS: E1: DIRT ROAD EXTENDS WEST OF LANDING ZONE. CROSS-COUNTRY EXITS AROUND
ENTIRE PERIMETER.
- 10) FLIGHT HAZARDS: NONE
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIALS: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY: DRY WET

TROOPS:	GOOD	GOOD
WHEELED:	FAIR	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA Q, SUBDIVISION
QB. EXTERNAL LIFTS NOT AUTHORIZED. CAUTION SHOULD BE NOTED ON APPROACH TO
LANDING ZONE DUE TO SCHRUBS AND TREES.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



COUNTRY	UNITED STATES	RECORD ID	0410LM0045	TDI CAT	70610
NAME	SQUAD LEADERS TENT CAMP NO. 23		LAT/LONG 343930N0771438W		

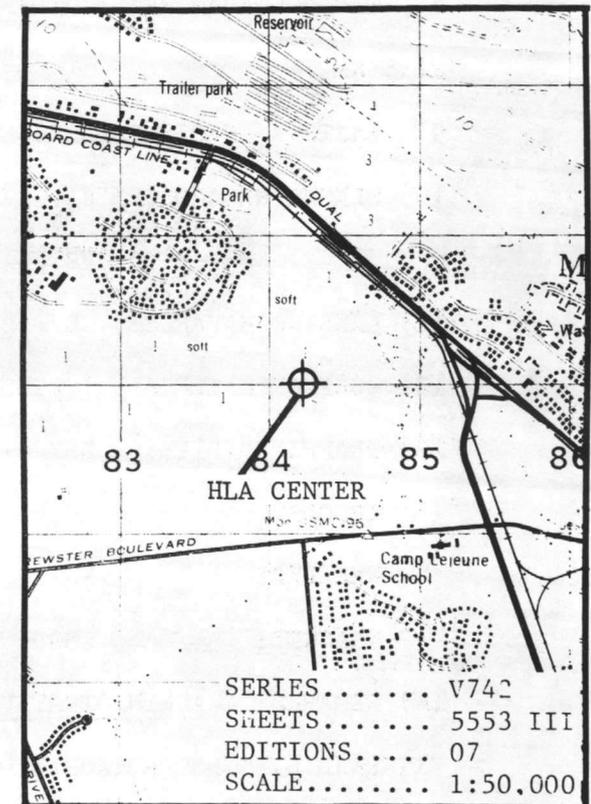
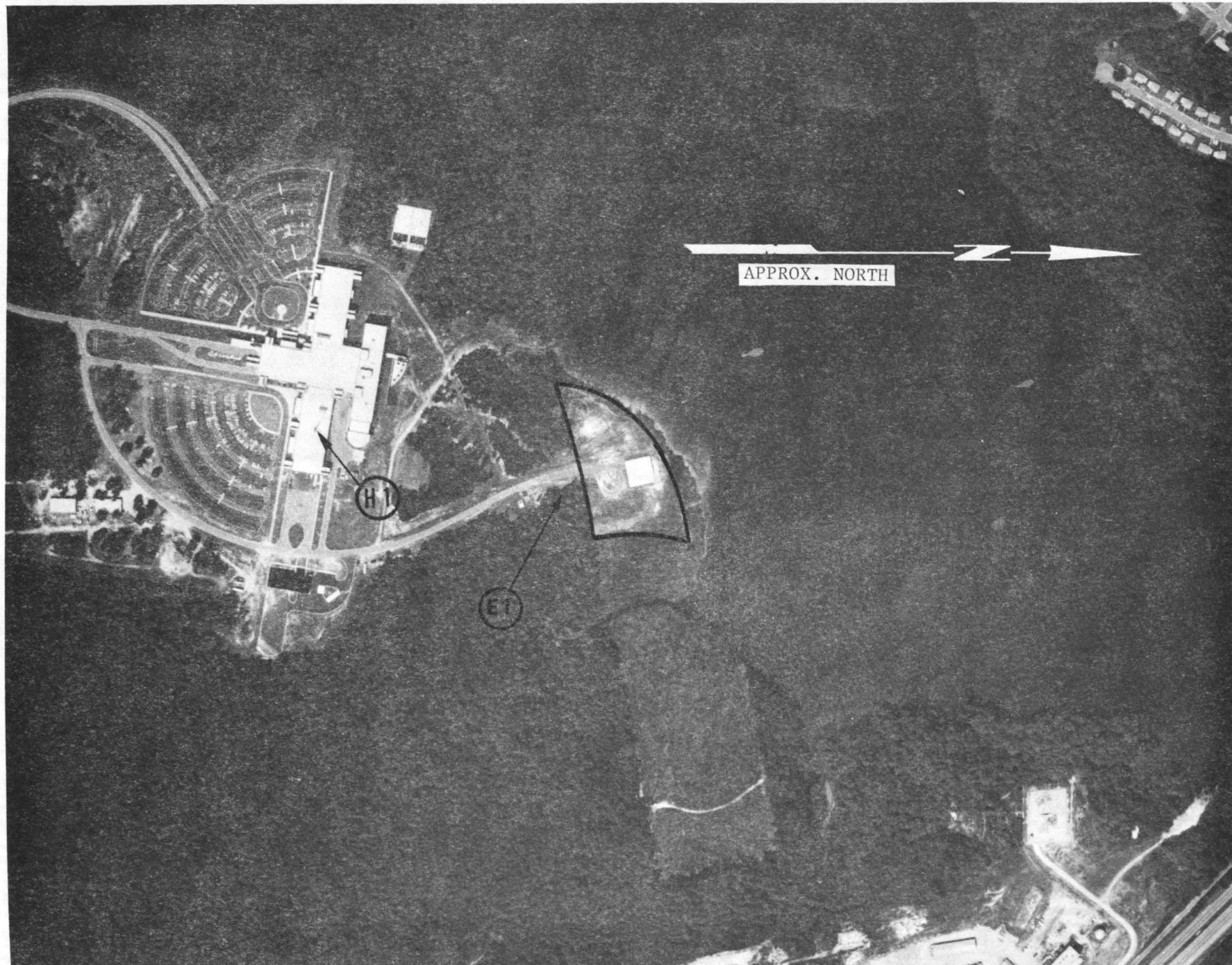
PRODUCED BY: 2D FIIU
 FOR: 2D MARDIV

- 1) NAME: NAVAL HOSPITAL NO.24
- 2) BE NO./TDI CATEGORY CODE: 0410LM0046/70610
- 3) CENTER COORDINATE/GEO: 344335N0772125W
- 4) CENTER COORDINATE/UTM: 18STP84204502
- 5) SHAPE: IRREGULAR
- 6) DIMENSIONS: 175 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 083.5 MAG/
81 KM
- 9) EXITS: E1: TWO LANE HARD-SURFACE ROAD EXTENDS S TO HOSPITAL.
- 10) FLIGHT HAZARDS: H1: ANTENNA ON HOSPITAL.
- 11) LANDING HAZARDS: NONE
- 12) SURFACE MATERIAL: CONCRETE LANDING PAD SURROUNDED BY FINE SAND.
- 13) TRAFFICABILITY:

	<u>DRY</u>	<u>WET</u>
TROOPS:	GOOD	GOOD
WHEELED:	GOOD	GOOD
TRACKED:	GOOD	GOOD
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA C,
SUBDIVISION CA. EXTERNAL LIFT NOT AUTHORIZED. LZ IS BORDERED TO THE N BY
SOUTHWEST CREEK.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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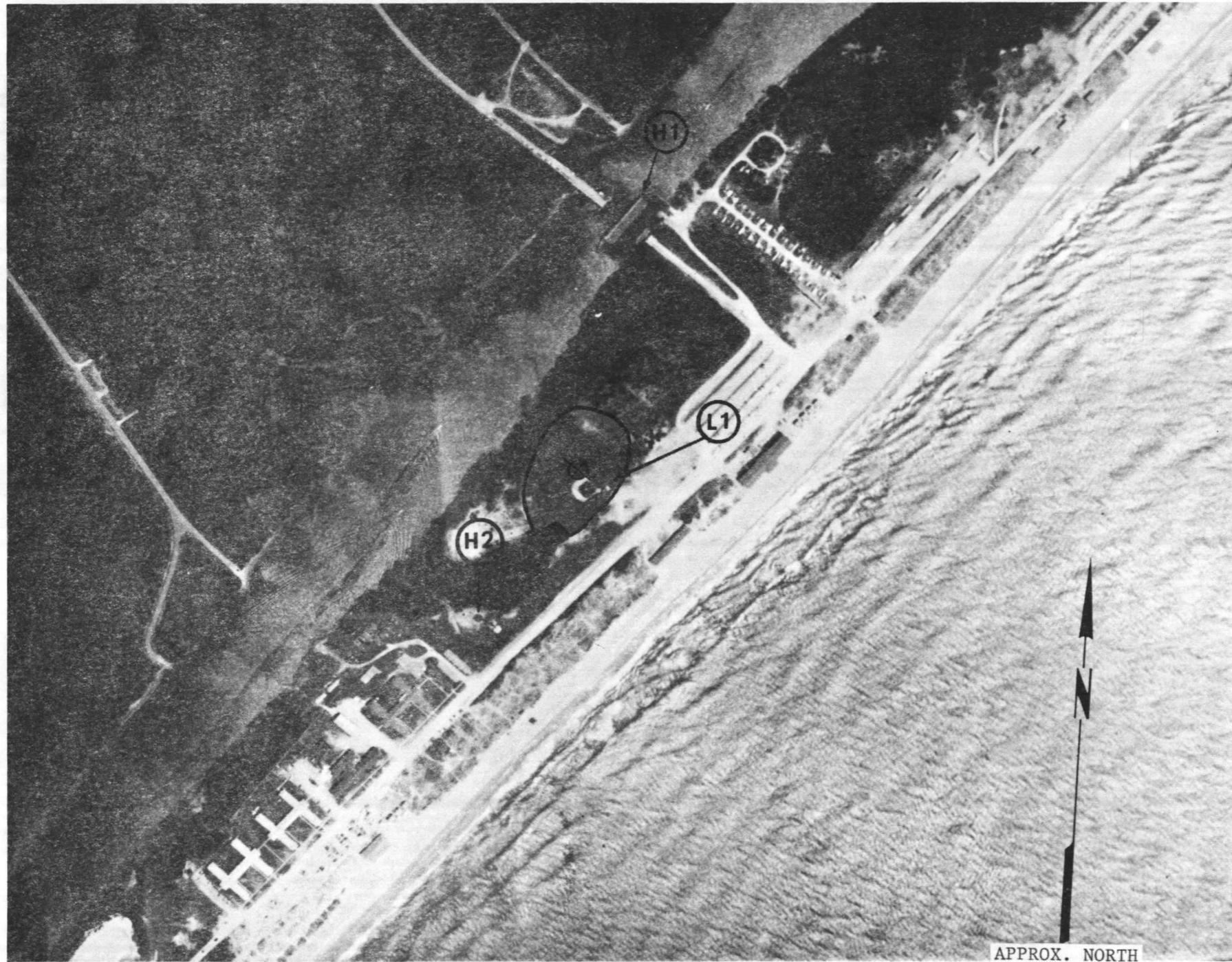
COUNTRY UNITED STATES	RECORD ID 0410LM0046	TDI CAT 70610
NAME NAVAL HOSPITAL NO. 24	LAT/LONG 344335N0772125W	

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

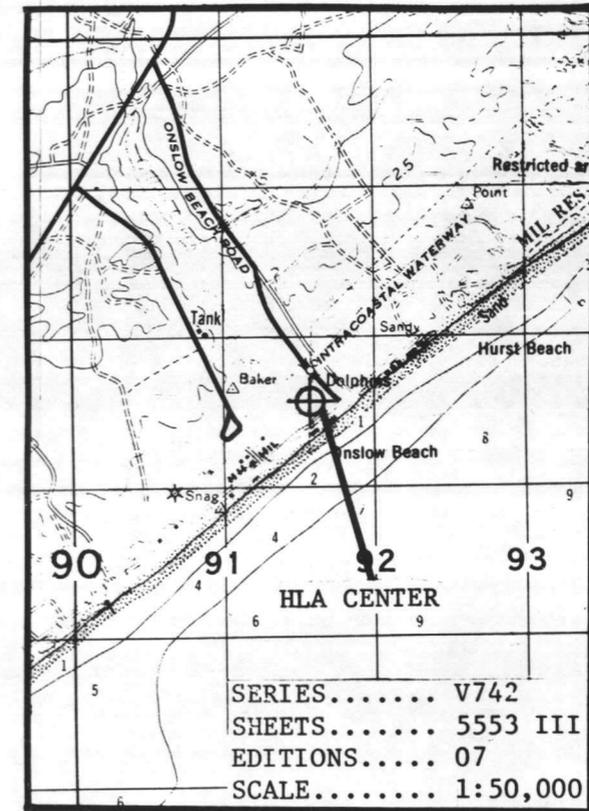
- 1) NAME: RECON NO.25
- 2) BE NO./TDI CATEGORY CODE: 0410LM0047/70610
- 3) CENTER COORDINATE/GEO: 34310N0071625W
- 4) CENTER COORDINATE/UTM: 18STP91482748
- 5) SHAPE: OVAL
- 6) DIMENSIONS:120 METERS BY 100 METERS (AVERAGE)
- 7) SLOPE PERCENT: 0 %
- 8) TACAN (TACAN HEADING/RANGE-MCAS (H), NEW RIVER) REFERENCE POINT: 144.5 MAG/
21.5 KM
- 9) EXITS: CROSS-COUNTRY EXITS EXTEND S TO HARD-SURFACE ROAD.
- 10) FLIGHT HAZARDS: H1: CENTER SWING BRIDGE.
H2: WATER TOWER.
- 11) LANDING HAZARDS: L1: BACKSTOP.
- 12) SURFACE MATERIAL: FINE SAND WITH DENSE GRASS.
- 13) TRAFFICABILITY: DRY WET
- | | | |
|----------|------|------|
| TROOPS: | GOOD | GOOD |
| WHEELED: | FAIR | GOOD |
| TRACKED: | GOOD | GOOD |
- 14) REMARKS: ADMINISTRATIVE LANDING ZONE. LOCATED IN TRAINING AREA E.
EXTERNAL LIFT NOT AUTHORIZED. INTRACOASTAL WATERWAY TO THE W OF LZ. ONLY
MARKED WATER CROSSINGS AND BRIDGES MAY BE USED.

HLA ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



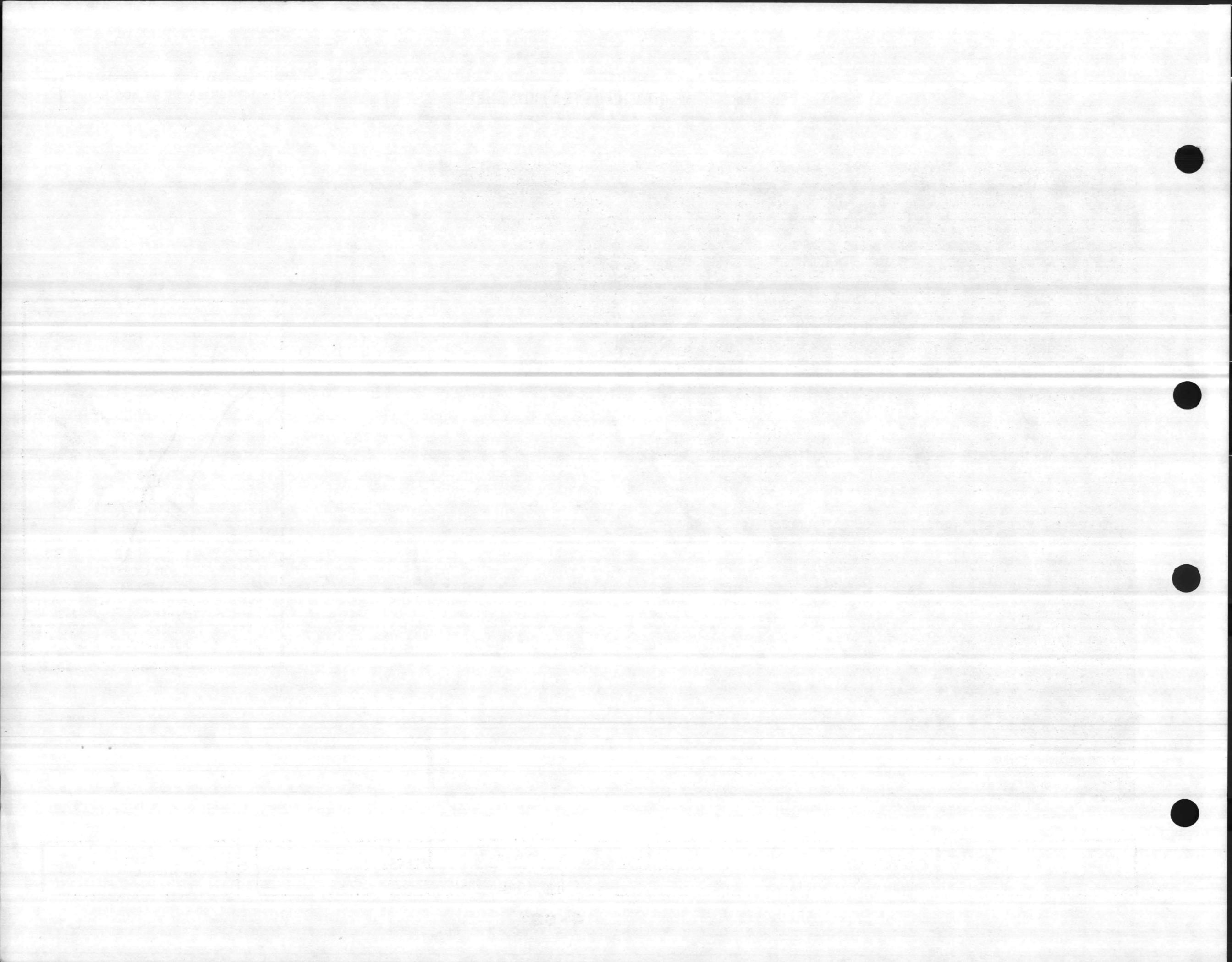
APPROX. NORTH



[Empty box]

COUNTRY	UNITED STATES	RECORD ID	0410LM0047	TDI CAT	70610
NAME	RECON NO. 25	LAT/LONG	343410N0771625W		

PRODUCED BY: 2D F1IU
FOR: 2D MARDIV

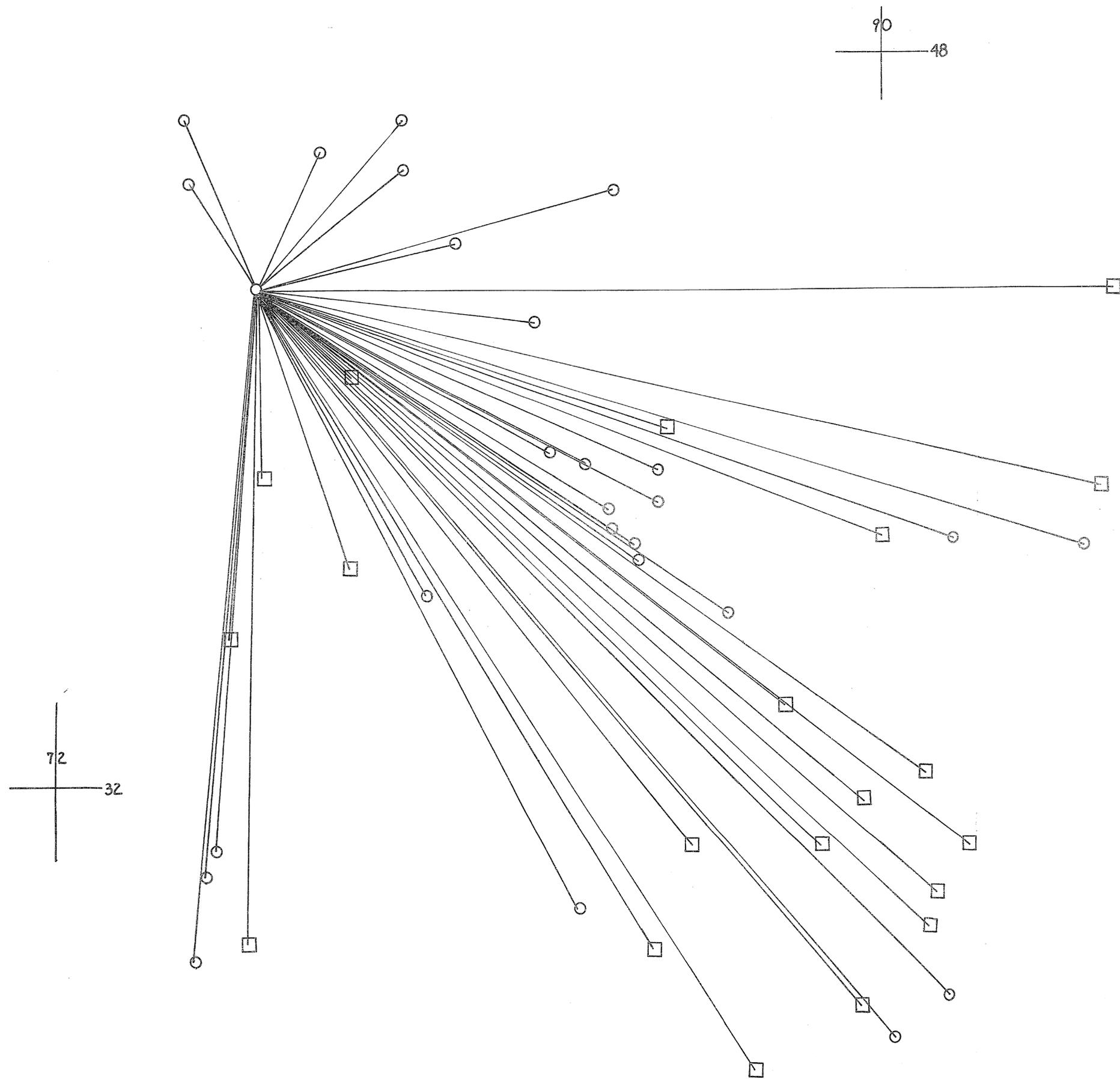


OVERLAY

1. TLZ AND ALZ LOCATIONS

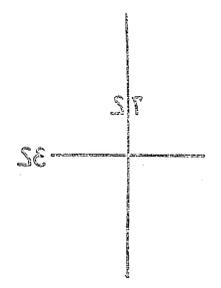
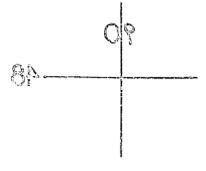
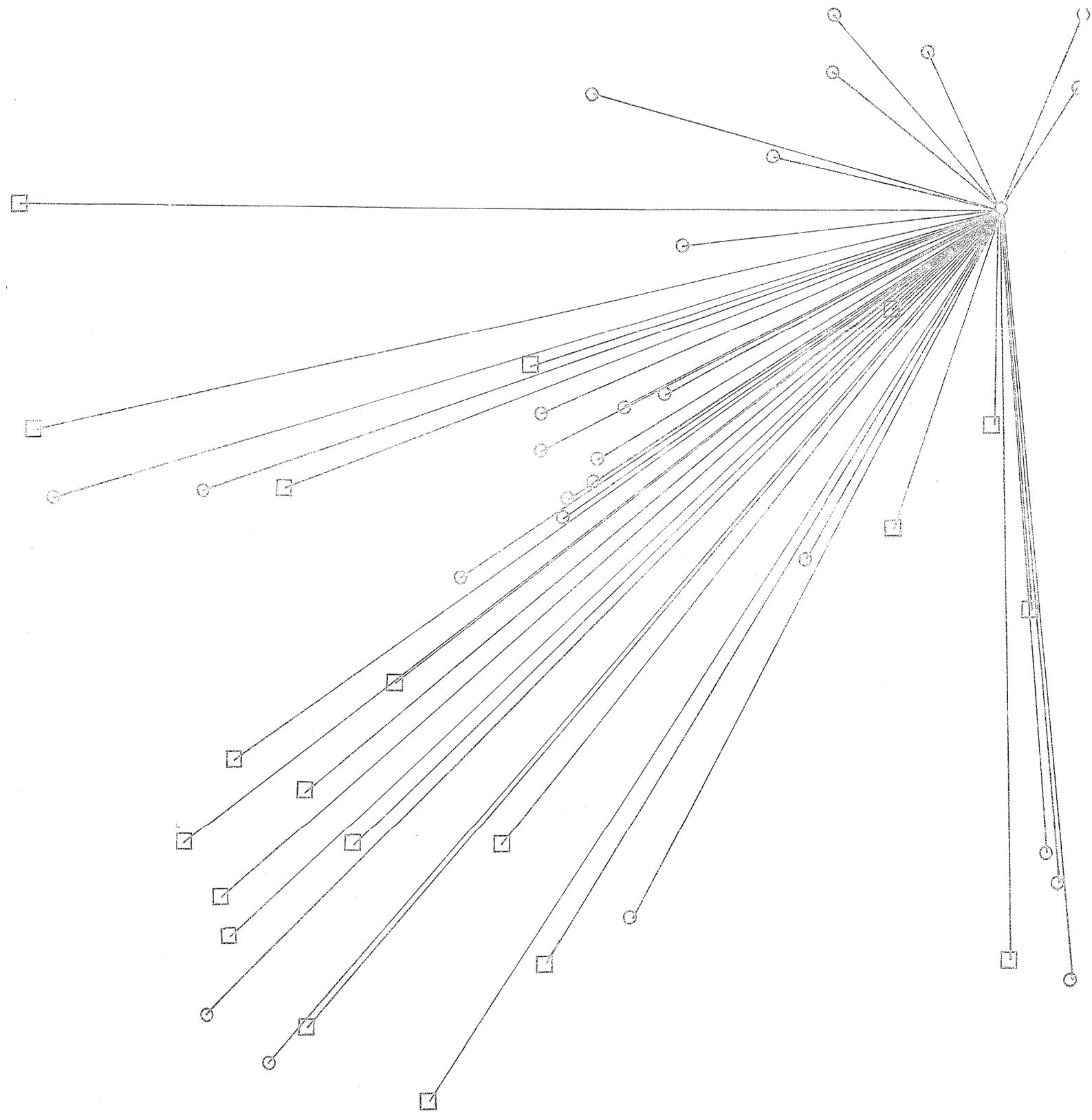
YALDEVO

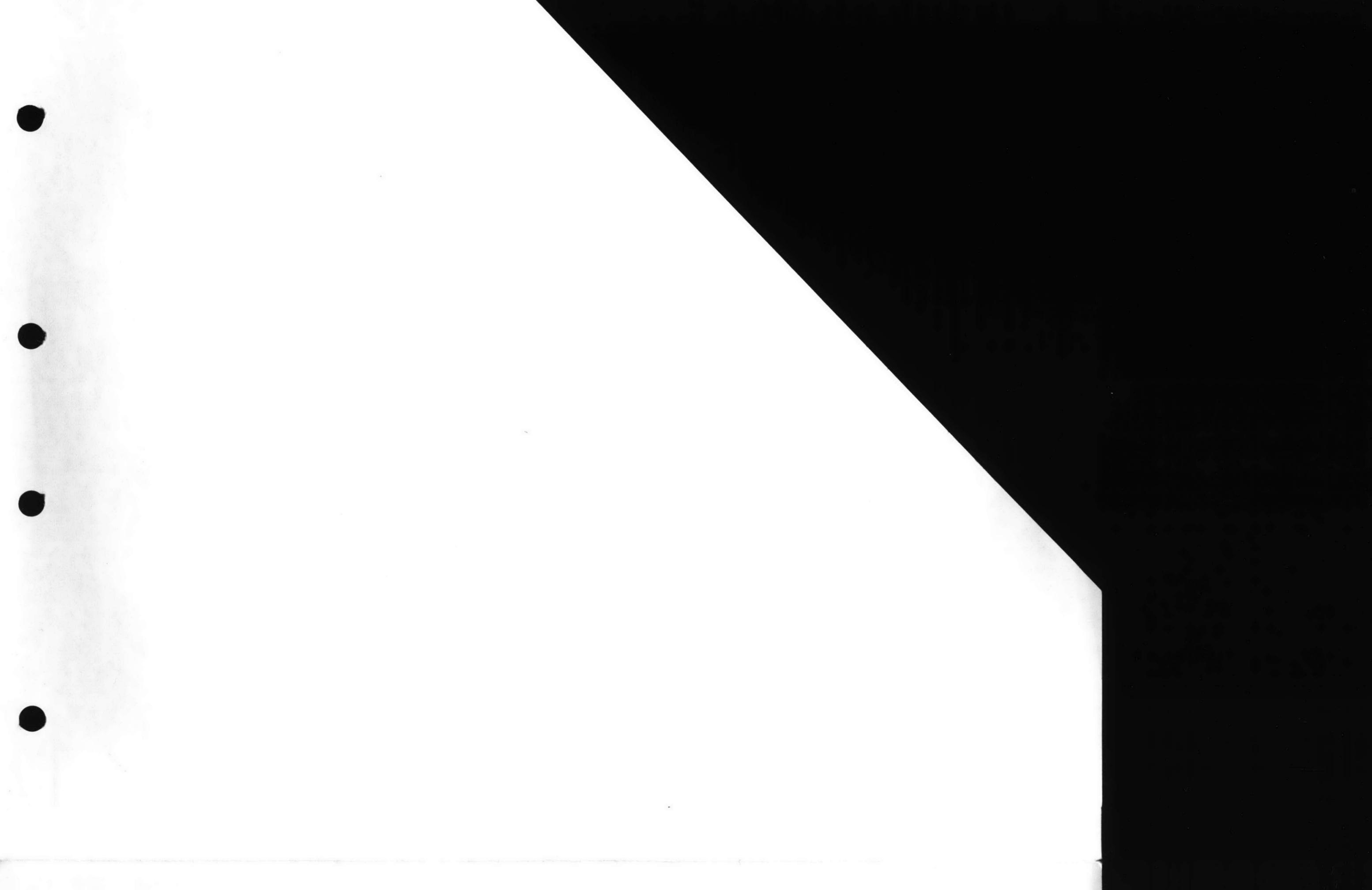
ZHCHTAJOU JIA QNR SIT



TLZ AND ALZ LOCATIONS
 □ TLZ'S
 ○ ALZ'S
 10 JANUARY 85

10 JANUARY 88
ALS'S C
TLZ'S □
TLZ AND ALS LOCATIONS







CHAPTER 5

BEACH STUDY

YOUR HOUSE

1. PURPOSE. THIS BEACH STUDY IS CONSTRUCTED TO AID THE TACTICAL UNIT COMMANDER IN PLANNING AMPHIBIOUS OPERATIONS AT ONSLOW BEACH. THE FIRST TWO GRAPHICS DEPICT THE GENERAL TERRAIN ZONES. THE LAST THREE GRAPHICS IDENTIFY HAZARDS TO NAVIGATION, LANDING OBSTRUCTIONS AND EXITS FROM THE BEACH.

2. DESCRIPTION. ONSLOW BEACH IS LOCATED ON THE CAMP LEJEUNE MILITARY RESERVATION ALONG THE COAST OF NORTH CAROLINA. IT IS APPROXIMATELY 28 NAUTICAL MILES WEST SOUTHWEST OF MOREHEAD CITY AND APPROXIMATELY 39 NAUTICAL MILES NORTH NORTHEAST OF WILMINGTON. ONSLOW BEACH IS BOUNDED BY THE NEW RIVER INLET ON THE LEFT FLANK AND BROWNS INLET ON THE RIGHT FLANK. IT IS A LONG, STRAIGHT, SANDY BEACH USED PRIMARILY BY THE U. S. NAVY AND MARINE CORPS FOR AMPHIBIOUS TRAINING AND EXERCISES.

3. BEACH DATA.

- A. BEACH NAME: ONSLOW BEACH, CAMP LEJEUNE, NORTH CAROLINA
- B. B.E. NUMBER/TDI CATEGORY CODE: 0410LM0060/70550
- C. LOCATION:
 CENTER BEACH COORDINATES: GEO: 343340N0771700W UTM: 18STP906265
 LEFT FLANK COORDINATES: GEO: 343155N0772020W UTM: 18STP855235
 RIGHT FLANK COORDINATES: GEO: 343545N0771355W UTM: 18STP953303
- D. MAP REFERENCE: CAMP LEJEUNE SPECIAL MAP, SERIES V742, DMATC AND DMAHC

EDITION 05, SCALE 1:50,000

- E. BEACH SHAPE: STRAIGHT
- F. BEACH LENGTH: APPROXIMATELY 12,000 METERS
- G. BEACH WIDTH:

	<u>LEFT THIRD</u>	<u>CENTER THIRD</u>	<u>RIGHT THIRD</u>
AVERAGE TOTAL BEACH	78 METERS	79 METERS	97 METERS
AVERAGE BACK-SHORE	44 METERS	42 METERS	49 METERS
- H. BEACH GRADIENTS:

	<u>LEFT THIRD</u>	<u>CENTER THIRD</u>	<u>RIGHT THIRD</u>
	1:4.8	1:5.3	1:5.8

I. APPROACH CONDITIONS: THE OFFSHORE APPROACH TO ONSLOW BEACH IS CLEAR. THE NEARSHORE APPROACH CONDITIONS VARY FROM CLEAR TO PARTIALLY CLEAR DEPENDING ON FLOATING SANDBARS. THIS BEACH CONTAINS NO ONSHORE FORTIFICATIONS.

J. BEACH MATERIALS:

- NEARSHORE - 80% SAND; 10% MUD; 10% SHELLS
- FORESHORE - 80% SAND; 10% MUD; 10% SHELLS
- BACKSHORE - 80% SAND; 10% MUD; 10% SHELLS

K. TERRAIN ZONES AND TRAFFICABILITY: (GRAPHICS 1 & 2)

<u>ZONE</u>	<u>DEFINITION</u>	<u>PERSONNEL</u>	<u>TRACKED</u>	<u>WHEELED</u>
1	BERM	WET: FAIR DRY: POOR	WET: FAIR DRY: FAIR	WET: FAIR DRY: POOR
2	DENSE VEGETATED LOW GROUND (SWAMP)	POOR	POOR	POOR
3	WATER	N/A	FORDABLE	N/A
4	MARSH	POOR	POOR	POOR
5	DESIGNATED HLZ	WET: FAIR DRY: GOOD	WET: FAIR DRY: GOOD	WET: FAIR DRY: GOOD
6	OPEN HIGH GROUND	WET: FAIR DRY: FAIR	WET: FAIR DRY: FAIR	WET: FAIR DRY: FAIR
7	BUILT UP AREA	WET: FAIR DRY: FAIR	WET: FAIR DRY: FAIR	WET: FAIR DRY: FAIR

L. WEATHER: GENERAL WEATHER INFORMATION IS CONTAINED IN CHAPTER 7 (CLIMATOLOGY). REQUESTS FOR FORECASTED WEATHER AND ASTRONOMICAL DATA SHOULD BE ADDRESSED TO MCAS (H), NEW RIVER WEATHER SERVICES.

M. BEACH/NEARSHORE OBSTRUCTIONS: (GRAPHICS 3, 4 & 5)

- B1 - A BUILDING 7.9 METERS LONG AND 9.9 METERS WIDE. IT IS LOCATED APPROXIMATELY 450 METERS FROM BEACH CENTER ON A BEARING OF 275 DEGREES (TRUE). NOTE: N1 IS ATTACHED TO B1.
- B2 - A BUILDING APPROXIMATELY 4 METERS LONG AND 4 METERS WIDE. IT IS

LOCATED APPROXIMATELY 1100 METERS FROM BEACH CENTER ON A BEARING OF 084 DEGREES (TRUE).

N1 - A PIER APPROXIMATELY 193 METERS LONG AND 6.6 METERS WIDE. IT IS LOCATED APPROXIMATELY 450 METERS FROM BEACH CENTER ON A BEARING OF 265 DEGREES (TRUE). NOTE: N1 IS COMMONLY REFERRED TO AS RISELEY PIER.

N. <u>TRAFFICABILITY</u>	<u>DRY</u>	<u>WET</u>
PERSONNEL	FAIR	GOOD
TRACKED	FAIR	GOOD
WHEELED	FAIR	POOR

O. BEACH EXITS: (GRAPHICS 3, 4 & 5)

E1 - LOCATED APPROXIMATELY 3400 METERS LEFT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 8 METERS WIDE.

E2 - LOCATED APPROXIMATELY 1050 METERS LEFT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 2 METERS WIDE.

E3 - LOCATED APPROXIMATELY 400 METERS LEFT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 10 METERS WIDE.

E4 - LOCATED APPROXIMATELY 700 METERS RIGHT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 2 METERS WIDE.

E5 - LOCATED APPROXIMATELY 900 METERS RIGHT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 1.5 METERS WIDE.

E6 - LOCATED APPROXIMATELY 1550 METERS RIGHT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 7 METERS WIDE.

E7 - LOCATED APPROXIMATELY 1565 METERS RIGHT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 4 METERS WIDE.

E8 - LOCATED APPROXIMATELY 1580 METERS RIGHT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 2 METERS WIDE.

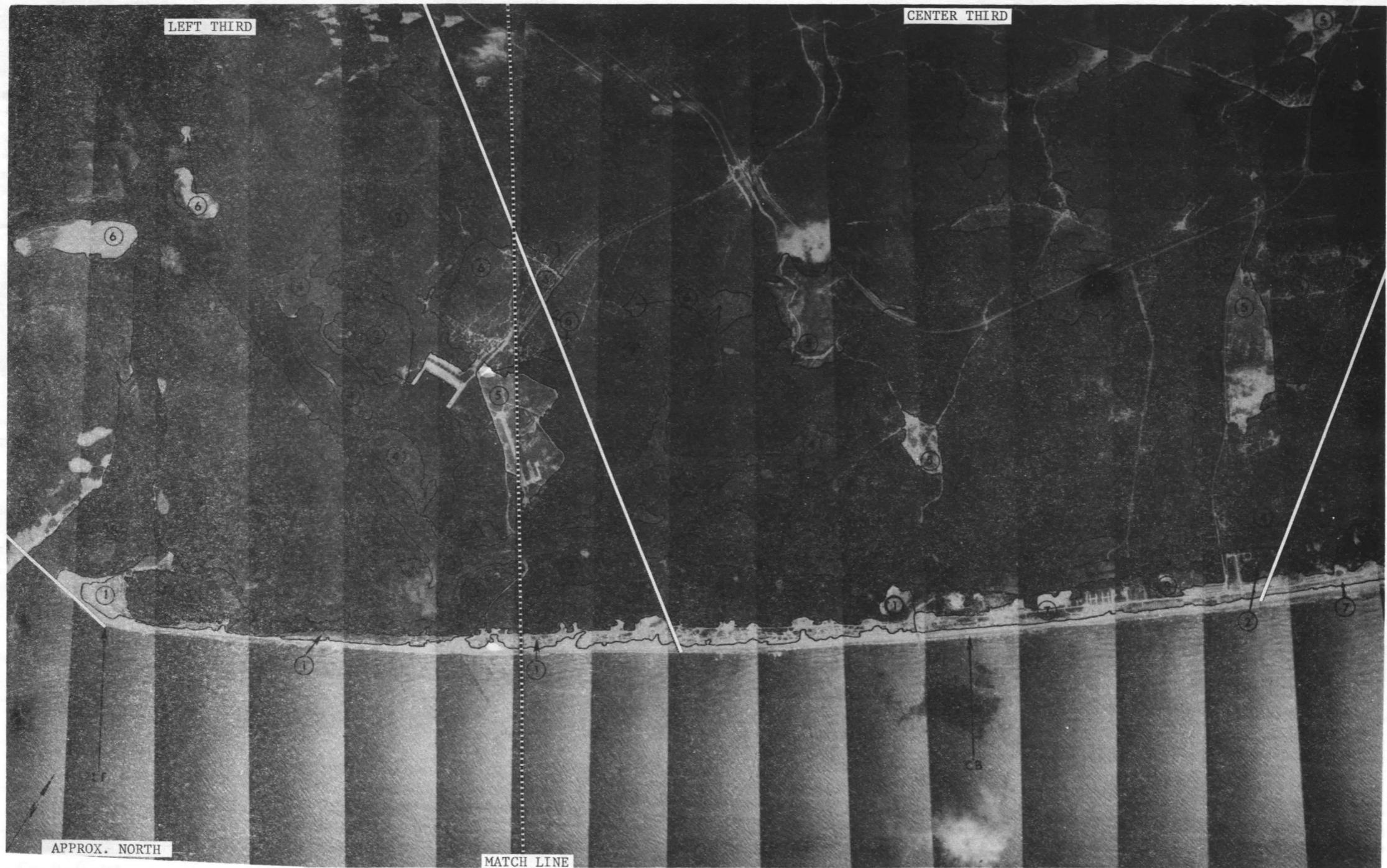
E9 - LOCATED APPROXIMATELY 2200 METERS RIGHT OF BEACH CENTER. IT IS AN UNSURFACED GRADED EARTH ROAD APPROXIMATELY 2 METERS WIDE.

P. SURF AND TIDAL INFORMATION: ONSLOW BEACH HAS SPILLING WAVES THAT APPROACH THE BEACH ON A DIRECT ANGLE. FOR SPECIFIC AND DETAILED TIDAL DATA, CONTACT WEATHER SERVICES, MCAS (H), NEW RIVER.

Q. REMARKS: ALL MEASUREMENTS AND DISTANCES ARE APPROXIMATE. MATTING IS RECOMMENDED WHEN BEACH IS DRY. CROSS-COUNTRY MOVEMENT FOR TRACKED AND WHEELED VEHICLES IS RESTRICTED TO MAIN ROADS AND EXISTING TRAILS DUE TO GEOGRAPHIC AND ENVIRONMENTAL RESTRAINTS.

BEACH ILLUSTRATION SHEET

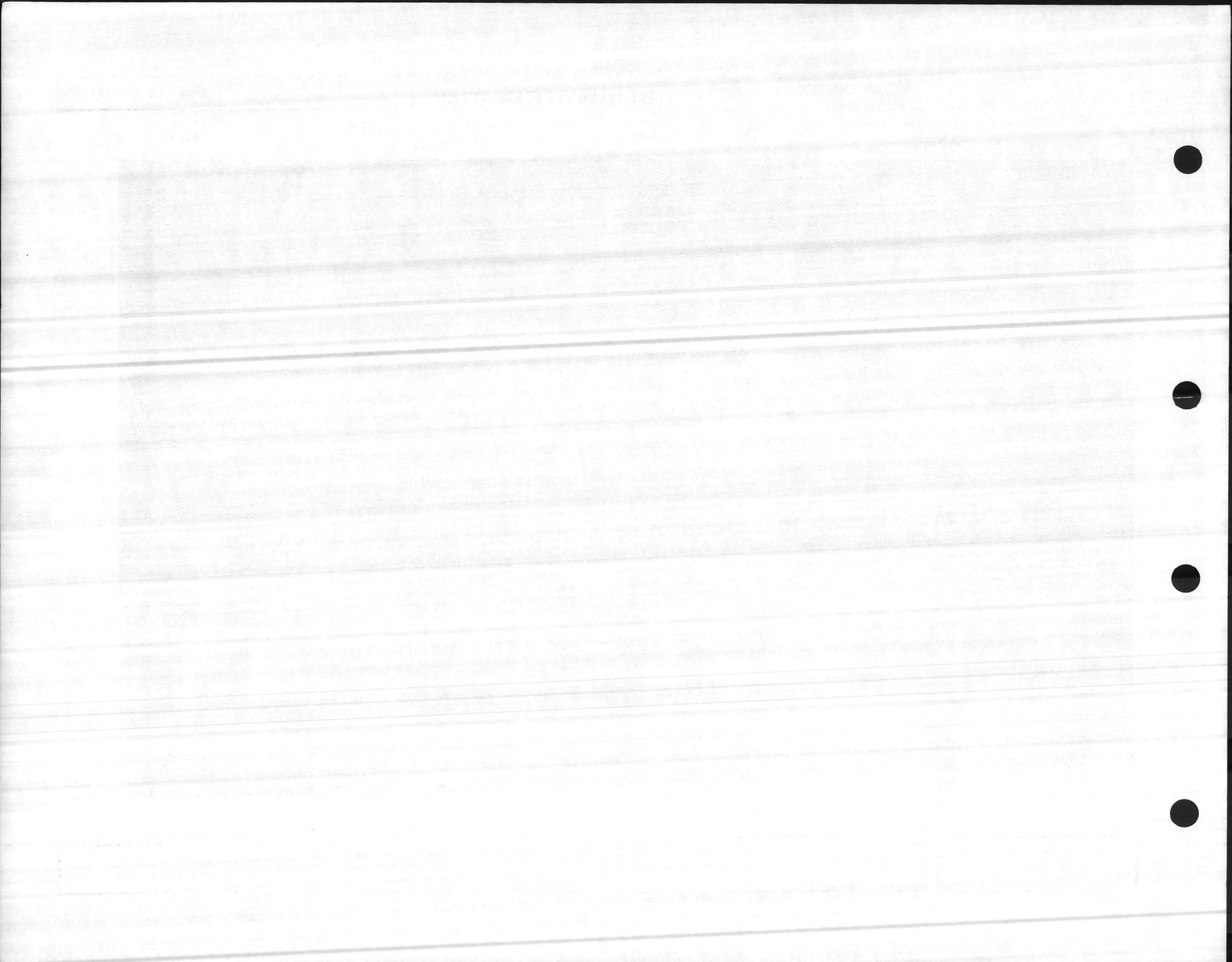
DATE OF PHOTOGRAPHY: 04 AUG 84



GRAPHICS 1

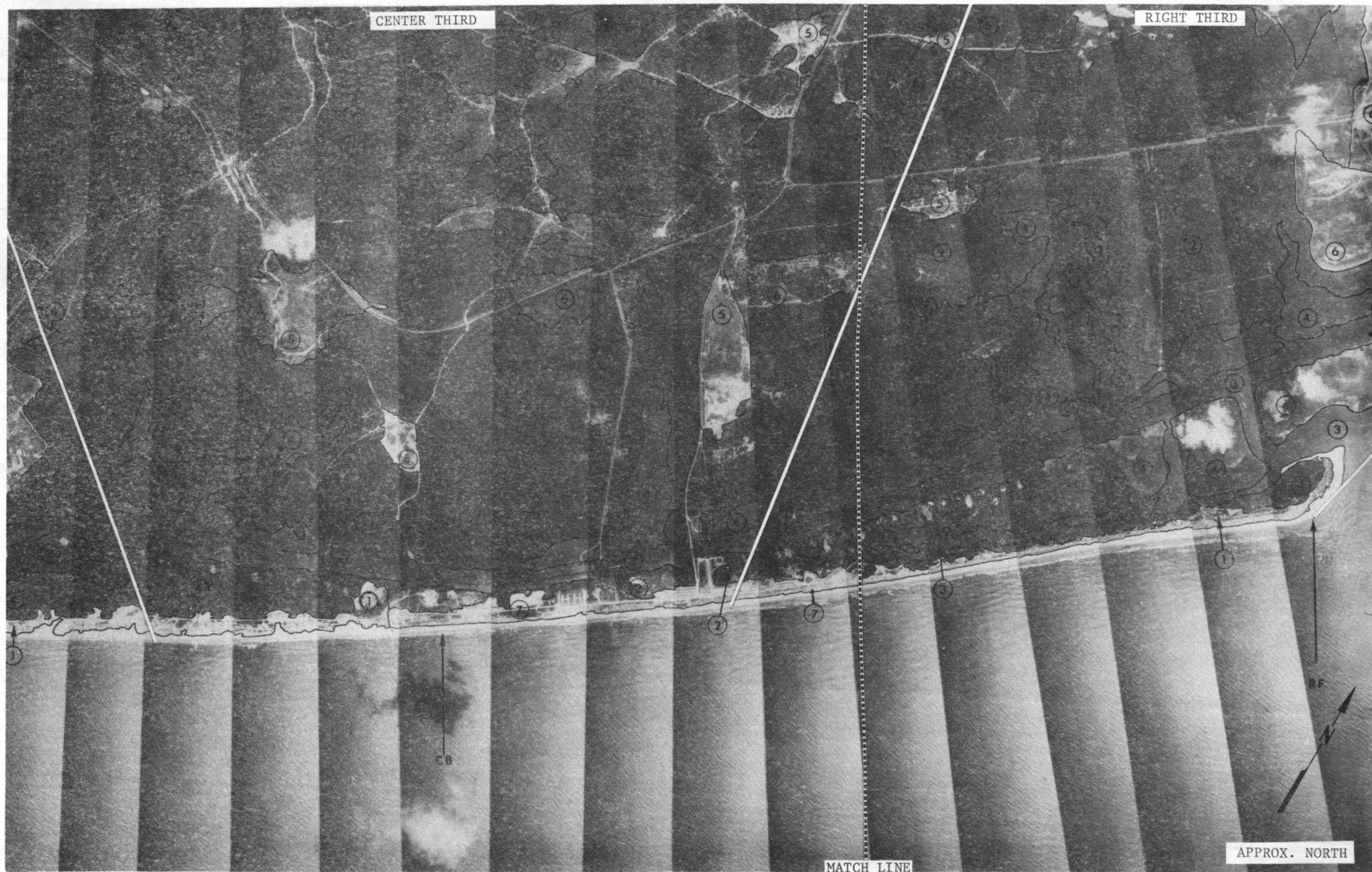
COUNTRY UNITED STATES	RECORD ID 0410LM0060	TDI CAT 70550
NAME ONSLOW BEACH	LAT/LONG 343340N0771700W	

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV



BEACH ILLUSTRATION SHEET

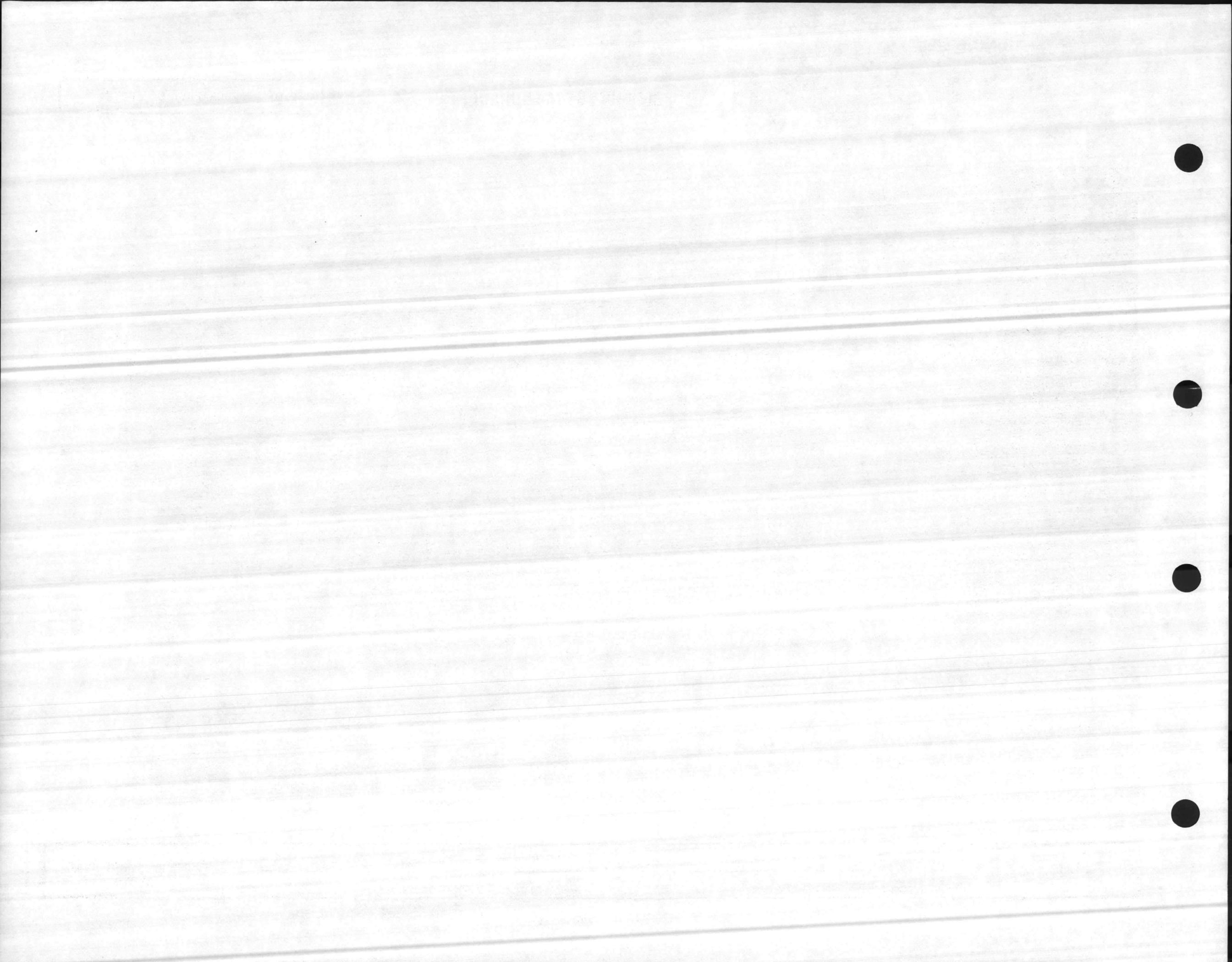
DATE OF PHOTOGRAPHY: 04 AUG 84



GRAPHICS 2

COUNTRY UNITED STATES	RECORD ID 0410LM0060	TDI CAT 70550
NAME ONSLOW BEACH	LAT/LONG 343340N0771700W	

PRODUCED BY: 2D FIU
FOR: 2D MARDIV



BEACH ILLUSTRATION SHEET

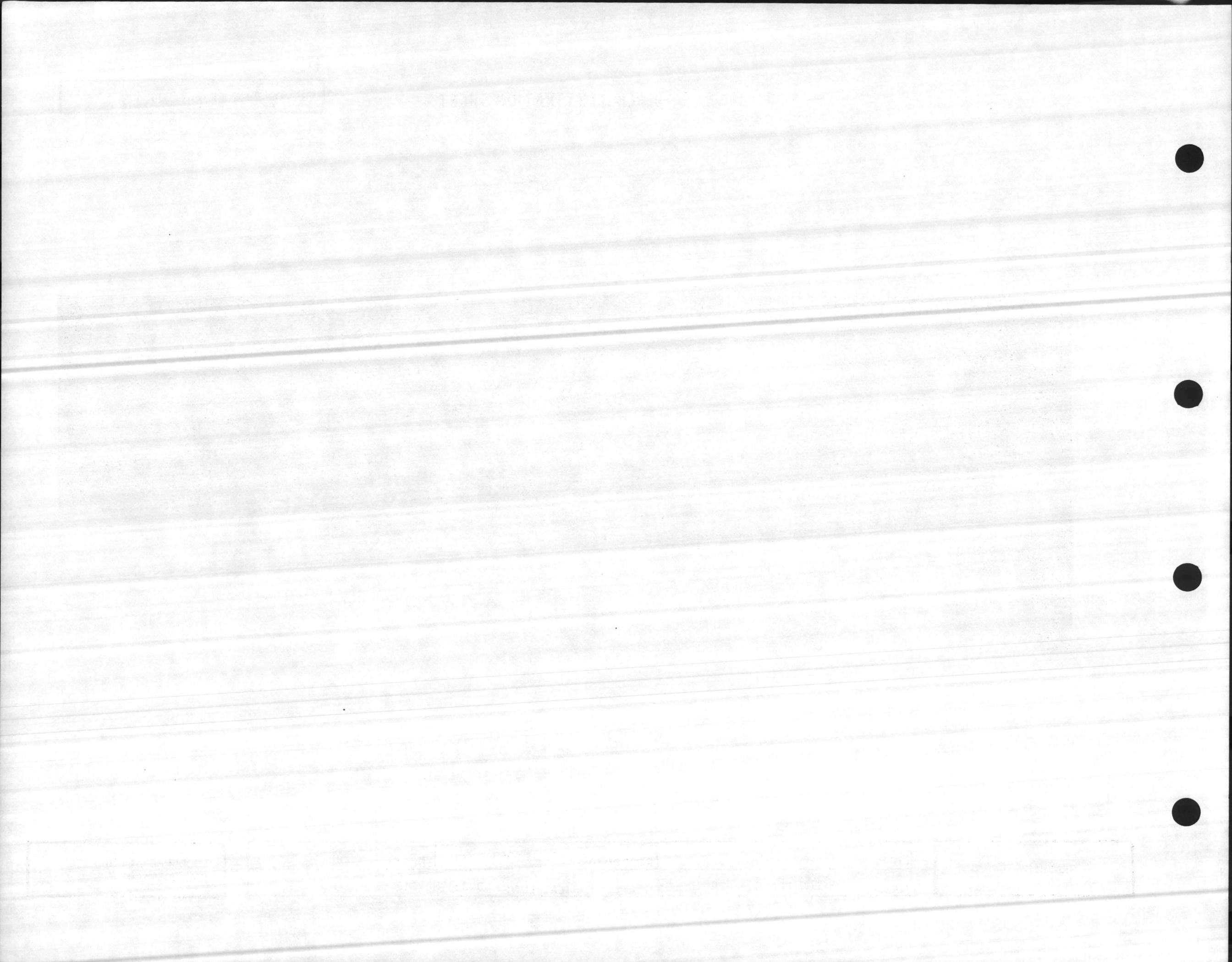
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GRAPHICS 3

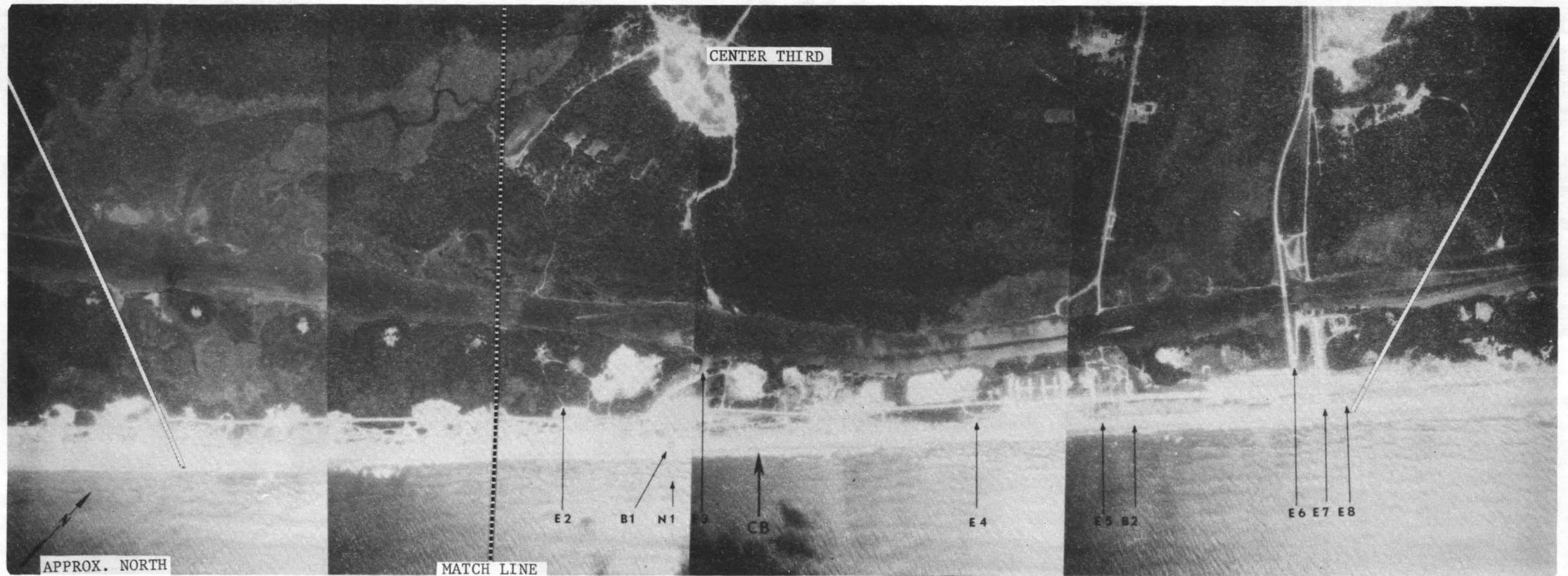
COUNTRY	UNITED STATES	RECORD ID	0410LM0060	TDI CAT	70550
NAME	ONSLOW BEACH	LAT/LONG	343340N0771700W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV



BEACH ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



GRAPHICS 4

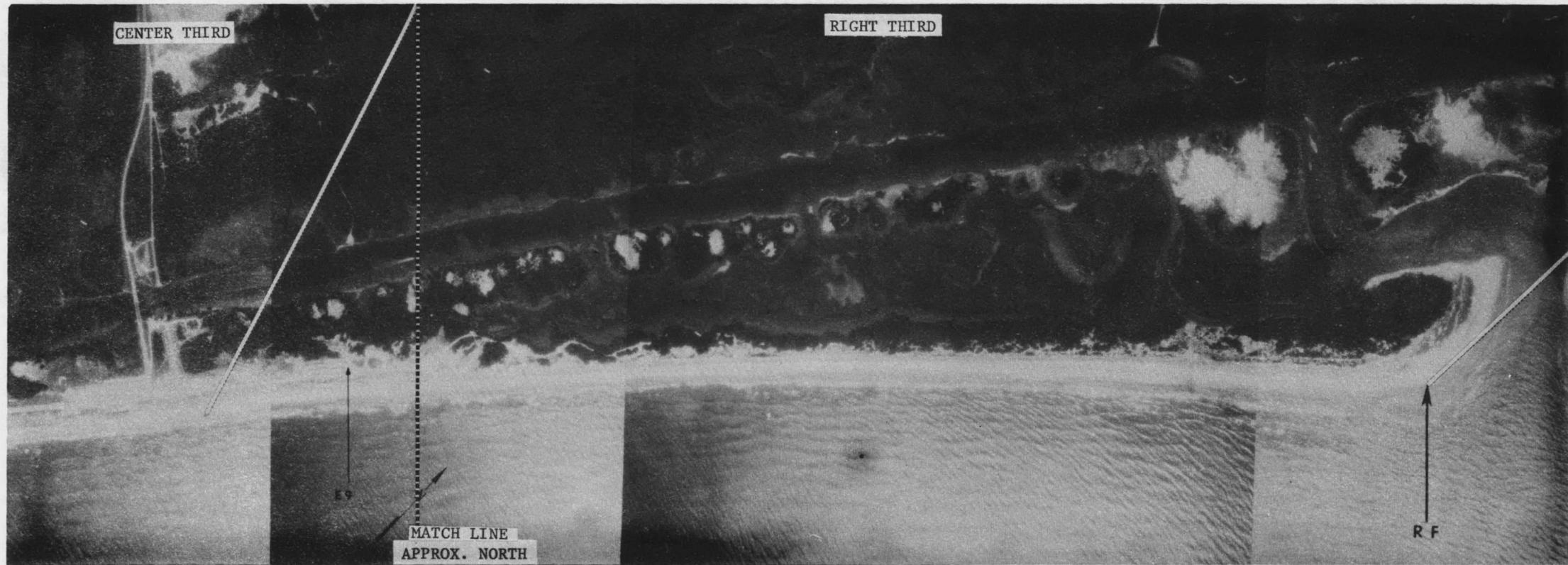
COUNTRY	UNITED STATES	RECORD ID	0410LM0060	TDI CAT	70550
NAME	ONSLow BEACH	LAT/LONG	343340N0771700W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV



BEACH ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



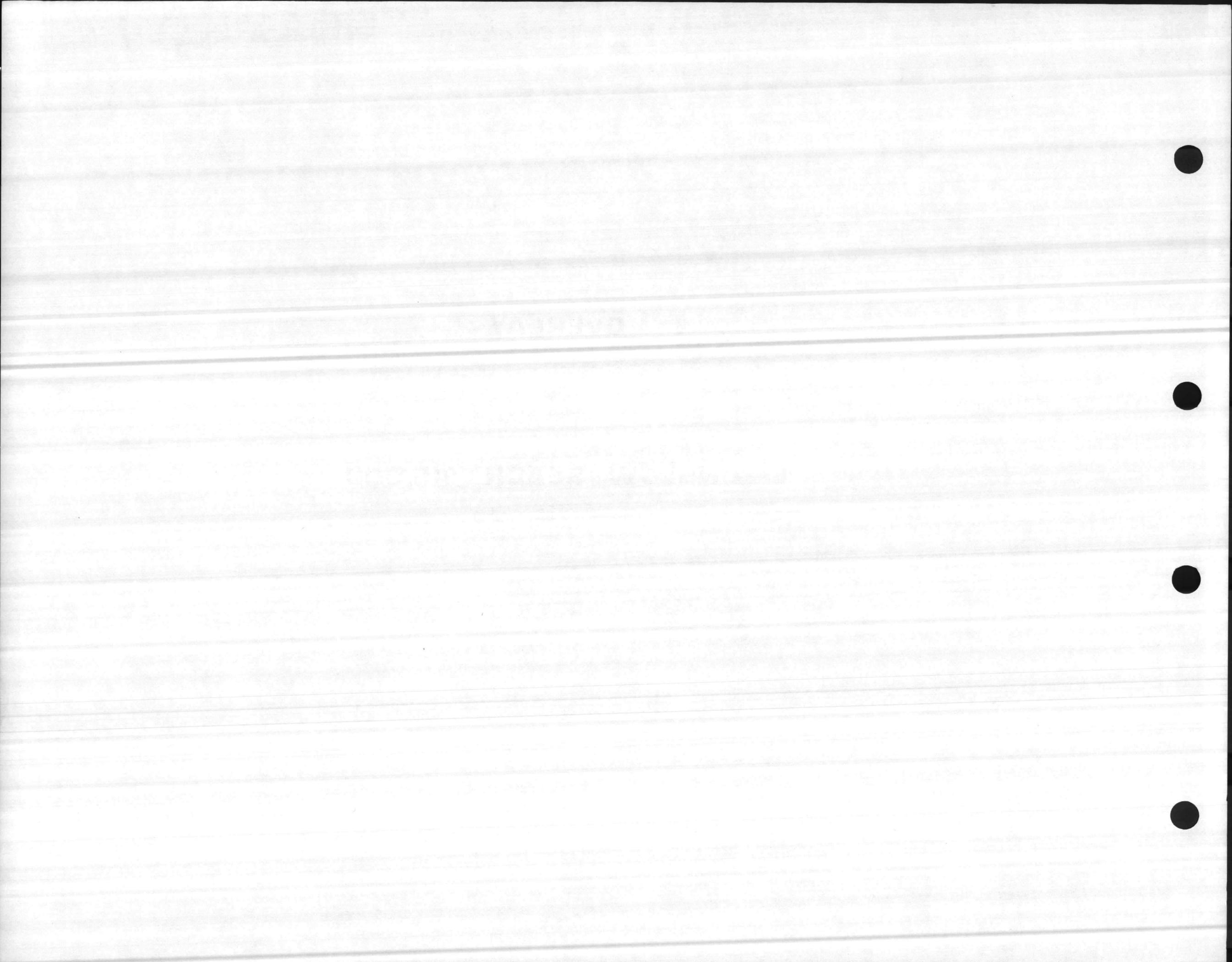
GRAPHICS 5

COUNTRY	UNITED STATES	RECORD ID	0410LM0060	TDI CAT	70550
NAME	ONSLOW BEACH	LAT/LONG	343340N0771700W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV

OVERLAY

1. ONSLOW BEACH 1:5,000



ONSHOW BEACH

287600

288200

288800

289400

290000

3827000

3827000

3826400

3826400

3826800

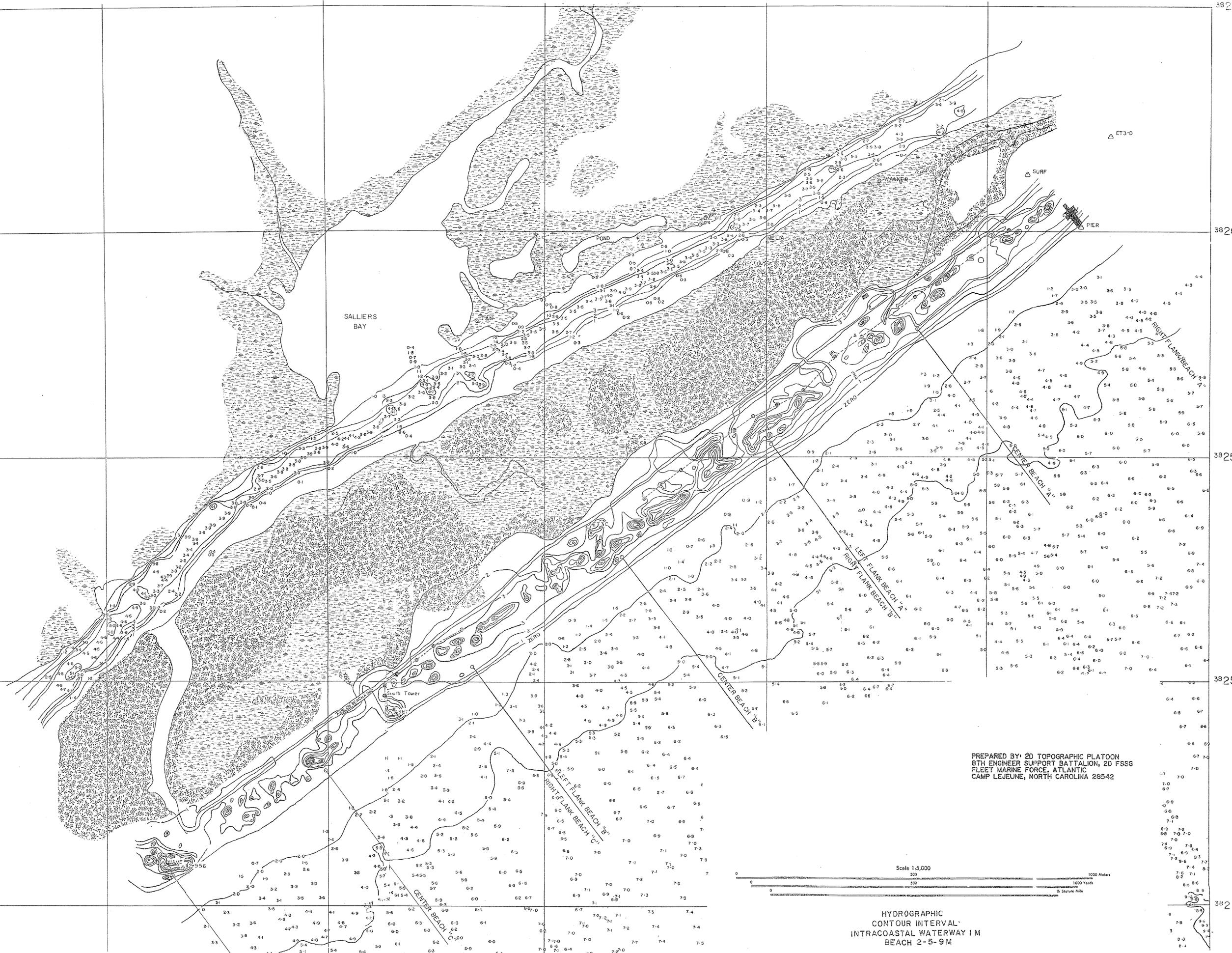
3826800

3826200

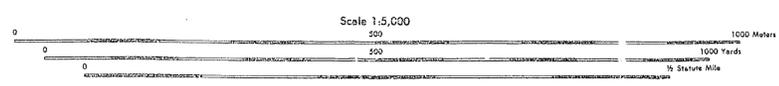
3826200

3825600

3825600



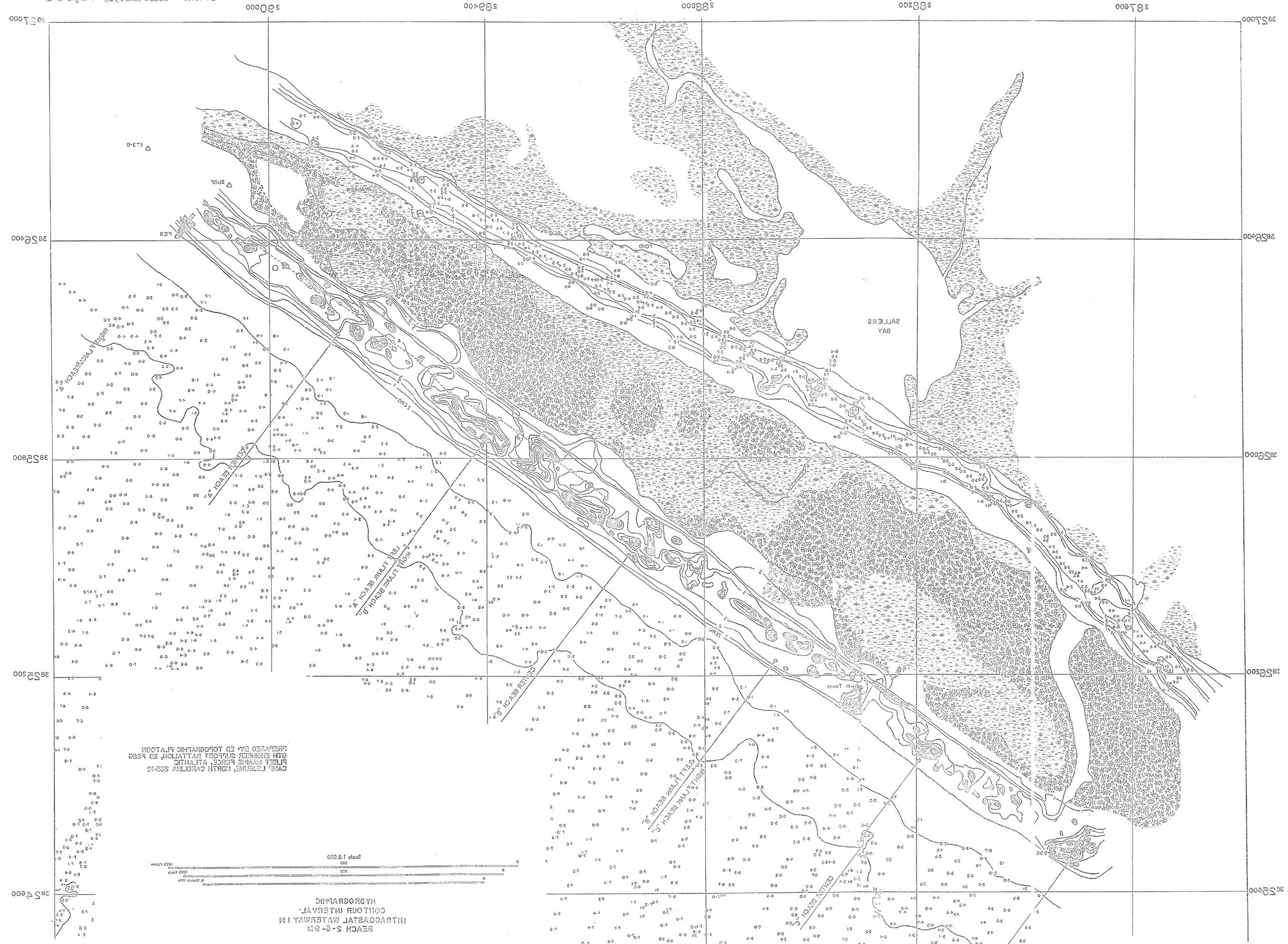
PREPARED BY: 2D TOPOGRAPHIC PLATOON
 8TH ENGINEER SUPPORT BATTALION, 2D FSSG
 FLEET MARINE FORCE, ATLANTIC
 CAMP LEJEUNE, NORTH CAROLINA 28342



HYDROGRAPHIC
 CONTOUR INTERVAL
 INTRACOASTAL WATERWAY 1 M
 BEACH 2-5-9 M

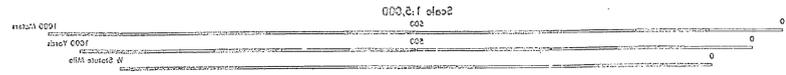
ONSLOW BEACH

CAMP LEVELING 15,000



PREPARED BY 3D TOPOGRAPHIC PLATOON
 8TH ENGINEER SUPPORT BATTALION, 3D FSBG
 FLEET MARINE FORCE, ATLANTIC
 CAMP LEVELING NORTH CAROLINA 20042

HYDROGRAPHIC
 CONTOUR INTERVAL
 INTRACASTAL WATERWAY I
 BEACH 2-8-01







CHAPTER 6

TRANSSHIPMENT POINTS

STATION INFORMATION

SECTION 1

PORT FACILITIES

SECTION 1

PORT FACILITIES

PORT FACILITIES

1. PURPOSE. THE PURPOSE OF THIS STUDY IS TO FAMILIARIZE TACTICAL UNIT COMMANDERS WITH THE FACILITIES, CAPABILITIES AND CAPACITIES OF THE MAJOR DEEP WATER PORTS AVAILABLE FOR THE MOVEMENT OF PERSONNEL AND EQUIPMENT FROM MCB, CAMP LEJEUNE.
2. DESCRIPTION. MARINE CORPS BASE CAMP LEJEUNE IS LOCATED 40 MILES WEST OF BOTH MOREHEAD CITY AND RADIO ISLAND PORTS, AND 52 MILES NORTHEAST OF WILMINGTON PORT. THIS PROXIMITY TO PORT FACILITIES ENABLES UNIT COMMANDERS TO RAPIDLY DEPLOY PERSONNEL AND EQUIPMENT BY SEA. THESE PORTS HAVE BOTH STAGING AND TRANSIT SHEDS THAT CAN BE USED FOR TEMPORARY BILLETING.

A. MOREHEAD CITY PORT FACILITY.

(1) MAP REFERENCE: SHEET 5653 II
SERIES V742
EDITION CMPSPC 06

(2) B.E. NO./TDI CATEGORY CODE: 0410LM0070/47400

(3) LOCATION: GEO: 344300N0762400W UTM: 18SUP4641

(4) HELICOPTER LANDING AREA: HELICOPTER LANDING AREA ANNOTATION 15

(5) FACILITIES/STORAGE AREAS: ANNOTATIONS 3, 4 AND 7 TRANSIT BUILDINGS*

(TOTAL AREA 342,500 SQ FT)

ANNOTATIONS 5 AND 17 POL STORAGE

ANNOTATIONS 6 AND 9 WAREHOUSES (TOTAL AREA 496,

550 SQ FT)

ANNOTATION 13 ASPHALT BY-PRODUCT

ANNOTATIONS 14, 17, 18, 20 AND 21 OPEN STORAGE

PILES (TOTAL AREA 14 ACRES)

ANNOTATION 19 HARBOR MASTER BUILDING

* STAGING AREA TO THE NORTH AND SOUTH OF ANNOTATION 7

(6) CAPACITY: 3,000,000 TONS PER YEAR

3,000 TONS PER HOUR

106,000 TONS STORAGE (OPEN AND COVERED STORAGE)

(7) BERTHING: ANNOTATION 1 QUAY (LENGTH 792.5M)

ANNOTATION 8 QUAY (LENGTH 411.5M)

ANNOTATION 10 QUAY (LENGTH 305M USED FOR DEEP WATER BULK HANDLING

FACILITY)

(8) DRAFT CAPABILITIES: CHANNEL INTO PORT 40 FT

EAST TURNING BASIN 40 FT

WEST TURNING BASIN 35 FT

(9) MECHANICAL HANDLING: ANNOTATION 2 JIB CRANE ON TRACKS (CAPACITY 115 TONS)

ANNOTATION 11 TRANSSHIPMENT CRANE** (CAPACITY 40 LONG

TONS)

ANNOTATION 12 CONVEYER SYSTEM

ANNOTATION 16 JIB CRANE (CAPACITY 115 TONS)

** ANNOTATION 11 IS NO LONGER AT THIS FACILITY. IT HAS BEEN MOVED TO
WILMINGTON PORT FACILITY

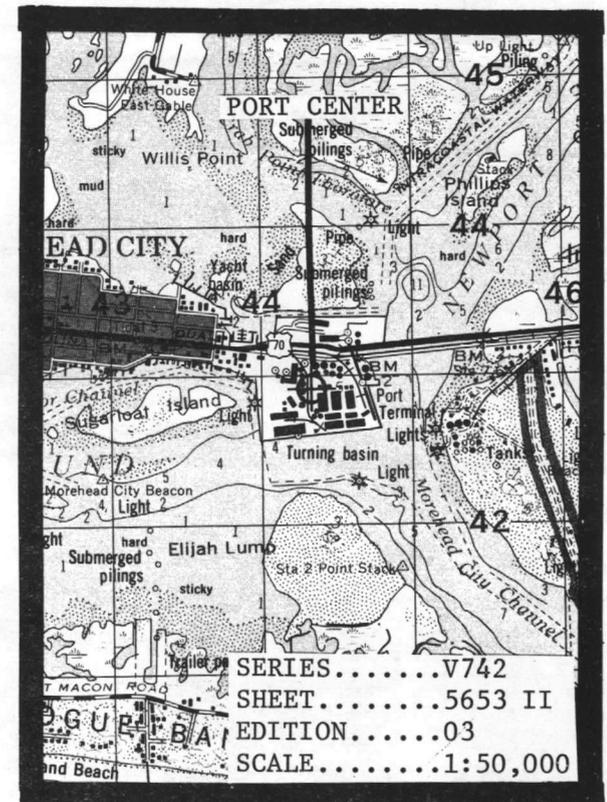
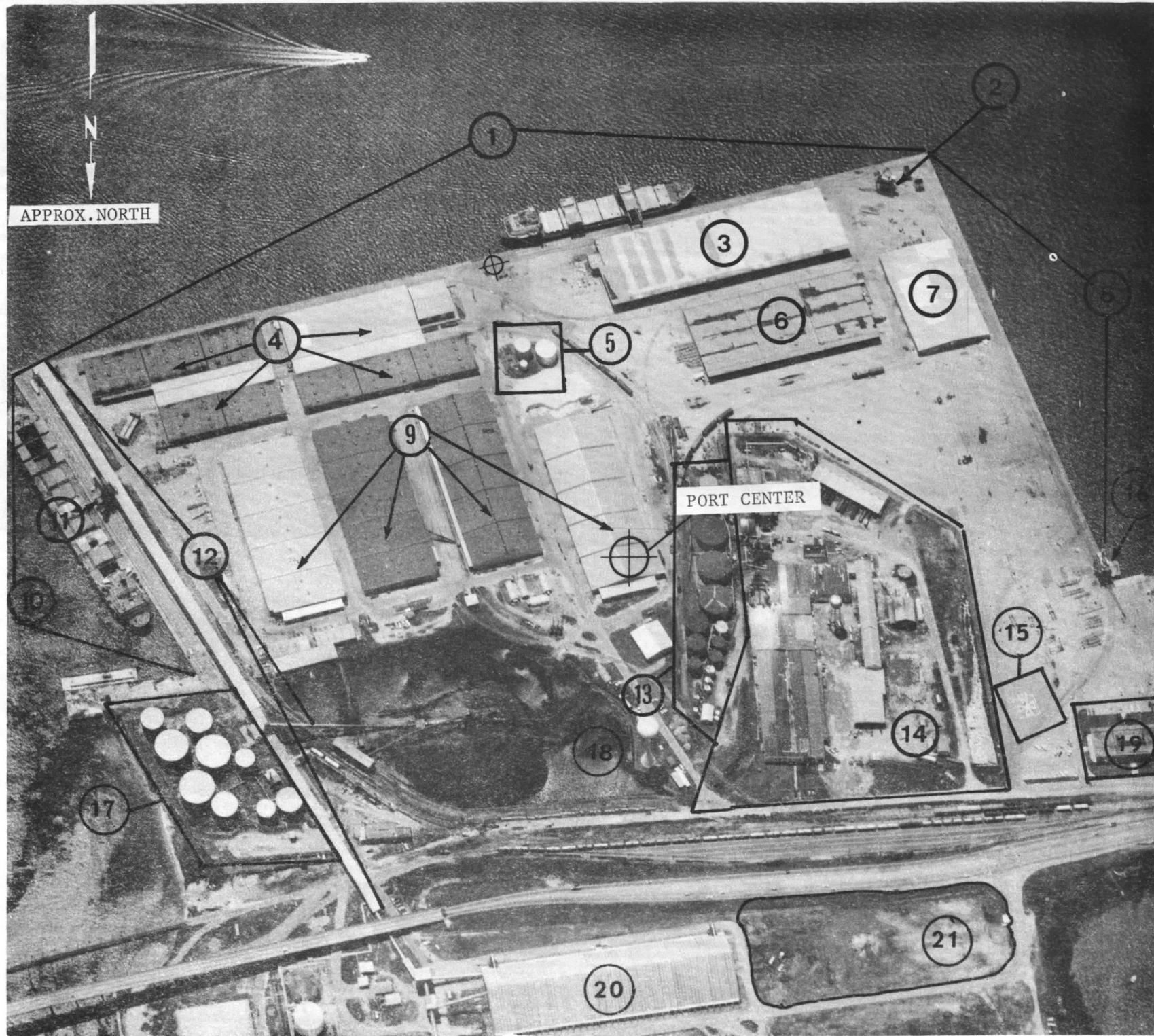
(10) TIDAL DATA: LOW MEAN -2.9 FT

HIGH MEAN +3.5 FT

(11) REMARKS: THIS FACILITY HAS 24 HOUR SECURITY AND ALL GATES ARE MANNED.
THE HARBOR IS DREDGED ONCE A YEAR WITH NO RESTRICTIONS TO SHIPPING TRAFFIC
DURING DREDGING. THERE ARE NO OBSTRUCTIONS WITHIN TRAFFIC LANES AND IN
THE PORT FACILITY. THE PORT HAS FORKLIFTS, TRACTORS, TRAILERS AND A PUBLIC
CERTIFIED SCALE.

PORT ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 01 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0070	TDI CAT	47400
NAME	MOREHEAD CITY PORT FACILITY	LAT/LONG	344300N0762400W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

B. WILMINGTON PORT FACILITY.

(1) MAP REFERENCE: SHEET 5452 II

SERIES V742

EDITION DMATC 07

(2) B.E. NO./TDI CATEGORY CODE: 0410LM0071/47400

(3) LOCATION: GEO: 341300N0792330W UTM: 18STN7899

(4) HELICOPTER LANDING AREA: HELICOPTER LANDING AREA ANNOTATION 6

(5) FACILITIES/STORAGE AREAS: ANNOTATION 14 STEEL COMPANY

ANNOTATIONS 10 AND 13 WAREHOUSES (TOTAL AREA

1,132,582 SQ FT)

ANNOTATIONS 7 AND 9 TRANSIT SHEDS (TOTAL AREA

410,000 SQ FT)

ANNOTATIONS 6, 11, AND 12 OPEN STORAGE/STAGING

AREA (TOTAL AREA 72 ACRES)

ANNOTATION 15 R/R CAR STORAGE (TOTAL 370 CARS)

(6) CAPACITY: 3 TO 6 MILLION METRIC TONS PER YEAR

10 TO 16 THOUSAND TONS PER HOUR

STORAGE CAPACITY FLUCTUATES

(7) BERTHING:* ANNOTATION 1 QUAY (LENGTH 300M)

ANNOTATION 3 QUAY (LENGTH 547M)

ANNOTATION 5 QUAY (LENGTH 230M)

* BERTHING AREAS ANNOTATED TOTAL 1077M. THE PORT SERVICE DIRECTORY

NOTES THAT THERE IS 1840M OF BERTHING AREA. WITHIN THIS STUDY, ONLY THOSE

AREAS USED BY U. S. NAVAL VESSELS WERE ANNOTATED

(8) DRAFT CAPABILITIES: CHANNEL AT LOW MEAN IS 38 FT, WHARF CAPABILITY 38 FT

(9) MECHANICAL HANDLING: ANNOTATION 2 TWO (2) CONTAINER CRANES (CAPACITY 40

LONG TONS)

ANNOTATION 4 GANTRY CRANE (CAPACITY 115 TONS)

ANNOTATION 8 GANTRY CRANE (CAPACITY 225 TONS)

NOTE: 2 MOBILE CRANES (140 TON AND 5 TON) AND 2 GANTRY CRANES ARE LOCATED
AT THIS FACILITY

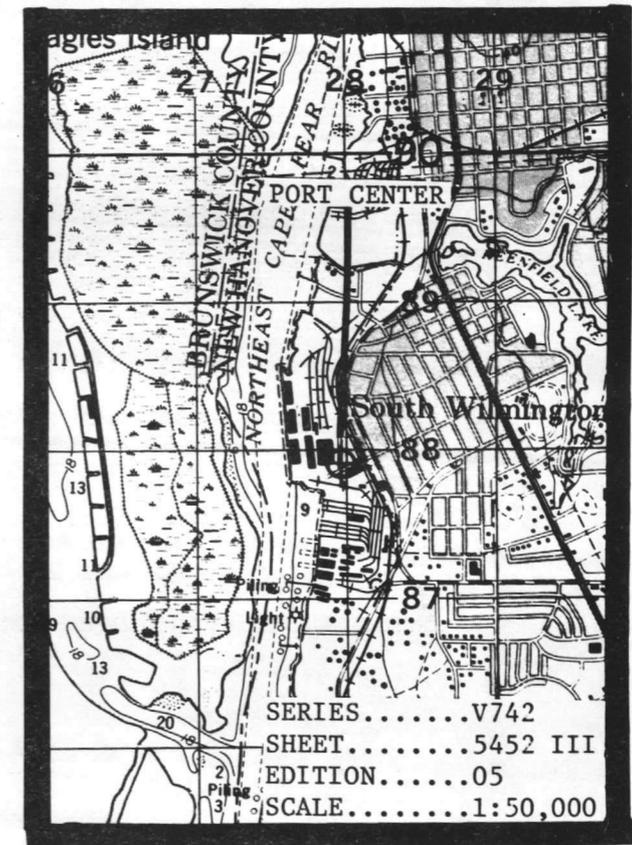
(10) TIDAL DATA: LOW MEAN -2.5 FT

HIGH MEAN +3.0 FT

(11) REMARKS: ACCESS TO THE PORT FROM THE SEA MUST BE GUIDED BY PILOT
BOAT UP A 12 MILE STRETCH OF RIVER. PORT SECURITY FORCES ON DUTY AT
ALL TIMES.

PORT ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 01 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0071	TDI CAT	46400
NAME	WILMINGTON PORT FACILITY	LAT/LONG	341300N0792330W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

C. RADIO ISLAND.

(1) MAP REFERENCE: SHEET 5653 II

SERIES V742

EDITION CMPSFC 06

(2) B.E. NO./TDI CATEGORY CODE: 0410LM0072/47400

(3) LOCATION: GEO: 344230N0764045W UTM: 18SUP4462

(4) HELICOPTER LANDING AREA: HELICOPTER LANDING AREA ANNOTATION 3

(5) FACILITIES/STORAGE AREAS: ANNOTATIONS 2, 3 AND 4 OPEN STORAGE/STAGING
AREA

ANNOTATION 5 BLOCK HOUSE

(6) CAPACITY: UNDETERMINED

(7) BERTHING: ANNOTATION 1 WHARF* (LENGTH 110M)

*3 LST'S PERPENDICULAR TO WHARF, BETWEEN DOLPHINS

(8) DRAFT CAPABILITES: 18 FT, LOW MEAN

(9) MECHANICAL HANDLING: NONE

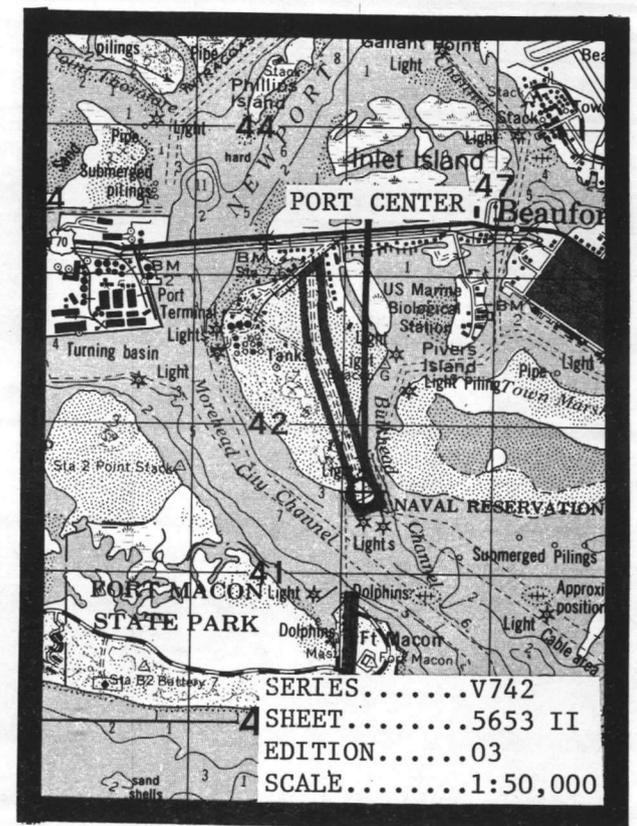
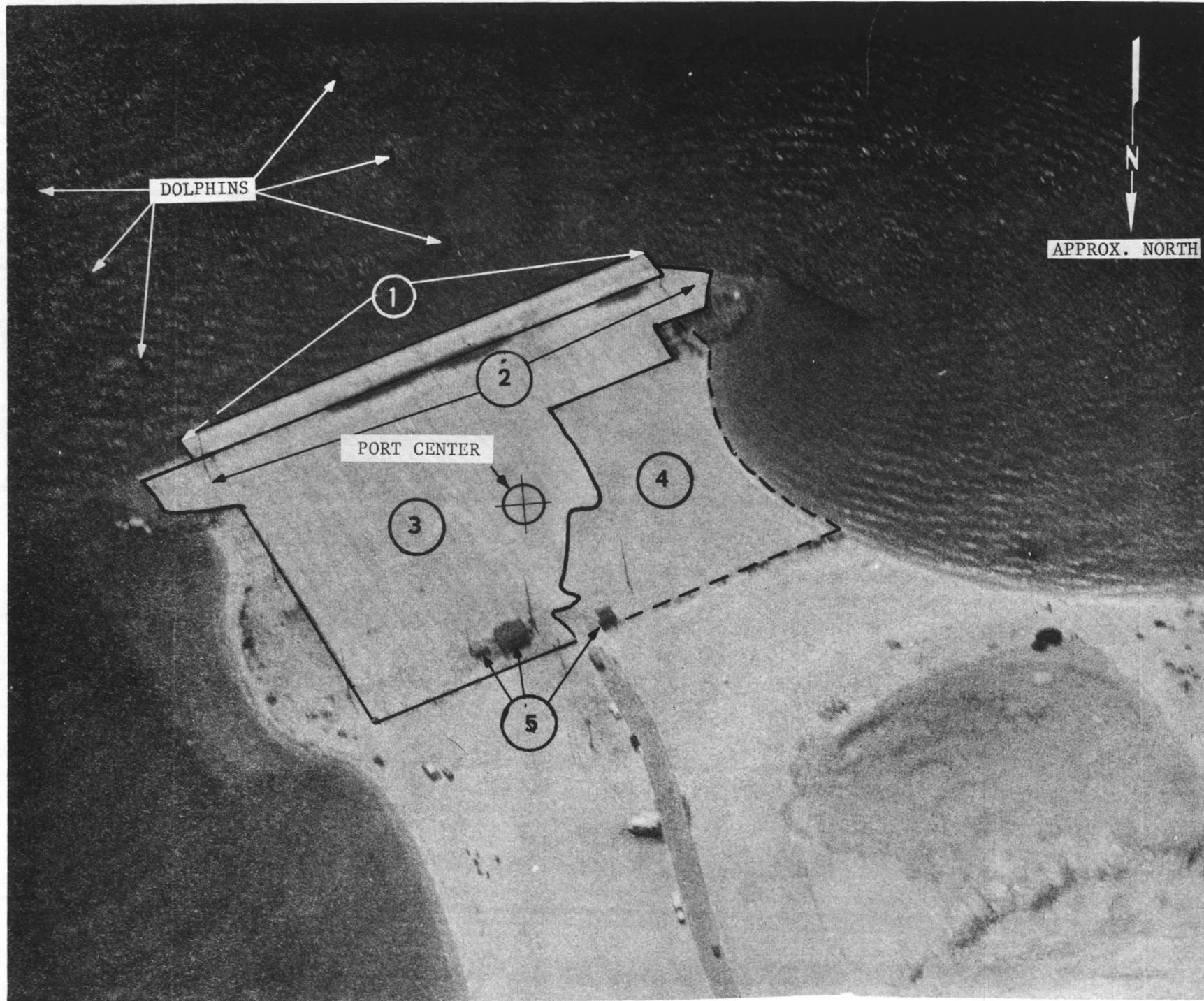
(10) TIDAL DATA: LOW MEAN -2.9 FT

HIGH MEAN +3.5 FT

(11) REMARKS: RADIO ISLAND IS ACCESSABLE FROM MOREHEAD CITY BY BRIDGE VIA
US 70. THE AREA ANNOTATED IS OWNED BY THE U. S. GOVERNMENT AND IS ONLY USED
FOR EMBARKATION AND DEBARKATION OF TROOPS AND EQUIPMENT. THE BRIDGE CANNOT
SUPPORT HEAVY ARMORED VEHICLES. A FLOATING RAIL SYSTEM IS USED FOR ARMOR
CROSSING. NO MECHANICAL HANDLING IS AVAILABLE WITHIN THE PORT AREA.

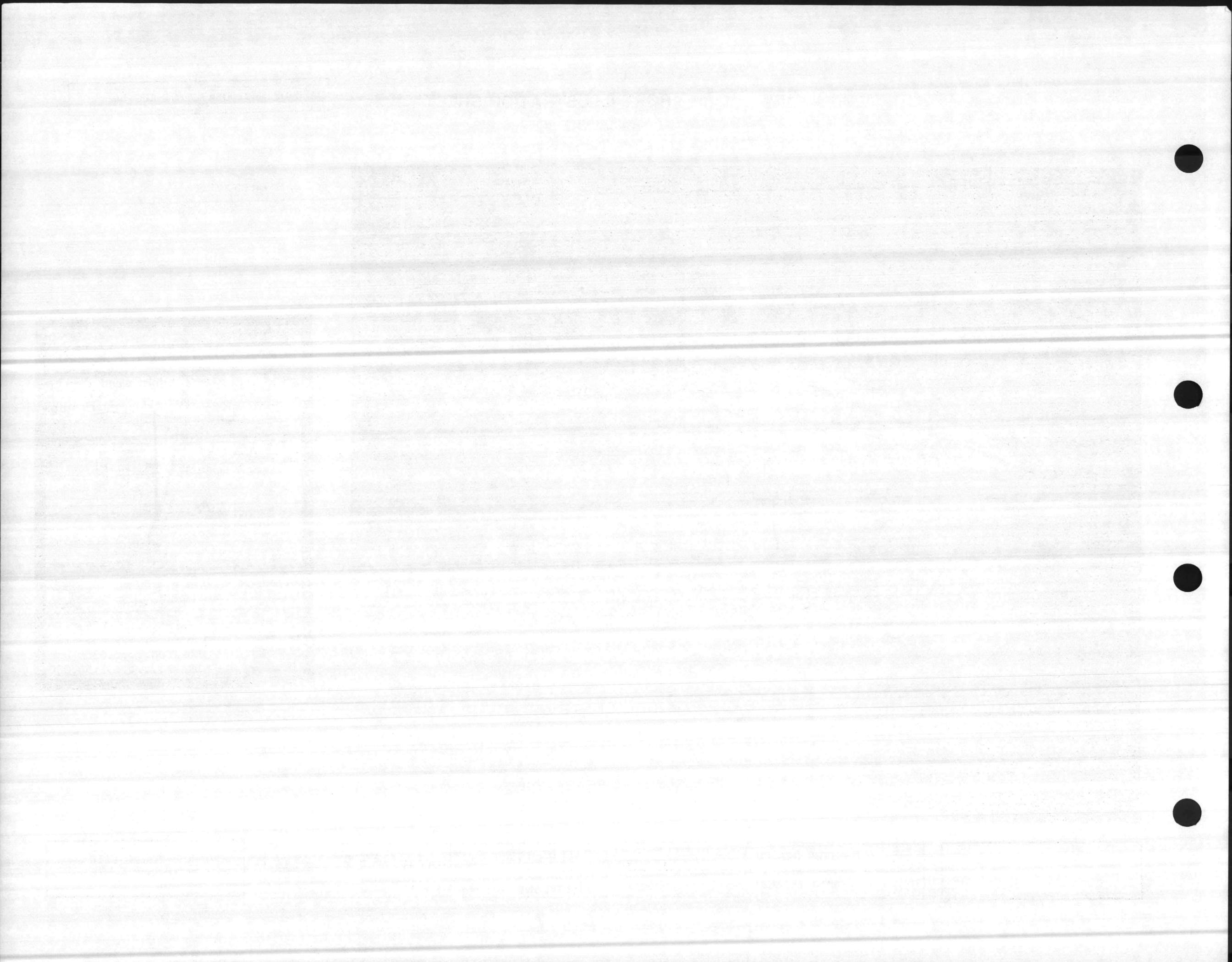
PORT ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 01 AUG 84



	COUNTRY	UNITED STATES	RECORD ID	0410LM0072	TDI CAT	47400
	NAME	RADIO ISLAND	LAT/LONG	344230N0764045W		

PRODUCED BY: 2D FIIU
FOR: 2D MARDIV



SECTION 2

AIRFIELDS

MCAS CHERRY POINT

1. PURPOSE. THIS AIRFIELD STUDY IS DESIGNED TO PROVIDE THE TACTICAL COMMANDER WITH AN ORIENTATION TO THE AIRFIELD AND ITS MAIN FUNCTIONAL COMPONENTS AS THEY RELATE TO TROOP AND EQUIPMENT TRANSPORT.
2. DESCRIPTION. MCAS, CHERRY POINT IS THE HOME OF THE HEADQUARTERS, SECOND MARINE AIRCRAFT WING AND IS LOCATED 69 MILES NORTH NORTHEAST OF WILMINGTON PORT FACILITY, 15 MILES NORTH NORTHWEST OF MOREHEAD CITY PORT FACILITY AND 31 MILES NORTH NORTHEAST OF CAMP LEJEUNE. IT PROVIDES 35,000 LINEAR FEET OF RUNWAY. WITHIN THE SCOPE OF THIS STUDY, THE PRIMARY MISSION OF CHERRY POINT IS TO PROVIDE A MAJOR STAGING AREA AND CLEARING POINT FOR TROOP AND EQUIPMENT TRANSPORT. THE AIRFIELD IS CAPABLE OF SUPPORTING A MAF-SIZED MOVEMENT AND CAN ACCEPT ALL TRANSPORT AIRCRAFT CURRENTLY IN THE U. S. INVENTORY.
3. AIRFIELD DATA.
 - A. NAME: MCAS, CHERRY POINT, N. C. (CUNNINGHAM FIELD)
 - B. B.E. NUMBER/TDI CATEGORY CODE: 0410LM0080/80070
 - C. LOCATION: GEO: 345400N0765200W UTM: 18SUP28006350
 - D. MAP REFERENCE: SHEET 5653 IV, SERIES V742, EDITION DMATC 03, SCALE 1:50,000
 - E. AIRFIELD CAPABILITY: CAPABLE OF HANDLING ALL U. S. CIVIL AND MILITARY AIRCRAFT
 - F. AIRFIELD STATUS: OPERATIONAL
 - G. AIRFIELD TYPE: MILITARY
 - H. AIRFIELD PRINCIPAL USE: TACTICAL GROUND-ATTACK AND TRANSPORT AIRCRAFT

I. ELEVATION: 29 FEET ABOVE MEAN SEA LEVEL (AMSL)

J. NUMBER OF RUNWAYS: 4

K. RUNWAY DIMENSIONS AND CAPACITIES:

<u>RUNWAY</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>OVERRUN</u>	<u>MAXIMUM CAPACITY</u>
RWY 5R/23L	8183'	200'	2500'	884,000 LBS.
RWY 5L/23R	9100'	200'	1500'	1,560,000 LBS.
RWY 14R/32L	8400'	200'	1500'	924,000 LBS.
RWY 14L/32R	8890'	200'	500'	1,301,000 LBS.

L. RUNWAY SURFACE: ASPHALT

M. RUNWAY SURFACE CONDITIONS: GOOD

N. NUMBER OF PARKING APRONS: 5

O. NUMBER OF HANGERS: 10

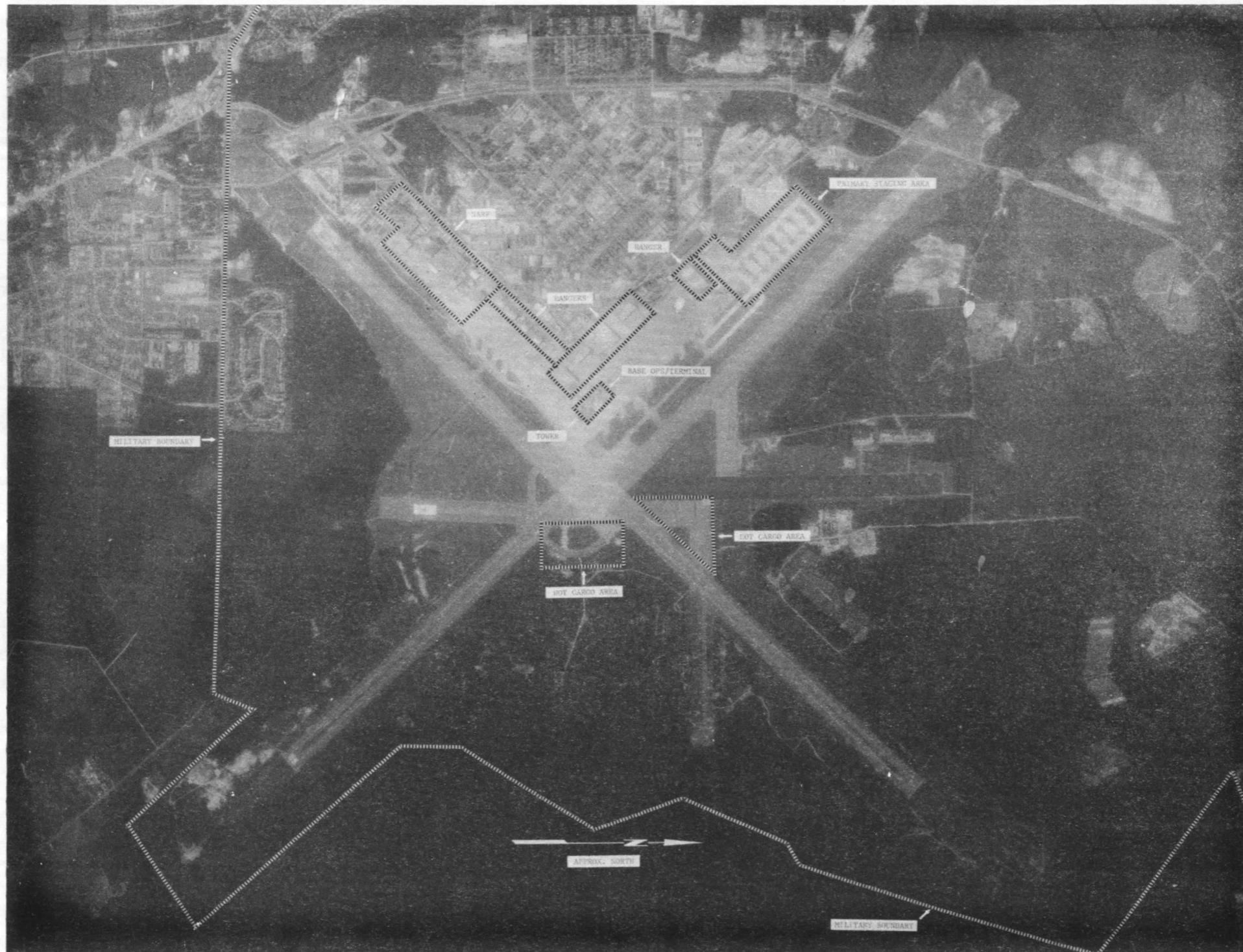
P. MEDICAL FACILITIES AVAILABLE: YES

Q. TOWER/TERMINAL LOCATION: MCAS, CHERRY POINT TOWER AND TERMINAL ARE CO-LOCATED IN A BUILDING APPROXIMATELY 400 METERS EAST OF THE CENTER OF THE 4 RUNWAYS.

R. MAJOR TRANSPORTATION ROUTES: MCAS, CHERRY POINT IS SERVICED BY U. S. HIGHWAY 70 WHICH EXTENDS SOUTH SOUTHEAST TO MOREHEAD CITY AND THE OUTER BANKS, AND NORTH NORTHWEST THROUGH NEW BERN INTO THE INTERSTATE HIGHWAY SYSTEM. ACCESS CAN ALSO BE GAINED VIA NC HIGHWAY 101 WHICH EXTENDS SOUTH SOUTHEAST TO BEAUFORT, NC AND WEST TO HAVELOCK AND RURAL AREAS BEYOND. CHERRY POINT IS ALSO SERVICED BY THE NORFOLK SOUTHERN AND THE CAMP LEJEUNE RAILROADS.

AFLD ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 11 NOV 83



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COUNTRY	UNITED STATES	RECORD ID	0410LM0080	TDI CAT	80070
NAME	MCAS CHERRY POINT	LAT/LONG	3454N07653W		

PRODUCED BY: 2D FIU
FOR: 2D MARDIV

MCAS (H) NEW RIVER

1. PURPOSE. THIS AIRFIELD STUDY IS DESIGNED TO PROVIDE THE TACTICAL COMMANDER WITH AN ORIENTATION TO THE AIRFIELD AND ITS MAIN FUNCTIONAL COMPONENTS AS THEY RELATE TO TROOP AND EQUIPMENT TRANSPORT.

2. DESCRIPTION. MCAS (H), NEW RIVER IS THE MAIN AIR BASE FOR ROTARY WING AIRCRAFT AND FIXED WING OBSERVATION AIRCRAFT ASSETS ORGANIC TO THE SECOND MARINE AIRCRAFT WING. IT IS LOCATED 41 MILES NORTH NORTHEAST OF WILMINGTON PORT FACILITY, 40 MILES WEST OF MOREHEAD CITY PORT FACILITY, AND IS CONTAINED WITHIN THE CAMP LEJEUNE BOUNDARIES. MCAS (H), NEW RIVER HAS A TOTAL OF 10,200 LINEAR FEET OF RUNWAY. THE UNITS ASSIGNED PROVIDE THE COMMANDER WITH LIGHT, MEDIUM AND HEAVY HELICOPTER LIFT CAPABILITY, HELICOPTER GUNSHIP AND OBSERVATION AIRCRAFT SUPPORT.

3. AIRFIELD DATA.

- A. NAME: MCAS (H), NEW RIVER, N. C. (MCCUTHEON FIELD)
- B. B.E. NUMBER/TDI CATEGORY CODE: 0410LMO081/80073
- C. LOCATION: GEO: 344200N0772600W UTM: 18STP76524366
- D. MAP REFERENCE: SHEET 5553 III, SERIES V742, EDITION DMATC 07, SCALE 1:50,000
- E. AIRFIELD CAPABILITY: CAPABLE OF HANDLING UP TO MEDIUM FIXED WING AIRCRAFT.
- F. AIRFIELD STATUS: OPERATIONAL
- G. AIRFIELD TYPE: MILITARY
- H. AIRFIELD PRINCIPAL USE: HELICOPTER BASE
- I. ELEVATION: 24 FEET ABOVE MEAN SEA LEVEL (AMSL)

J. NUMBER OF RUNWAYS: 2

K. RUNWAY DIMENSIONS AND CAPACITIES:

<u>RUNWAY</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>MAXIMUM CAPACITY</u>
RWY 1/19	5125'	150'	185,000 LBS.
RWY 5/23	5098'	150'	177,000 LBS.

(NOTE: NEW RIVER RUNWAYS HAVE NO USEABLE OVERRUNS)

L. RUNWAY SURFACE: ASPHALT

M. RUNWAY SURFACE CONDITION: GOOD

N. NUMBER OF PARKING APRONS: 4

O. NUMBER OF HANGERS: 6

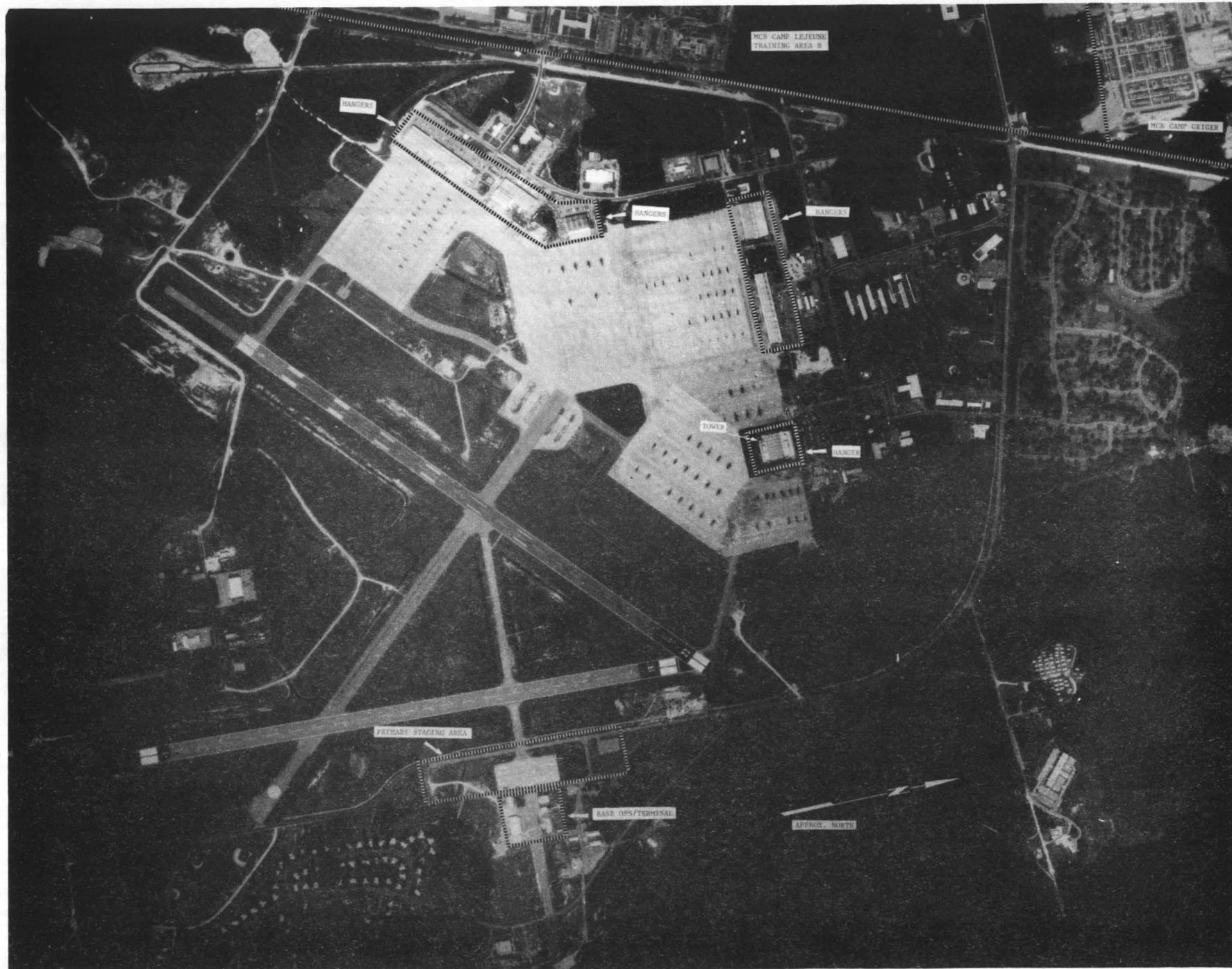
P. MEDICAL FACILITIES AVAILABLE: YES

Q. TOWER/TERMINAL LOCATION: MCAS (H), NEW RIVER TOWER IS LOCATED ABOVE THE SOUTHWEST CORNER OF A HANGER APPROXIMATELY 800 METERS NORTH OF THE CENTER OF RUNWAY 5/23. WHILE NO TERMINAL SERVICES ARE AVAILABLE, PASSENGER EMBARK/DEBARK IS ACCOMPLISHED IN THE BASE OPERATIONS BUILDING ADJACENT TO THE PARKING APRON EAST OF RUNWAY 1/19.

R. MAJOR TRANSPORTATION ROUTES: MCAS (H), NEW RIVER IS SERVICED BY HIGHWAYS U. S. 17 AND NC 24, WHICH TRAVERSE THE WESTERN AND NORTHERN BOUNDRIES OF THE FACILITY.

AFLD ILLUSTRATION SHEET

DATE OF PHOTOGRAPHY: 04 AUG 84



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COUNTRY	UNITED STATES	RECORD ID	0410LM0081	TDI CAT	80073
NAME	MCAS (H) NEW RIVER	LAT/LONG	3442N07726W		

PRODUCED BY: 2D FLIU
FOR: 2D MARDIV



CHAPTER 7

CLIMATOLOGY

CLIMATOLOGY

1. PURPOSE. THE PURPOSE OF THIS CHAPTER IS TO GIVE THE TACTICAL COMMANDER A GENERAL OVERVIEW OF CLIMATIC CONDITIONS THAT ARE RELEVANT TO OPERATIONS CONDUCTED ABOARD CAMP LEJEUNE MILITARY RESERVATION.

2. SCOPE. THIS CHAPTER INCLUDES A GENERAL LOCAL CLIMATOLOGY REPORT, A MONTHLY DATA SYNOPSIS AND GENERAL DESTRUCTIVE WEATHER INFORMATION. REQUIREMENTS FOR SPECIFIC WEATHER, TIDAL AND ASTRONOMICAL DATA SHOULD BE DIRECTED TO THE LOCAL WEATHER SERVICE OFFICE AT MCAS (H), NEW RIVER.

3. DESTRUCTIVE WEATHER INFORMATION. THE COMMANDING GENERAL, MARINE CORPS BASE CAMP LEJEUNE WILL SET HURRICANE/TROPICAL STORM/SNOW/ICE CONDITIONS OF READINESS FOR MCB, CAMP LEJEUNE AND MCAS (H), NEW RIVER. THE MCAS (H), NEW RIVER WEATHER SERVICE OFFICER IS RESPONSIBLE FOR ORIGINATING AND TERMINATING ALL LOCAL DESTRUCTIVE WEATHER CONDITION READINESS REPORTS FOR THE MCB, CAMP LEJEUNE AREA. GENERAL STORM ALERT CONDITIONS AS ESTABLISHED BY THE MCB DESTRUCTIVE WEATHER PLAN 1-81, ARE INDICATED BELOW:

A. RAIN AND THUNDERSTORMS/TROPICAL STORMS AND HURRICANES:

- (1) CONDITION I - DESTRUCTIVE WEATHER IS IMMINENT WITHIN THE NEXT 12 HOURS.
- (2) CONDITION II - DESTRUCTIVE WEATHER IS PREDICTED TO REACH CAMP LEJEUNE WITHIN 24 HOURS.
- (3) CONDITION III - DESTRUCTIVE WEATHER HAS BEEN FORECASTED WITHIN THE NEXT 48 HOURS.
- (4) CONDITION IV - DESTRUCTIVE WEATHER IS PREDICTED TO ARRIVE WITHIN 72 HOURS.
- (5) CONDITION V - THE THREAT HAS PASSED, RESUME NORMAL DUTIES.

B. SNOW CONDITIONS:

- (1) CONDITION I - HEAVY SNOW IS ACCUMULATING. SNOW IS DRIFTING. ICE IS BEGINNING TO FORM ON POWER LINES. ROADS ARE EXTREMELY HAZARDOUS.

(2) CONDITION II - HEAVY SNOW HAS COMMENCED. ROADS ARE BECOMING HAZARDOUS. NON-ESSENTIAL PERSONNEL ARE GRANTED EARLY LIBERTY.

(3) CONDITION III - SNOW IS ACCUMULATING IN NEIGHBORING STATES AND IS EXPECTED IN OUR AREA WITHIN THE NEXT 24 HOURS.

(4) CONDITION IV - POSSIBLE THREAT OF HEAVY SNOW.

(5) CONDITION V - THREAT HAS PASSED. RESUME NORMAL DUTIES.

4. LOCAL CLIMATOLOGY.

A. TEMPERATURES/HUMIDITY: THE AREA'S AVERAGE SEASONAL TEMPERATURES ARE: SPRING (MARCH, APRIL AND MAY) 62 DEGREES F; SUMMER (JUNE, JULY AND AUGUST) 79 DEGREES F; FALL (SEPTEMBER, OCTOBER AND NOVEMBER) 65 DEGREES F; WINTER (DECEMBER, JANUARY AND FEBRUARY) 46 DEGREES F. THE MEAN ANNUAL TEMPERATURE IS 63 DEGREES F WITH A DAILY AVERAGE MAXIMUM OF 72 DEGREES F AND A DAILY AVERAGE MINIMUM OF 53 DEGREES F. THE ABSOLUTE MAXIMUM TEMPERATURE FOR THE AREA IS 101 DEGREES F OCCURRING AUGUST 1968, JUNE 1981 AND JULY 1983. THE ABSOLUTE MINIMUM WAS 8 DEGREES F OCCURRING IN JANUARY 1977 AND JANUARY 1982. AUGUST IS THE HOTTEST MONTH OF THE YEAR. THE MEAN SEASONAL RELATIVE HUMIDITY IS: SPRING 69%, SUMMER 75%, FALL 74%, WINTER 75%.

B. PRECIPITATION: ON AUGUST 19, 1981, THIS AREA RECORDED ITS MAXIMUM PRECIPITATION DURING A 24 HOUR PERIOD: 6.71 INCHES OF RAIN. HISTORICALLY, JULY IS THE WETTEST MONTH WITH AN AVERAGE MEAN MONTHLY RAINFALL OF 8.1 INCHES. NOVEMBER IS THE DRIEST MONTH WITH 2.6 INCHES OF MEAN MONTHLY RAINFALL. THE MEAN RAINFALL PER YEAR IN THE AREA IS 52.5 INCHES. THE 19.1 INCH SNOWFALL ON MARCH 2, 1980 ESTABLISHED A NEW RECORD FOR THIS AREA. THE MEAN ANNUAL SNOWFALL FOR THE AREA IS 2.6 INCHES.

C. WINDS: THE SURFACE PREVAILING WIND DIRECTION SEPTEMBER THROUGH FEBRUARY IS NORTHERLY AT 6 KNOTS WHILE THE PERIOD APRIL THROUGH AUGUST HAS PREVAILING SOUTHERLY WINDS AT 5.5 KNOTS. THE PEAK WIND WAS NORTHWESTERLY AT 72 KNOTS RECORDED DURING FEBRUARY 1976.

D. VISIBILITY: ON A MONTHLY AVERAGE THIS AREA HAS 19 DAYS WITH VISIBILITY LESS THAN 7 MILES DUE TO FOG. ANNUALLY, VFR CONDITIONS ARE EXPERIENCED 90.9% OF THE TIME, WHILE BELOW MINIMUM CONDITIONS (200 FEET/½ MILE) ARE EXPERIENCED 1% OF THE TIME.

E. THUNDERSTORMS: THUNDERSTORMS OCCUR ON THE AVERAGE OF 50 DAYS PER YEAR WITH THE MAJORITY OCCURRING DURING JUNE, JULY AND AUGUST.

F. WATER TEMPERATURES: THE AVERAGE SEA WATER TEMPERATURE COVERS AN ANNUAL SPECTRUM FROM 50 TO 78 DEGREES F, WITH AN ANNUAL MEAN TEMPERATURE OF 64 DEGREES F.

5. MONTHLY SYNOPSIS.

A. JANUARY:

(1) THE ICELANDIC LOW IS DISPLACED SOUTHWARD AND INTENSIFIED WITH ITS MEAN POSITION LOCATED NEAR 60 DEGREES NORTH AND 37 DEGREES WEST.

(2) THE BERMUDA HIGH IS NOW AN ELONGATED HIGH PRESSURE SYSTEM COVERING THE ENTIRE SOUTHERN PORTION OF THE NORTH ATLANTIC OCEAN. THE HIGH PRESSURE CENTER IS GENERALLY OVER THE AREA OF THE CANARY ISLANDS, WITH A RIDGE EXTENDING OVER THE SOUTHEASTERN PART OF THE UNITED STATES.

(3) THE GRADIENT FLOW BETWEEN THE SOUTHWESTERN SECTION OF THE ICELANDIC LOW AND THE BERMUDA HIGH RIDGE OVER THE SOUTHEASTERN UNITED STATES IS CAUSING PREVAILING GUSTY NORTH NORTHWESTERLY WINDS OVER THIS AREA.

(4) THE POLAR FRONT IS ORIENTED MORE NORTH-EAST TO SOUTH-WEST WITH ITS MEAN POSITION EXTENDING FROM ABOUT 47 DEGREES NORTH AND 30 DEGREES WEST, THEN SOUTHWESTWARD NEAR BERMUDA AND CONTINUING DOWN ACROSS CENTRAL FLORIDA BECOMING MORE EAST-WEST INTO THE GULF OF MEXICO. WAVES DEVELOPING IN THE GULF OF MEXICO AREA MOVE RAPIDLY ALONG THE FRONT, REACHING THIS AREA IN 36 TO 48 HOURS. OFTEN THESE WAVES BECOME A WELL INTENSIFIED STORM JUST OFF CAPE HATTERAS.

COLD FRONTS PASSING THIS AREA OFTEN STAGNATE JUST OFFSHORE AND INTENSIFY.

(5) FOG AND GROUND FOG ARE COMMON IN JANUARY, GENERALLY OCCURRING DURING THE EARLY MORNING HOURS WITH A LIGHT NORTHEASTERLY FLOW. FOG WILL OCCUR WITH THE ADVANCE OF WARM FRONTS, WHICH LAST FROM TWO TO THREE DAYS. STILL, FLYING CONDITIONS ARE GOOD WITH VFR EXISTING 83.9% OF THE TIME.

(6) HUMIDITY WILL AVERAGE AROUND 74% WITH A MEAN RAINFALL OF 3.76 INCHES. SNOWFALL FOR JANUARY IS A MEAN OF 1.1 INCHES AND THE MAXIMUM IS 5.9 INCHES.

(7) THE GREATEST AMOUNT OF SNOW GENERALLY OCCURS WHEN A LOW DEVELOPS ON THE POLAR FRONT IN THE NORTHERN PART OF TEXAS, THEN MOVES EASTWARD AND PASSES OFFSHORE JUST SOUTH, OR NEAR, THIS AREA.

(8) THUNDERSTORMS ARE FEW AND FAR BETWEEN, BUT MAY OCCUR WITH FRONTAL SYSTEMS PASSING THROUGH.

B. FEBRUARY:

(1) THE ICELANDIC LOW IS STILL DEEP AND WELL PRONOUNCED; ITS MEAN POSITION IS ALMOST THE SAME AS IN JANUARY.

(2) THERE IS RELATIVELY LITTLE CHANGE IN THE BERMUDA HIGH PRESSURE PATTERN COVERING THE SOUTHERN PORTION OF THE NORTH ATLANTIC OCEAN. THE CENTER OF THE HIGH REMAINS AROUND 1020 MILLIBARS, WITH A RIDGE EXTENDING OVER THE EASTERN SEABOARD.

(3) THE GRADIENT FLOW BETWEEN THE ICELANDIC LOW AND THE WESTERN RIDGE OF THE BERMUDA HIGH CAUSES GUSTY NORTH-NORTHWESTERLY WINDS TO PREVAIL OVER THE LOCAL AREA.

(4) AS IN JANUARY, THE POLAR FRONT IS BEING DISPLACED OUT OVER THE GULF OF MEXICO AND ORIENTATED NORTHEAST-SOUTHWEST ALONG THE EAST COAST. WAVES WILL CONTINUE TO DEVELOP ON THE POLAR FRONT. THESE SYSTEMS REACH THIS AREA IN 36 TO 48 HOURS. OCCASIONALLY, THE

POLAR FRONT WILL LIE EAST TO WEST, ENTERING THE ATLANTIC IN THE AREA OF CAPE HATTERAS. THIS MAY CAUSE INCREASED CLOUDINESS IN THIS AREA, BUT SELDOM ANY WEATHER. WHEN A SLOW MOVING WAVE DEVELOPS OFF OF CAPE HATTERAS ON THE FRONT, THUNDERSHOWERS MAY OCCUR FOR A SHORT PERIOD.

(5) THE AMOUNT OF FOG IS JUST ABOUT THE SAME AS IN JANUARY. IT OCCURS GENERALLY AFTER FRONTS PASS AND AS THE WINDS BECOME MORE NORTHEASTERLY.

(6) THUNDERSTORMS ARE RARE, OCCURRING MOSTLY WITH FRONTAL ACTIVITY. HUMIDITY AVERAGES AROUND 67%, AND THE RAINFALL IS ABOUT THE SAME AS IN JANUARY, WITH A MONTHLY MEAN OF 3.99 INCHES. SNOWFALL IS A MEAN OF 1.3 INCHES.

(7) EVEN THOUGH FEBRUARY IS THE WORST MONTH FOR FLYING, CONDITIONS ARE STILL VFR 88.7% OF THE TIME.

C. MARCH:

(1) THE BERMUDA HIGH SHOWS CONSIDERABLE DEVELOPMENT AND SPREADS SLIGHTLY NORTHWARD OF ITS FEBRUARY POSITION. CONSEQUENTLY, THE OUTBREAKS OF POLAR AIR ALONG THE COAST ARE LESS FREQUENT, WITH ABOUT 1/3 LESS POLAR FRONTS REACHING BERMUDA. THE INCREASE OF MOIST AIR OVERRIDING POLAR AIR OVER THIS AREA IS CONDUCIVE TO WAVES DEVELOPING ON THE POLAR FRONT LYING OFFSHORE.

(2) INTENSE HIGHS AND LOWS ARE COMMON IN MARCH. WHEN A HIGH IS CENTERED OVER NEW BRUNSWICK, THE LOCAL AREA IS DOMINATED BY CLEAR SKIES, COOL TEMPERATURES, AND NORTHEASTERLY WINDS FOR SEVERAL DAYS AT A TIME. ON THE OTHER HAND, THIS AREA MAY BE CHARACTERIZED BY STRONG, FAST MOVING COLD FRONTS, WITH WAVES STILL DEVELOPING IN THE GULF OF MEXICO.

(3) THE CENTER OF WAVES DEVELOPING ON THE POLAR FRONT IN THE GULF OF MEXICO GENERALLY MOVES TO THE NORTHEAST ALONG THE COAST, PASSING OUT TO SEA NEAR CAPE HATTERAS. THESE WAVES REACH THIS AREA IN ABOUT 36

TO 48 HOURS. AS THEY APPROACH FROM THE SOUTHWEST, THE RAIN SHIELD WILL EXTEND 300 TO 500 MILES AHEAD OF THE CENTER, WITH STRONG NORTHEASTERLY WINDS. THE RESULTS OF AN APPROACHING WAVE MAY CAUSE RAIN TO FALL IN THIS AREA FOR AT LEAST 24 TO 48 HOURS WITHOUT STOPPING. THUNDERSTORMS OCCASIONALLY WILL OCCUR WITH THESE WAVES, OR WITH THE PASSAGE OF A FRONT.

(4) THUNDERSTORMS ARE CONSIDERED TO BE FEW IN NUMBER IN MARCH AND AIR MASS THUNDERSTORMS SELDOM OCCUR. YET, JUST OFFSHORE, THUNDERSTORM ACTIVITY IS ON THE INCREASE DUE TO THE GULF STREAM'S EFFECT ON FRONTS MOVING OFFSHORE.

(5) IN CONCLUSION, MARCH IS CONSIDERED TO BE ONE OF THE DRIER MONTHS, WITH THE AVERAGE HUMIDITY AT 68%, A MEAN RAINFALL OF 3.31 INCHES, AND A TRACE OF SNOW. SNOW THAT OCCURS IS USUALLY ASSOCIATED WITH FRONTAL WAVES THAT MOVE ACROSS THE SOUTHERN STATES, APPROACHING THIS AREA FROM THE WEST-SOUTHWEST, MOVING OFFSHORE JUST SOUTH, OR NEAR THIS AREA.

(6) FOG AND GROUND FOG OCCUR OFTEN, BUT SOMEWHAT LESS THAN DURING FEBRUARY. FOG USUALLY OCCURS DURING THE EARLY MORNING WITH A LIGHT NORTHEASTERLY FLOW, OR WITH A WARM FRONTAL SYSTEM MOVING INTO THIS AREA.

(7) FLYING CONDITIONS ARE SIMILAR TO FEBRUARY WITH VFR CONDITIONS EXISTING ABOUT 88% OF THE TIME. GUSTY NORTHWESTERLY SURFACE WINDS ARE OFTEN A HAZARD TO FLYING IN MARCH.

D. APRIL:

(1) THE BERMUDA HIGH IS DISPLACED A FEW DEGREES NORTH OF ITS MARCH POSITION, AS IT IS WELL ON ITS JOURNEY NORTHWARD FOR THE SUMMER; THE ICELANDIC LOW CONTINUES TO WEAKEN.

(2) COLD FRONTAL PASSAGES ARE ABOUT THE SAME AS IN MARCH, EXCEPT THE OUTBREAKS OF COLDER AIR FROM CANADA GROW LESS FREQUENT TOWARD

THE END OF THE MONTH.

(3) AT LEAST ONE WAVE WILL DEVELOP ON THE POLAR FRONT IN THE GULF OF MEXICO AREA AND MOVE NORTHEASTWARD ALONG THE FRONT.

(4) APRIL'S MEAN MONTHLY RAINFALL IS 2.93 INCHES. NO SNOW HAS EVER BEEN RECORDED DURING THE MONTH OF APRIL IN THIS AREA.

(5) DURING THE FIRST PART OF THE MONTH, THE WINDS ARE STILL GUSTY FROM THE NORTH-NORTHWEST; HOWEVER, THE FREQUENCY OF WINDS FLOWING FROM A SOUTHERLY DIRECTION IS INCREASING. THE MEAN HUMIDITY FOR APRIL IS 65%, THE LOWEST FOR THE YEAR.

(6) AIR MASS THUNDERSTORMS ARE ON THE INCREASE, AND OCCUR ALMOST 3 TIMES AS OFTEN AS IN MARCH. THUNDERSTORMS ARE OFTEN ASSOCIATED WITH FRONTAL PASSAGES AND INTENSIFY OUT OVER THE GULF STREAM. ON THE WHOLE, STORMY WEATHER OFFSHORE IS NOT AS GREAT AS IN MARCH, AND DOES NOT LAST LONG.

(7) FOG IS STILL COMMON WITH NORTHEASTERLY WINDS, BUT OCCURS LESS FREQUENTLY THAN IN MARCH.

(8) FLYING CONDITIONS ARE OUTSTANDING, WITH VFR EXISTING ABOUT 95% OF THE TIME.

E. MAY:

(1) THE BERMUDA HIGH CONTINUES TO BUILD NORTHWARD, AS THE ICELANDIC LOW WEAKENS. OTHERWISE, THE PRESSURE PATTERN REMAINS MUCH THE SAME AS IN APRIL.

(2) OFFSHORE WEATHER IS GENERALLY GOOD AS A WHOLE, BUT THUNDERSTORMS AND SHOWERS INCREASE AS FRONTS PASS THROUGH AND OUT OVER THE GULF STREAM.

(3) FRONTS TEND TO BE ORIENTATED MORE EAST-WEST AND OFTEN SEEM TO REMAIN STATIONARY JUST TO THE NORTH, WITH WARM TROPICAL AIR FLOWING OVER THE AREA FOR SEVERAL DAYS. EVEN THOUGH THE PREVAILING WIND

IS NORTH-NORTHWESTERLY, OUR STRONGEST GUSTS ARE SOUTHERLY AND ASSOCIATED WITH THUNDERSTORMS. THE FREQUENCY OF COLD FRONTAL PASSAGE IS LESS THAN IN APRIL.

(4) THUNDERSTORM ACTIVITY IS STILL ON THE INCREASE, OCCURRING WITH FRONTAL ACTIVITY AND AIR MASSES. THE REASON BEING THAT ANY WEDGE OF COLD AIR MOVING INTO THIS AREA WILL LIFT THE TROPICAL AIR, CAUSING CONVECTIVE TYPE WEATHER. PRECIPITATION IS GREATER THAN IN APRIL AND HAS INCREASED TO A MONTHLY MEAN OF 4.15 INCHES. THE AVERAGE HUMIDITY FOR MAY IS APPROXIMATELY 73%.

(5) FOG IS ALSO ON THE INCREASE, OCCURRING WITH A WELL DEFINED GRADIENT FLOW FROM THE NORTHEAST AFTER THE PASSAGE OF A FRONTAL SYSTEM. FOG AND GROUND FOG ALSO OCCUR WITH A VERY LIGHT SOUTHERLY FLOW BECAUSE OF WARMER AIR FLOWING FROM THE GULF STREAM ACROSS COOLER WATER, AND INLAND OVER THIS AREA.

(6) VFR WEATHER IS LESS THAN IN APRIL, BUT FLYING CONDITIONS ARE STILL VERY GOOD, WITH VFR EXISTING 93.5% OF THE TIME.

F. JUNE:

(1) THE ICELANDIC LOW IS VERY WEAK, AND HAS ALMOST FILLED BY THE END OF JUNE.

(2) THE BERMUDA HIGH IS SLIGHTLY NORTH OF ITS MAY POSITION. IT IS CENTERED NEAR 32 DEGREES NORTH, AND IS ALMOST MIDWAY BETWEEN THE WEST COAST OF AFRICA AND THE EAST COAST OF THE UNITED STATES.

(3) THE BERMUDA HIGH RIDGE SEEMS TO BUILD OR MOVE INLAND DURING THE EARLY MORNING HOURS, THEN MOVE EASTWARD DURING THE AFTERNOON AND EVENING. THE RESULTS OF THE OSCILLATION IS CHARACTERIZED BY A PRESSURE CHANGE OF ABOUT 3 MILLIBARS ALONG THE COAST AND BY A DECREASE IN THE SOUTHWESTERLY WIND, AS THE RIDGE MOVES BACK EASTWARD. WITH THE INTENSIFICATION OF THE BERMUDA HIGH, THE

POLAR FRONTS SELDOM REACH THIS AREA.

(4) THE POLAR FRONT IS GENERALLY ORIENTATED ON A MORE EAST-WEST POSITION, OFTEN BECOMING ALMOST STATIONARY JUST SOUTH OF CAPE HATTERAS. A BAND OF THUNDERSTORMS GENERALLY ACCOMPANIES THE FRONTAL SYSTEM. OFTEN, OVERCAST SKIES OF HIGH CLOUDS WILL PREVAIL NORTH OF THE POLAR FRONT, WHILE THIS AREA WILL BE OBSERVING CONVECTIVE TYPE CLOUDS, ASSOCIATED WITH TROPICAL AIR, SOUTH OF THE SYSTEM. IF THE POLAR FRONT DOES PASS THROUGH THIS AREA, THUNDERSTORMS AND HEAVY RAIN ARE GENERALLY IN STORE FOR THE AREA.

(5) THUNDERSTORMS OF THE AIR MASS TYPE ARE ON THE INCREASE. THIS IS NORMAL BECAUSE OF THE INCREASE IN MOIST TROPICAL AIR FLOWING AROUND THE WEST RIDGE OF THE BERMUDA HIGH. THUNDERSTORMS IN JUNE USUALLY PRODUCE HEAVY PRECIPITATION, WITH STRONG WIND GUSTS OF SHORT DURATION.

(6) WEATHER OFFSHORE IS ALMOST THE SAME AS IN MAY; HOWEVER, NIGHT AND EARLY MORNING THUNDERSTORMS OCCUR MORE FREQUENTLY.

(7) JUNE IS CONSIDERED TO BE A WET MONTH, WITH A MEAN RAINFALL OF 5.9 INCHES AND A MAXIMUM OF 11.82 INCHES. THE AVERAGE HUMIDITY IS NEAR 73%.

(8) FOG AND GROUND FOG IS VERY COMMON DURING THE EARLY MORNING HOURS IN JUNE, OCCURRING ON AN AVERAGE OF 23 DAYS. MOST OF THE GROUND FOG OCCURS WITH A LIGHT SOUTHERLY FLOW; HOWEVER, IF A FRONTAL SYSTEM SHOULD PASS THROUGH THE AREA WITH WINDS BECOMING NORTHEASTERLY 3 TO 6 KNOTS, DEEP FOG WILL MOVE OVER THE AREA.

(9) VFR CONDITIONS ARE VERY GOOD IN JUNE, AVERAGING 93% OF THE TIME.

G. JULY:

(1) THE WESTERN RIDGE OF THE BERMUDA HIGH COVERS THE EASTERN SEABOARD

STATES MOST OF THE TIME DURING JULY. THIS CIRCULATION KEEPS THE THIS AREA UNDER A SOUTHWESTERLY FLOW OF HOT, HUMID TROPICAL AIR. THE BERMUDA HIGH HAS REACHED ITS NORTHERN MOST POSITION. DUE TO THE BLOCKING RIDGE, COLD FRONTS SELDOM REACH THIS AREA. WHEN THEY DO, THEY ARE USUALLY ORIENTATED MORE EAST AND WEST. MOST OF THE TIME, THESE FRONTS PRODUCE VERY LITTLE WEATHER, BUT WILL OCCASIONALLY BRING SOME THUNDERSTORMS.

(2) THUNDERSTORMS THAT OCCUR IN AT THIS AREA ARE MOSTLY AIR MASS TYPE, ASSOCIATED WITH A SOUTHERN FLOW OF TROPICAL AIR. THUNDERSTORMS ARE COMMON JUST OFFSHORE AT NIGHT, DEVELOPING NEAR MIDNIGHT, REACHING THEIR MAXIMUM INTENSITY IN THE EARLY MORNING HOURS, AND DISSIPATING SOON AFTER SUNRISE. ON OCCASION, THESE THUNDERSTORMS HAVE BACKED UP ENOUGH TO BE VISIBLE OR TO CAUSE RAIN OR THUNDERSTORMS IN THIS AREA, GENERALLY IN THE EARLY MORNING HOURS. MOST RAINFALL IN THIS AREA IS ASSOCIATED WITH THUNDERSTORMS, OR WITH HURRICANES THAT MAY MOVE INTO THE AREA.

(3) JULY IS ACTUALLY THE BEGINNING OF THE HURRICANE SEASON, BUT THEY (HURRICANES) SELDOM REACH THIS AREA. JULY MAY NOT HAVE LONG PERIODS OF RAINFALL, BUT THERE IS NO DOUBT THAT MORE RAIN FALLS DURING THIS MONTH THAN ANY OTHER MONTH OF THE YEAR. AS MUCH AS 5.35 INCHES OF RAIN HAS FALLEN IN 24 HOURS, CAUSED BY THUNDERSTORMS WHICH ARE MORE FREQUENT IN JULY THAN DURING ANY OTHER MONTH. THE MEAN RAINFALL FOR JULY IS 8.08 INCHES, WITH A MAXIMUM OF 14.34 INCHES.

(4) FOG AND GROUND FOG OCCUR OFTEN IN JULY, BUT THE FOG DOES NOT HINDER FLYING TO ANY GREAT EXTENT. THE PERCENTAGE OF IFR WEATHER IS VERY MINIMAL AND IS CAUSED MOST OF THE TIME BY THUNDERSTORMS. VFR CONDITIONS EXIST 94.7% OF THE TIME.

(5) THE HUMIDITY IN THE AREA AVERAGES AROUND 74%.

(6) JULY, WITH A MEAN TEMPERATURE OF 87.9 DEGREES F IS ONE OF THE HOTTEST MONTHS. TEMPERATURES IN EXCESS OF 100 DEGREES F OCCUR .7% OF THE TIME.

H. AUGUST:

(1) THE BERMUDA HIGH PRESSURE SYSTEM IS FOUND TO BE MIGRATING TO THE SOUTH WITH THE APPROACH OF FALL AND WINTER. THE MEAN CENTER IS SLIGHTLY SOUTH OF ITS JULY POSITION, WITH THE WEST RIDGE EXTENDING INLAND OVER THE SOUTHEASTERN UNITED STATES. THIS SITUATION PLACES THIS AREA UNDER THE INFLUENCE OF MOIST TROPICAL AIR. A LARGE PORTION OF THE TIME, HOWEVER, THE WINDS TEND TO PREVAIL MORE FROM THE WEST-NORTHWEST.

(2) THE ICELANDIC LOW IS BECOMING MORE PRONOUNCED AND IS MOVING SLOWLY SOUTHWARD.

(3) AUGUST MARKS THE BEGINNING OF MAXIMUM HURRICANE DEVELOPMENT. USUALLY AFTER THE MIDDLE OF THE MONTH, HURRICANES DEVELOP QUITE FREQUENTLY JUST NORTH OF THE LESSER ANTILLES. THEIR MEAN COURSE IS GENERALLY WESTWARD, PASSING JUST NORTH OF PUERTO RICO, IN THE FORM OF SMALL STORMS. THEY CONTINUE ON NORTHWESTWARD, FOLLOWING THE SOUTHWEST BOUNDARY OF THE BERMUDA HIGH, AS THEY INTENSIFY. AFTER LEAVING THE GREATER ANTILLES ARC, THE HURRICANES CAN BE EXPECTED TO REACH THIS AREA WITHIN 4 TO 5 DAYS. OFTEN THESE STORMS TRAVEL IN AN ERRATIC PATH AND DEVIATE FROM THE NORMAL COURSE.

(4) AIR MASS THUNDERSTORMS OCCUR QUITE OFTEN DUE TO THE WARM, MOIST TROPICAL AIR FLOWING AROUND THE WEST BOUNDARY OF THE BERMUDA HIGH RIDGE. THUNDERSTORMS EXISTING OFFSHORE AND ALONG THE COASTLINE ARE INTENSIFIED WHEN THE AIR MASS FLOW DEVIATES FROM THE WEST AND BECOMES MORE NORTH OR NORTHEASTERLY. THUNDERSTORMS ARE LESS FREQUENT THAN DURING JULY.

(5) VERY FEW FRONTAL SYSTEMS PASS THIS AREA EXCEPT DURING THE LATTER

PART OF THE MONTH. WHEN THEY DO PASS THROUGH, THEY ARE USUALLY WEAK AND DRY WITH VERY LITTLE ASSOCIATED WEATHER.

(6) AUGUST IS CONSIDERED TO BE A HOT, HUMID WET MONTH. IT IS COMMON FOR THE TEMPERATURE TO REACH THE MIDDLE 90'S FOR SEVERAL DAYS AT A TIME, WITH THE HUMIDITY AVERAGING ABOUT 78%. THE MAXIMUM TEMPERATURE RECORDED WAS 101 DEGREES F, IN 1968. MOST PRECIPITATION FOR THE MONTH OCCURS WITH HURRICANES OR WITH AIR MASS THUNDERSTORMS. THE MEAN RAINFALL FOR AUGUST IS 6.46 INCHES.

(7) FOG AND GROUND FOG OCCUR OFTEN, BUT THE FREQUENCY OF EXISTING IFR CONDITIONS IS TO BE CONSIDERED MINIMAL; ON THE OTHER HAND, THE AVERAGE FOR EXISTING VFR CONDITIONS FOR AUGUST IS APPROXIMATELY 93%.

I. SEPTEMBER:

(1) THE MEAN PRESSURE PATTERN SHOWS THE BERMUDA HIGH PRESSURE SYSTEM WHICH INFLUENCES OUR LOCAL WEATHER POSITIONED FARTHER SOUTH OF ITS AUGUST POSITION. EVEN THOUGH THE RIDGES FROM THE HIGH ARE OFTEN OVER THE SOUTHEASTERN STATES FOR SEVERAL DAYS AT A TIME, IT IS SHOWING SIGNS OF WEAKNESS. THE HIGH MAY EVEN SPLIT AT TIMES, WITH ONE CENTER OVER THE AZORES AND THE OTHER OVER THE EAST COAST. THIS MEANS THAT THE SEASONAL BREAKDOWN OF THE BERMUDA HIGH IS OCCURRING, AND POLAR FRONTS WILL OCCASIONALLY SLIP THROUGH THIS AREA AND WILL EVEN PASS THE ISLAND OF BERMUDA.

(2) THESE FRONTS ARE THE LEADING EDGE OF THE POLAR AIR MASS THAT REACHES THIS AREA FROM THE WEST-CENTRAL PART OF CANADA. AS THEY PUSH OUT OVER THE GULF STREAM, HEAVY THUNDERSTORMS OFTEN PERSIST WHILE THIS AREA MAY BE WITNESSING CLEAR SKIES AND COOL TEMPERATURES.

(3) NORTHERLY WINDS ARE THE MOST GUSTY AND OCCUR AFTER THE PASSAGE OF POLAR OUTBREAKS. GENERALLY, THESE OUTBREAKS ARE MORE FREQUENT

DURING THE LATTER PART OF THE MONTH.

- (4) HURRICANE ACTIVITY, TOO, IS USUALLY AT A MAXIMUM DURING SEPTEMBER AND MAY BE FOUND DEVELOPING ANYWHERE FROM THE CAPE VERDE ISLANDS WESTWARD INTO THE GULF OF MEXICO. THE STRONGEST WIND (70 KNOTS) WAS RECORDED HERE IN 1958 AND WAS ASSOCIATED WITH A HURRICANE.
- (5) FOG AND GROUND FOG OCCUR QUITE OFTEN IN SEPTEMBER, ESPECIALLY DURING THE EARLY MORNING HOURS; HOWEVER, THE PERCENTAGE OF IFR WEATHER IS QUITE MINIMAL, THUS VFR CONDITIONS EXIST 91% OF THE TIME.
- (6) SEPTEMBER IS DRIER AND COOLER THAN IS AUGUST, BUT IT SHOULD BE CLASSIFIED AS A WET MONTH, WITH THE AVERAGE HUMIDITY AT 78.7%. MOST OF THE ASSOCIATED RAINFALL COMES FROM FRONTAL ACTIVITY AND HURRICANES. THUNDERSTORM ACTIVITY IS BY FAR LESS IN OCCURRENCE THAN DURING THE MONTH OF AUGUST. IN TURN, THUNDERSTORM ACTIVITY IS GENERALLY ASSOCIATED WITH FRONTS OR HURRICANES. THE MEAN RAINFALL FOR SEPTEMBER IS 4.31 INCHES.

J. OCTOBER:

- (1) THE INCREASED OSCILLATION OF THE POLAR FRONT BACK AND FORTH OVER THE ISLAND OF BERMUDA IS A CLEAR SIGN THAT THE BERMUDA HIGH IS STILL WEAKENING. AT THE SAME TIME, THE ICELANDIC LOW IS FOUND TO BE DEEPENING. BOTH THE HIGH AND THE LOW ARE SLIGHTLY SOUTH OF THEIR SEPTEMBER POSITION.
- (2) LOWS ALSO BEGIN TO DEVELOP OFF CAPE HATTERAS AND MOVE OFF IN A NORTHERLY DIRECTION. OFTEN THESE LOWS BECOME ALMOST STATIONARY FOR 2 OR 3 DAYS.
- (3) OCCASIONALLY, A COLD HIGH PRESSURE SYSTEM PLUNGES DOWN ACROSS THE GREAT NORTHWEST FROM OUT OF CANADA PUSHING A COLD FRONT INTO THIS AREA. THE FRONT MAY REACH THIS AREA AS A WEAK FRONTAL SYSTEM, BUT IT WILL GENERALLY INTENSIFY AS IT PUSHES OFFSHORE OVER THE GULF STREAM. OFTEN, UNSTABLE WEATHER WILL DEVELOP JUST OFFSHORE

BEHIND THE FRONT BECAUSE OF THE FLOW OF COOL AIR FROM THE NORTHWEST OVER THE WARMER WATER. IF THE FLOW OF AIR IS NORTHEASTERLY, FOG WILL FORM OFFSHORE FOR SHORT PERIODS.

- (4) THE STRONGEST WINDS FOR THE MONTH ARE ASSOCIATED WITH ANY HURRICANE THAT MAY MOVE INTO THIS AREA.
- (5) DURING OCTOBER, FOG DOES OCCUR IN THE AREA, BUT ON A WHOLE THE VISIBILITY IS GENERALLY GOOD WITH VFR CONDITIONS OCCURRING 91.4% OF THE TIME.
- (6) THERE HAS NEVER BEEN ANY SNOW IN THIS AREA IN OCTOBER. THE AMOUNT OF RAINFALL IS LESS THAN DURING SEPTEMBER AND IS GENERALLY CAUSED BY THE PASSAGE OF FRONTS OR BY HURRICANES THAT PASS IN PROXIMITY TO THE AREA.
- (7) THE HUMIDITY FOR OCTOBER AVERAGES ABOUT 71.6%.

K. NOVEMBER:

- (1) THIS IS THE MONTH DURING WHICH FALL FADES AND WINTER BEGINS. THE COLD HIGH CENTERED OVER THE EAST-CENTRAL UNITED STATES TENDS TO MOVE FARTHER SOUTH. THIS MOVEMENT CAUSES THE POLAR FRONT TO LIE MORE TO THE SOUTH AND FREQUENTLY INTO THE GULF OF MEXICO.
- (2) WAVES MAY DEVELOP IN THE TEXAS AREA. THESE LOWS ARE GENERALLY CAUSED BY AN OCCLUDED TROUGH MOVING FROM THE WEST OVER THE ROCKY MOUNTAINS. WARM, MOIST TROPICAL AIR MOVING NORTHWARD FROM THE GULF OF MEXICO AND AROUND THE COOL HIGH OVER THE EASTERN UNITED STATES HELPS TO REGENERATE THIS TROUGH. AT THE SAME TIME, THIS MOIST TROPICAL AIR IS OVERRUNNING COOLER AIR AND A WARM FRONT WILL DEVELOP OUT OF THE TEXAS LOW. THE LOW WILL GENERALLY MOVE EASTWARD ALONG THE GULF STATES AND THEN NORTHEASTWARD ALONG THE ATLANTIC COAST REACHING THIS AREA IN ABOUT 24 TO 36 HOURS. THESE LOWS DEEPEN RAPIDLY.

(3) THE BERMUDA HIGH IS AT ITS WEAKEST AND IS NOW AN ELONGATED CONFIGURATION SPREADING EAST-WEST OVER THE SOUTHERN PART OF THE NORTH ATLANTIC OCEAN. THE ICELANDIC LOW HAS MOVED ALMOST TO ITS SOUTHERN-MOST POSITION AND IS STILL DEEPENING.

(4) SNOW DOES FALL IN NOVEMBER, BUT ONLY A TRACE HAS EVER BEEN RECORDED. THE WEATHER IS GENERALLY VERY GOOD, AND NOVEMBER COULD BE CLASSIFIED AS ONE OF THE DRY MONTHS. THE MEAN RAINFALL IS 2.61 INCHES; THE HUMIDITY AVERAGES ABOUT 72%; AND VFR CONDITIONS EXIST 91% OF THE TIME.

(5) FOG AND GROUND FOG OCCUR ON THE AVERAGE OF 18 DAYS, GENERALLY OCCURRING DURING THE EARLY MORNING HOURS. FOG OCCURS WITH A NORTH-EASTERLY OR SOUTHERLY FLOW.

L. DECEMBER:

(1) THE BERMUDA HIGH IS AT ITS WEAKEST AND IS LOCATED IN ITS SOUTHERNMOST POSITION, WITH THE ICELANDIC LOW VERY DEEP AND INTENSIFIED. FREQUENTLY, COLD AIR FROM THE ARCTIC WILL SPREAD DOWN OVER THE UNITED STATES, OFTEN EXTENDING FROM NEWFOUNDLAND DOWN THROUGH FLORIDA OR CUBA. BY THE TIME THE AIR MASS REACHES THIS AREA, WAVES DEVELOP IN THE GULF OF MEXICO AND MOVE NORTHEAST-ERLY ALONG THE POLAR FRONT AND UP THE ATLANTIC COAST. OFTEN, TWO WAVES WILL DEVELOP ON THE POLAR FRONT, ONE IN THE GULF OF MEXICO AND ONE JUST SOUTH OF CAPE HATTERAS.

(2) SOMETIMES THE POLAR FRONT BECOMES ALMOST STATIONARY ON A MORE EAST-WEST ORIENTATION JUST NORTH OF THIS AREA AND ENTERS THE ATLANTIC USUALLY A LITTLE SOUTH OF CAPE HATTERAS. THIS SITUATION LEAVES THIS AREA UNDER THE INFLUENCE OF A WARM SOUTHERLY FLOW, OFTEN CAUSING CLOUDY SKIES OR FOG.

(3) VERY LITTLE SNOW FALLS DURING DECEMBER. THE MEAN SNOWFALL IS .2 INCHES AND THE MAXIMUM RECORDED WAS 2.7 INCHES.

(4) THE OUTBREAKS OF ARCTIC AIR CAUSE GUSTY WINDS WITH A NORTHERLY COMPONENT AS A POLAR FRONT PUSHES THROUGH THIS AREA. WEATHER GENERALLY BECOMES VERY BAD JUST OFFSHORE AS THE FRONT PROCEEDS EASTWARD OVER THE GULF STREAM.

(5) DECEMBER IS USUALLY ONE OF THE DRIER MONTHS OF THE YEAR WITH A MEAN RAINFALL OF 3.81 INCHES AND THE HUMIDITY AVERAGING 73.7%.

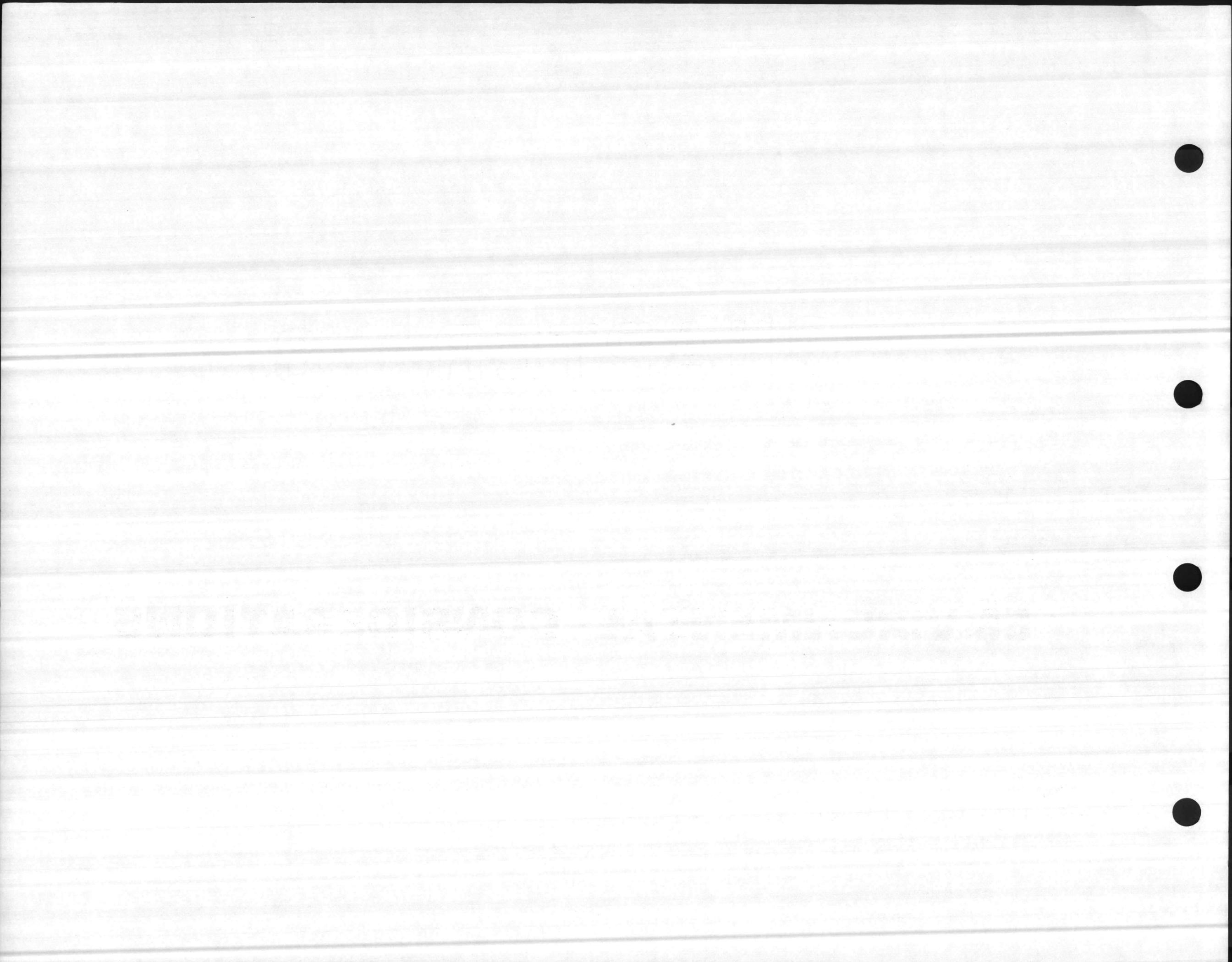
(6) VFR CONDITIONS EXIST 87.5% OF THE TIME, HOWEVER, FOG OR GROUND FOG WILL OCCUR AT LEAST 18 DAYS MOSTLY DURING THE EARLY MORNING HOURS.

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
1. <u>TEMPERATURE</u>						
A. MEAN MONTHLY TEMPERATURE.....	44.0	47.0	53.5	62.3	69.9	76.0
B. MEAN DAILY MAXIMUM TEMPERATURE.....	53.4	57.4	64.0	73.2	79.6	84.5
C. MEAN DAILY MINIMUM TEMPERATURE.....	34.6	36.1	42.6	50.8	59.7	67.1
D. MEAN NO. OF DAYS TEMP. 32 DEGREES OR LESS.....	13.8	11	3	1	0	0
E. EXTREME MAXIMUM TEMPERATURE RECORDED FOR MONTH.....	81.0 (1975)	86.0 (1982)	88 (1974)	93 (1967)	98 (1962)	101 (1981)
F. EXTREME MINIMUM TEMPERATURE RECORDED FOR MONTH.....	8.0 (1982)	13.0 (1965)	12 (1980)	26 (1972)	32 (1963)	45 (1966)
2. <u>HUMIDITY</u>						
A. MEAN RELATIVE HUMIDITY.....	71 %	68.8 %	68.4 %	65.2 %	72.6 %	72.8 %
3. <u>PRECIPITATION</u>						
A. MEAN MONTHLY RAINFALL.....	3.42"	3.99"	3.31"	2.93"	4.15"	5.94"
B. MEAN NO. DAYS WITH .01 IN. OR MORE.....	9	8.5	10	9	10	10
C. MAXIMUM AMOUNT OF RAINFALL RECORDED FOR MONTH.....	7.58" (1964)	9.06" (1983)	8.0" (1980)	6.53" (1978)	8.36" (1974)	11.82" (1965)
D. MINIMUM AMOUNT OF RAINFALL RECORDED FOR MONTH.....	1.39" (1981)	1.50" (1978)	0.75" (1967)	0.50" (1976)	0.63" (1983)	0.97" (1954)
E. MEAN MONTHLY SNOWFALL.....	1.1"	1.3"	TRACE	0"	0"	0"
F. MAXIMUM SNOWFALL RECORDED FOR MONTH.....	5.9"	13.4" (1973)	19.1" (1980)	0"	0"	0"
G. MAXIMUM PRECIPITATION RECORDED FOR 24 HOURS.....	2.69" (1982)	4.16 (1984)	2.39" (1978)	4.33" (1964)	3.87" (1977)	2.77" (1974)
4. <u>THUNDERSTORMS</u>						
A. PERCENTAGE FREQUENCY OF HOURLY OCCURRENCE.....	2 %	4 %	1 %	0.7 %	1.4 %	2.5 %
5. <u>FOG</u>						
A. PERCENTAGE FREQUENCY OF HOURLY OCCURRENCE.....	21.9 %	12.4 %	15.8 %	11.2 %	16.3 %	17.2 %
6. <u>WIND</u>						
A. PREVAILING DIRECTION.....	NORTHERLY	SOUTHERLY	WESTERLY	SOUTHWEST	SOUTHWEST	SOUTHWEST
B. MEAN SPEED.....	5 KTS	5.5 KTS	5.9 KTS	6.2 KTS	5.3 KTS	4.7 KTS
C. PEAK GUST RECORDED FOR MONTH.....	53 KTS (1963)	72 KTS	46 KTS (1967)	46 KTS (1960)	48 (1968)	54 KTS (1982)
7. <u>CLOUD COVER AND VISIBILITY</u>						
A. MEAN MONTHLY CLOUD COVER.....	5.6 TENTHS	4.8 TENTHS	5.9 TENTHS	4.5 TENTHS	6.1 TENTHS	6.4 TENTHS
B. PERCENT CEILING GREATER THAN 500'.....	95.4 %	96.3 %	95.6 %	99.3 %	98.1 %	98.4 %
C. PERCENT CEILING GREATER THAN 1000'.....	87.4 %	90.5 %	89.5 %	96.0 %	95.2 %	94.8 %
D. PERCENT CEILING GREATER THAN 3000'.....	74.0 %	81.0 %	78.2 %	87.1 %	80.1 %	76.8 %
E. PERCENT CEILING GREATER THAN 5000'.....	67.4 %	75.1 %	70.0 %	80.9 %	71.3 %	71.8 %
F. PERCENT VISIBILITY GREATER THAN 1 MILE.....	96.4 %	97.8 %	98.2 %	99.9 %	98.7 %	98.7 %
G. PERCENT VISIBILITY GREATER THAN 3 MILES.....	90.3 %	94.2 %	93.7 %	98.0 %	96.6 %	96.3 %
H. PERCENT VISIBILITY GREATER THAN 5 MILES.....	83.8 %	87.9 %	88.2 %	94.0 %	88.9 %	87.7 %
8. <u>FIELD CONDITIONS</u>						
A. IFR-CEILING LESS THAN 1000' AND/OR VISIBILITY BELOW 3 MILES....	16.1 %	11.3 %	11.9 %	4.8 %	6.5 %	7.2 %
B. BELOW MINS-CEILING LESS THAN 200' AND/OR VISIBILITY BELOW ½ MI..	2.2 %	1.3 %	1.5 %	0.2 %	1.4 %	0.3 %

	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1. TEMPERATURE						
A. MEAN MONTHLY TEMPERATURE.....	79.6	79.3	74.3	63.4	55.0	47.4
B. MEAN DAILY MAXIMUM TEMPERATURE.....	87.9	87.4	82.9	74.1	66.1	58.1
C. MEAN DAILY MINIMUM TEMPERATURE.....	71.4	71.2	65.6	54.7	43.9	36.8
D. MEAN NO. OF DAYS TEMP. 32 DEGREES OR LESS.....	0	0	0	0	4	8
E. EXTREME MAXIMUM TEMPERATURE RECORDED FOR MONTH.....	101 (1983)	101 (1968)	97 (1973)	91 (1981)	89 (1973)	82 (1981)
F. EXTREME MINIMUM TEMPERATURE RECORDED FOR MONTH.....	54 (1975)	57 (1957)	44 (1981)	26 (1962)	19 (1970)	10 (1983)
2. HUMIDITY						
A. MEAN RELATIVE HUMIDITY.....	74 %	77.8 %	78.7 %	78.5 %	74.4 %	73.7 %
3. PRECIPITATION						
A. MEAN MONTHLY RAINFALL.....	8.08"	6.46"	4.31"	3.06"	2.6"	3.81"
B. MEAN NO. DAYS WITH .01 IN. OR MORE.....	14	12	12	7	7	11
C. MAXIMUM AMOUNT OF RAINFALL RECORDED FOR MONTH.....	14.34" (1959)	12.64" (1974)	12.19" (1970)	6.49" (1977)	6.54" (1963)	7.81" (1983)
D. MINIMUM AMOUNT OF RAINFALL RECORDED FOR MONTH.....	2.32" (1956)	1.69" (1972)	1.40" (1965)	0.70" (1981)	0.57" (1956)	0.38" (1955)
E. MEAN MONTHLY SNOWFALL.....	0"	0"	0"	0"	TRACE	0.20"
F. MAXIMUM SNOWFALL RECORDED FOR MONTH.....	0"	0"	0"	0"	TRACE	2.70" (1970)
G. MAXIMUM PRECIPITATION RECORDED FOR 24 HOURS.....	5.35" (1959)	6.71" (1981)	6.15" (1979)	2.36" (1977)	3.20" (1963)	3.54" (1978)
4. THUNDERSTORMS						
A. PERCENTAGE FREQUENCY OF HOURLY OCCURRENCE.....	2.9 %	2.8 %	1.7 %	0.2 %	0.1 %	0.2 %
5. FOG						
A. PERCENTAGE FREQUENCY OF HOURLY OCCURRENCE.....	16 %	23.2 %	24.1 %	17.9 %	12.4 %	18.7 %
6. WIND						
A. PREVAILING DIRECTION.....	SOUTHWEST	SOUTH	NORTH	NNE	NORTHERLY	WESTERLY
B. MEAN SPEED.....	3.6 KTS	3.5 KTS	3.5 KTS	4.2 KTS	5.4 KTS	4.9 KTS
C. PEAK GUST RECORDED FOR MONTH.....	56 KTS (1961)	39 KTS (1974)	70 KTS (1958)	42 KTS (1982)	50 KTS (1962)	51 KTS (1975)
7. CLOUD COVER AND VISIBILITY						
A. MEAN MONTHLY CLOUD COVER.....	6 TENTHS	6.1 TENTHS	6.0 TENTHS	4.9 TENTHS	4.4 TENTHS	5.4 TENTHS
B. PERCENT CEILING GREATER THAN 500'.....	99.8 %	98.6 %	97.9 %	97.8 %	98.6 %	96.1 %
C. PERCENT CEILING GREATER THAN 1000'.....	97.9 %	96.5 %	94.5 %	92.3 %	95.8 %	90.0 %
D. PERCENT CEILING GREATER THAN 3000'.....	84.8 %	79.8 %	79.2 %	78.5 %	86.7 %	77.8 %
E. PERCENT CEILING GREATER THAN 5000'.....	77.7 %	72.5 %	68.8 %	72.8 %	81.6 %	68.3 %
F. PERCENT VISIBILITY GREATER THAN 1 MILE.....	99.4 %	98.6 %	98.4 %	98.2 %	98.6 %	98.7 %
G. PERCENT VISIBILITY GREATER THAN 3 MILES.....	95.9 %	94.3 %	94.0 %	95.4 %	96.7 %	94.1 %
H. PERCENT VISIBILITY GREATER THAN 5 MILES.....	84.4 %	83.8 %	85.8 %	88.7 %	92.4 %	98.5 %
8. FIELD CONDITIONS						
A. IFR-CEILING LESS THAN 1000' AND/OR VISIBILITY BELOW 3 MILES.....	5.3 %	7.4 %	9.1 %	9.5 %	9.1 %	12.5 %
B. BELOW MINS-CEILING LESS THAN 200' AND/OR VISIBILITY BELOW ½ MI.....	2.2 %	0.3 %	1.1 %	3.0 %	1.8 %	0.5 %

CHAPTER 8

ENVIRONMENTAL CONSIDERATIONS



1. PURPOSE. THE PURPOSE OF THIS CHAPTER IS TO PROVIDE INFORMATION AND INSTRUCTIONS REGARDING THE PROTECTION OF CAMP LEJEUNE'S NATURAL ENVIRONMENT.

2. SCOPE. INFORMATION PERTAINING TO CAMP LEJEUNE ENVIRONMENTAL AFFAIRS NOT FOUND IN THIS CHAPTER CAN BE OBTAINED BY CONTACTING THE ENVIRONMENTAL ENGINEER OR ASSISTANT CHIEF OF STAFF FOR FACILITIES, MCB, CAMP LEJEUNE (EXT. 3034).

3. ENVIRONMENTAL PRECAUTIONS AND INSTRUCTIONS.

A. WASTE WATER DISPOSAL:

(1) WASTE WATER FROM FIELD MESS OPERATIONS WILL REQUIRE A DRAINAGE PIT EXCEPT FOR ONSLOW BEACH MESS OPERATIONS. ON ONSLOW BEACH, WASTE WATER WILL BE COLLECTED IN A 3,000 GALLON FABRIC TANK (TAMCN B2130). DISPOSAL WILL BE ACCOMPLISHED BY CALLING EXTENSIONS 3001/3002 FOR PUMPING OF THE TANK BY BASE MAINTENANCE. TWO TANKS SHOULD BE DEDICATED TO FOOD SERVICE WASTE WATER.

(2) FIELD SHOWER WASTE WATER WILL REQUIRE A DRAINAGE PIT. SITE APPROVAL OF SHOWER FACILITIES IS REQUIRED PRIOR TO OPERATIONS. THE MCB NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION (EXT. 5003/2195) IS RESPONSIBLE FOR CERTIFYING SITE APPROVAL.

B. SANITARY WASTE:

(1) HUMAN WASTES WILL BE DISPOSED OF THROUGH THE USE OF RENTAL, PORTABLE SANITATION UNITS LOCATED THROUGHOUT BASE TRAINING AREAS. WITH THE EXCEPTION OF INDIVIDUAL "CAT-HOLES", FIELD SANITATION FACILITIES WILL NOT BE CONSTRUCTED.

(2) TO OBTAIN RENTAL SANITATION UNIT SUPPORT, SUBMIT A DD FORM 1149 VIA THE CHAIN OF COMMAND TO THE ASSISTANT CHIEF OF STAFF, LOGISTICS, MARINE CORPS BASE (EXT. 5813/5095). RANGE CONTROL WILL PROVIDE GUIDANCE ON THE GENERAL LOCATIONS PERMISSIBLE FOR ESTABLISHING THESE FACILITIES.

C. SPILL PREVENTION, CONTAINMENT AND CLEAN UP:

(1) PREVENTION OF OIL AND HAZARDOUS MATERIAL SPILLS AND THE RESULTING ENVIRONMENTAL DAMAGE IS THE RESPONSIBILITY OF ALL COMMANDERS.

(2) HOSES, NOZZLES AND CONNECTIONS WILL BE CHECKED FREQUENTLY TO AVOID SEEPAGE OF FUEL AND OIL.

(3) REFUELER OPERATORS WILL REMAIN WITH THEIR VEHICLES DURING REFUELING OPERATIONS.

(4) TANKER VEHICLES WILL BE PARKED IN SUCH A MANNER AS TO AVOID THE POSSIBILITY OF SPILLED FUEL ENTERING NATURAL OR MAN-MADE DRAINAGE SYSTEMS.

(5) IN THE EVENT OF A SPILL (MORE THAN ONE GALLON), THE FOLLOWING PROCEDURES WILL BE STRICTLY ADHERED TO:

(a) CONTACT "BLACKBURN" ON 38.60 (OLD SQUELCH) FM/325.0 UHF, TELEPHONE EXTENSION 3064 OR CALL THE BASE FIRE DEPARTMENT (EXT. 3333).

(b) PERSONS ON SITE SHALL ATTEMPT TO ERECT A SAND OR EARTHEN DAM AROUND THE PERIMETER OF THE SPILL.

(c) KEEP UNAUTHORIZED/UNNECESSARY PERSONNEL OUT OF THE SPILL AREA.

(d) PROVIDE PERSONNEL AND EQUIPMENT SUPPORT FOR SPILL CONTAINMENT.

(6) SPILL CLEAN UP WILL BE ACCOMPLISHED BY PERSONNEL FROM THE UNIT RESPONSIBLE FOR CREATING OR CAUSING THE SPILL. CLEAN UP PROCEDURES WILL BE ESTABLISHED AND ENFORCED BY THE NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION.

D. FIELD SERVICING OF VEHICLES:

(1) ALL WASTE PETROLEUM PRODUCTS UTILIZED DURING FIELD TRAINING WILL BE CONTAINED (I.E., IN 55 GALLON DRUMS) AND DISPOSAL INSTRUCTIONS OBTAINED FROM THE HAZARDOUS MATERIALS DISPOSAL COORDINATOR OF THE PARTICIPATING COMMAND.

(2) THE USE OF DRIP PANS AND GROUND CLOTHS IS REQUIRED DURING OIL CHANGES AND FUELING OF EQUIPMENT.

(3) CLEANING SOLVENTS AND CLEANING AGENTS ARE HAZARDOUS TO THE ENVIRONMENT. THESE MATERIALS WILL BE STORED IN SUITABLE CONTAINERS AND WASTE FLUIDS RETAINED UNTIL THE CONCLUSION OF FIELD EXERCISES/TRAINING. DISPOSAL OF THESE MATERIALS WILL BE IN ACCORDANCE WITH BO 6240.5.

E. PROTECTION OF WETLANDS:

(1) THE OPERATION OF EARTH-MOVING EQUIPMENT WITHIN WETLANDS WILL BE STRICTLY AVOIDED.

(2) SPILLAGE OF ANY MATERIAL OR LIQUID IN WETLANDS, REGARDLESS OF QUANTITY, WILL BE REPORTED IMMEDIATELY TO THE BASE NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION (EXT. 5003/2195).

F. ARCHAEOLOGICAL AND HISTORICAL SITES:

(1) WEIL POINT: WEIL POINT IS LOCATED ON THE SOUTHERN BANK OF FRENCHS CREEK WITHIN TRAINING AREA H, SECTION HD (GRID SQUARE 8535) AND HAS BEEN DESIGNATED AS AN ARCHAEOLOGICAL SITE. MOVEMENT OF TROOPS AND VEHICLES WILL BE CONFINED TO DESIGNATED TRAILS. INFANTRY UNITS WILL USE EXISTING FIGHTING POSITIONS. TRACKED VEHICLES ARE RESTRICTED TO THE TRACKED VEHICLE RAMP FOR ACCESS INTO AND OUT OF THE NEW RIVER.

(2) JARRETT'S POINT TRAINING AREA: JARRETT'S POINT, LOCATED WITHIN TRAINING AREA J, SECTION JC (GRID SQUARE 8129), IS USED PREDOMINATELY BY THE 2D ASSAULT AMPHIBIAN BATTALION FOR DRIVER TRAINING AND BY MCAS (H), NEW RIVER UNITS FOR EXTERNAL LIFT TRAINING. PORTIONS OF THIS AREA ARE DESIGNATED AS ARCHAEOLOGICAL SITES AND TRAINING WILL BE RESTRICTED AS FOLLOWS:

(a) TRACKED VEHICLE TRAINING IS PROHIBITED SOUTH OF A LINE EXTENDING FROM 810296 TO 820296. THE AREA IS MARKED BY SIGNS INDICATING A RESTRICTED AREA. HELICOPTER EXTERNAL LIFT OPERATIONS EMPLOYING SUPPORT TEAMS MAY BE CONDUCTED SOUTH OF THIS LINE. INGRESS AND EGRESS ROUTES WITHIN THIS AREA ARE RESTRICTED TO FOOT AND WHEELED TRAFFIC ALONG EXISTING TRAILS.

(b) ROAD GRADING OR OTHER ENGINEER TRAINING WHICH WILL DISTURB THE SOIL IS PROHIBITED WITHOUT WRITTEN CONSENT FROM THE ASSISTANT CHIEF OF STAFF FOR TRAINING, MCB, CAMP LEJEUNE.

G. FOREST FIRE PREVENTION:

(1) FIRE DANGER CLASSIFICATION: THE BASE FIRE DEPARTMENT COMPUTES THE FOREST FIRE DANGER RATING THREE TIMES DAILY USING THE NATIONAL FIRE DANGER RATING SYSTEM. WHEN A FIRE CONDITION III IS REACHED, THE RANGE CONTROL DUTY OFFICER WILL NOTIFY ALL TRAINING UNITS. FIRE DANGER CONDITIONS AND RESTRICTIONS ARE DEFINED AS FOLLOWS:

(a) CONDITION I: FIRE DANGER IS LOW. NO RESTRICTIONS IN AUTHORIZED RANGES AND TRAINING AREAS. NORMAL SAFETY PRECAUTIONS WILL BE FOLLOWED. A FIRE FIGHTING DETAIL, COMPOSED OF PERSONNEL FROM THE TRAINING UNIT WILL BE FORMED FOR THE PURPOSE OF COMBATING BRUSH FIRES THAT MAY OCCUR.

(b) CONDITION II: FIRE DANGER IS MODERATE. THE USE OF TRAINING AREAS WILL BE AT THE DISCRETION OF THE COMMANDING OFFICER OF THE TRAINING UNIT. EXTREME CAUTION WILL BE PRACTICED IN THE USE OF PYROTECHNICS. FIRE FIGHTING DETAILS WILL BE KEPT ON STAND BY ALERT DURING TRAINING.

(c) CONDITION III: FIRE DANGER IS HIGH. TWO FIRE FIGHTING DETAILS WILL BE FORMED WITHIN THE TRAINING UNIT WITH ONE DETAIL REMAINING ON STAND BY ALERT. HEAT TABS AND WARMING FIRES WILL BE IGNITED ONLY IN DESIGNATED AREAS UNDER THE SUPERVISION OF AN NCO. PYROTECHNICS ARE RESTRICTED TO AUTHORIZED RANGES.

(d) CONDITION IV: FIRE DANGER IS VERY HIGH. PYROTECHNICS ARE RESTRICTED TO THE G-10, K-2 AND N-1 IMPACT AREAS. SMOKING IS RESTRICTED TO FIRE-PROOFED AREAS (AREAS CLEARED OF ANY COMBUSTIBLES SUCH AS TWIGS, LEAVES, GRASS ETC.) DESIGNATED BY THE TRAINING UNIT COMMANDER AND MUST BE SUPERVISED BY AN NCO. THE USE OF GENERATORS WILL BE SUPERVISED BY AN NCO AND RESTRICTED TO AN AREA THAT HAS BEEN FIRE PROOFED TO MINERAL SOIL FOR 50 FEET AROUND EACH GENERATOR. USE OF HEAT TABS WILL BE LIMITED TO FIRE PROOFED AREAS AND SUPERVISED BY AN NCO. WARMING FIRES ARE NOT AUTHORIZED. TWO FIRE FIGHTING DETAILS WILL BE KEPT ON A STAND BY ALERT.

H. RESTRICTED TRAINING AND TRACKED VEHICLE MOVEMENT AREAS:

(1) PORTIONS OF CAMP LEJEUNE SUCH AS FISH MANAGEMENT PONDS AND RED-

COCKADED WOODPECKER HABITATS ARE OFF LIMITS TO TRACKED VEHICLES. THE WOODPECKER HABITATS ARE CONSPICUOUSLY MARKED AND THE BUFFER ZONES WILL BE AVOIDED BY MECHANIZED VEHICLES. PROHIBITED AREAS ALSO EXTEND 50 METERS FROM THE WATER EDGE OF MANAGED FRESH WATER FISH PONDS. ENTERING THESE AREAS BY TRACKED VEHICLES IS RESTRICTED TO THE USE OF DESIGNATED TANK TRAILS AND ROADS. EVERY EFFORT WILL BE MADE TO MINIMIZE THE ECOLOGICAL DAMAGE TO AREAS TRAVERSED BY MECHANIZED VEHICLES.

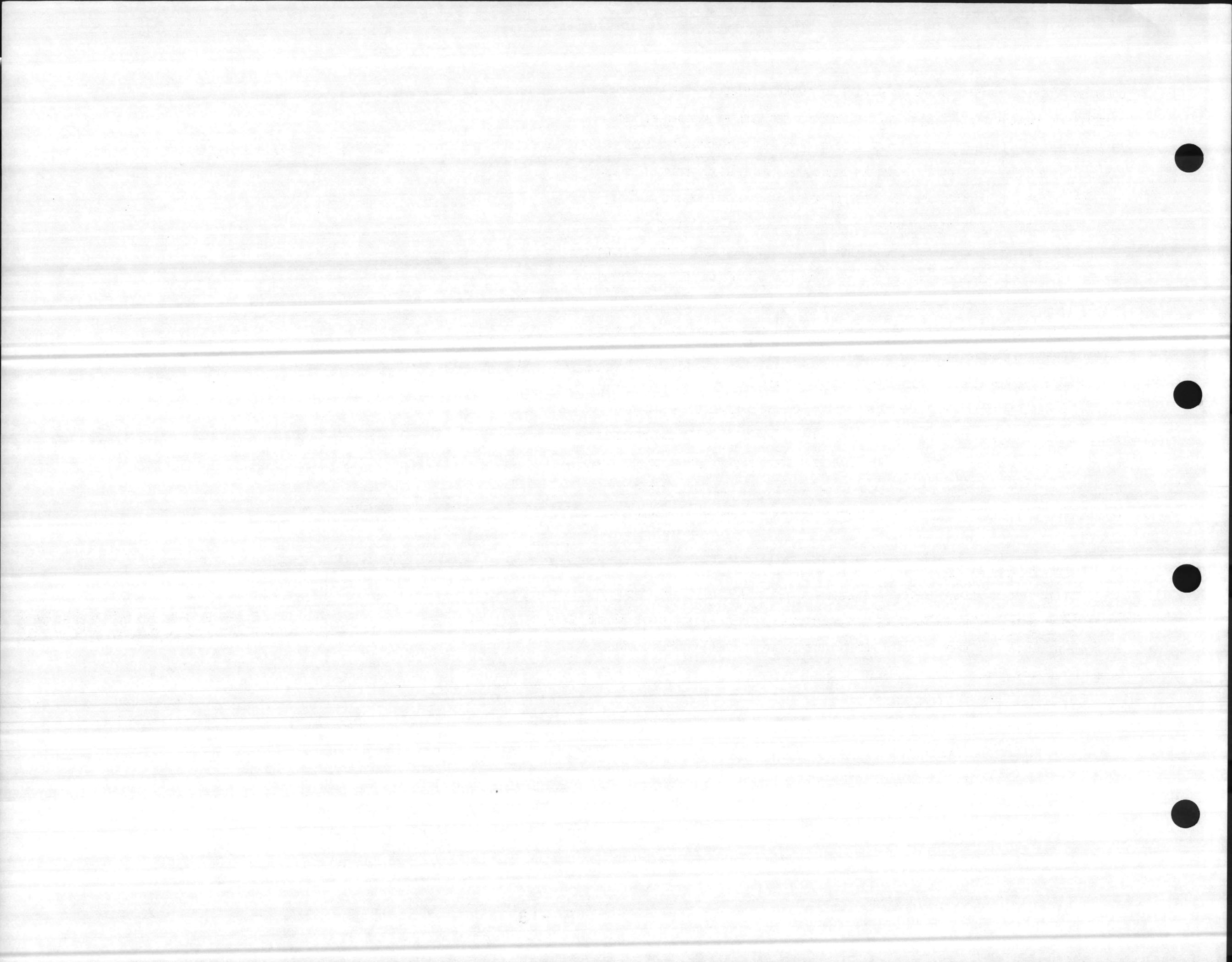
(2) CERTAIN AREAS AROUND ONSLOW BEACH ARE RESTRICTED TO TRAINING DURING THE NESTING SEASON (MAY-OCTOBER) FOR THE ATLANTIC LOGGERHEAD TURTLE. THE DISTURBANCE OF LOGGERHEAD TURTLE NESTING AREAS, TO INCLUDE VEHICULAR TRAFFIC AND CONSTRUCTION OF TANK TRAPS ON THE BEACH, IS PROHIBITED. ONLY DESIGNATED INGRESS AND EGRESS ROUTES WILL BE UTILIZED.

(3) TRACKED VEHICLES WILL CROSS RAILROAD TRACKS AND HARD-SURFACE ROADS ONLY AT DESIGNATED CROSSINGS (TANK PADS) DURING ROUTINE OPERATIONS. DURING TACTICAL EXERCISES TRACKED VEHICLES MAY CROSS HARD-SURFACE ROADS AT NON-DESIGNATED POINTS, BUT ONLY WHEN A SAFE CROSSING CAN BE ASSURED AND NO DAMAGE TO THE ROAD WILL RESULT. ONCE THE CROSSING HAS BEEN ACCOMPLISHED, THE UNIT WILL CLEAR ANY DEBRIS LEFT ON THE ROAD (I.E., DIRT OR MUD) TO ELIMINATE HAZARDS TO NORMAL TRAFFIC.

I. DANGEROUS WILDLIFE:

(1) CERTAIN ANIMAL SPECIES INDIGENOUS TO THE CAMP LEJEUNE AREA ARE CAPABLE OF CAUSING INJURY OR DEATH TO UNSUSPECTING PERSONNEL. FIELD UNITS SHOULD BE AWARE OF THEIR EXISTENCE AND TAKE PRECAUTIONS TO AVOID THEM WHENEVER POSSIBLE. SOME OF THE MOST COMMON WILDLIFE THREATS ARE:

- (a) EASTERN CORAL SNAKE
- (b) SOUTHERN COPPERHEAD
- (c) PIGMY RATTLESNAKE
- (d) EASTERN DIAMONDBACK RATTLESNAKE
- (e) EASTERN COTTONMOUTH/WATER MOCCASIN
- (f) AMERICAN ALLIGATOR



CHAPTER

9

FUTURE CONSTRUCTION AND MODIFICATION



INDIA'S NEW ...

1. PURPOSE. MARINE CORPS BASE CAMP LEJEUNE HAS UNDERGONE MANY MODIFICATIONS SINCE ITS ESTABLISHMENT. THE PURPOSE OF THIS CHAPTER IS TO PROVIDE A COMPREHENSIVE LISTING OF BUDGETED AND PROPOSED MILITARY CONSTRUCTION TO INCLUDE FACILITIES MODIFICATIONS PROGRAMMED TO OCCUR DURING FISCAL YEARS 1984 THROUGH 1991. FOR MORE DETAILED INFORMATION, CONTACT FACILITIES PLANNING DIVISION, MCB, CAMP LEJEUNE, NORTH CAROLINA. (EXT. 3034)

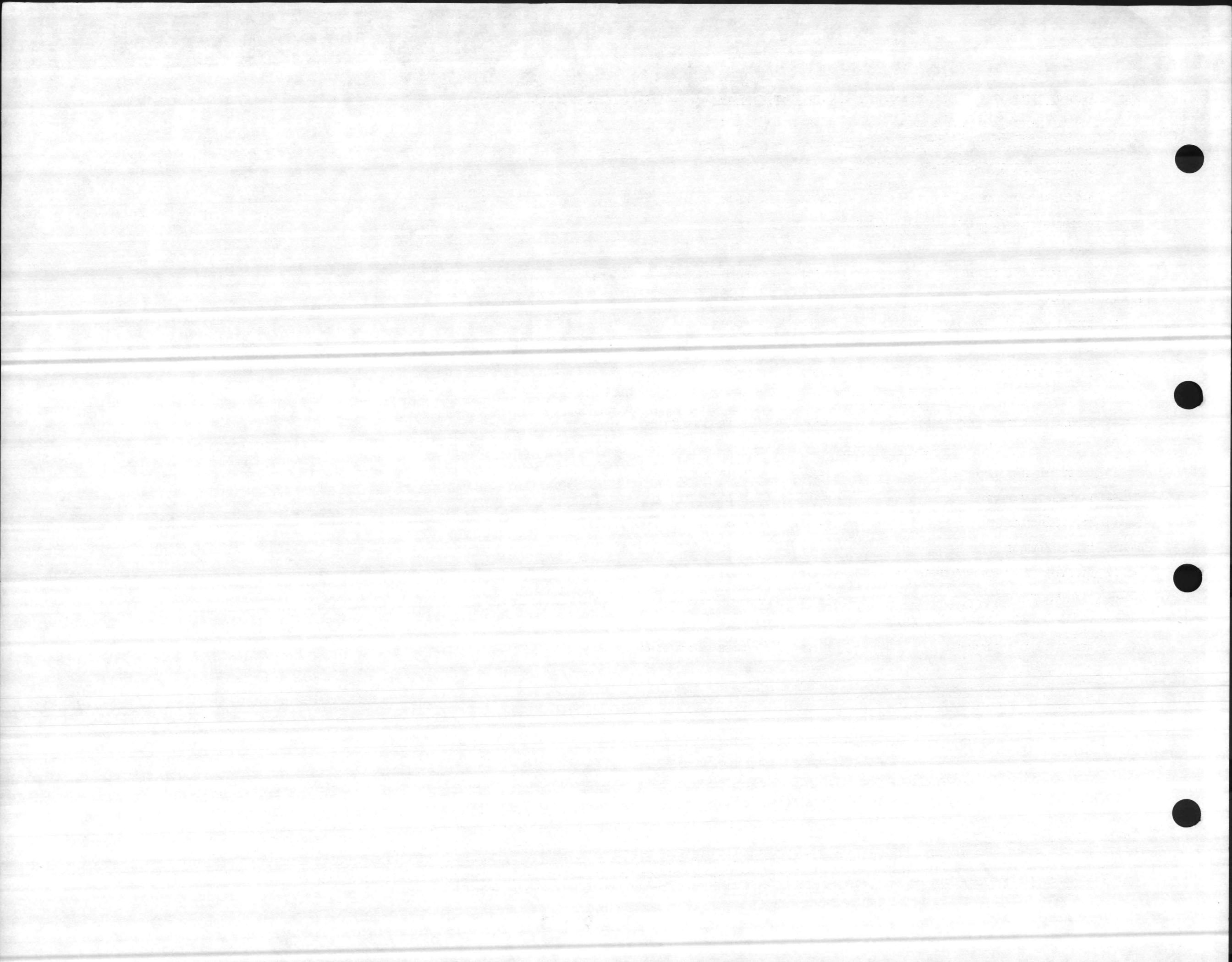
CLNC NEW CONSTRUCTION

<u>CODE</u>	<u>PROJECT TITLE</u>	<u>I.D. NUMBER</u>	<u>STATUS</u>
<u>CAMP GEIGER AREA A</u>			
740-69	ADDITION/ALTERATIONS, NCO/ENLISTED CLUB, CAMP GEIGER	P-466/N-223	UNDER DESIGN
<u>CAMP GEIGER AREA B</u>			
730-55	CONSTRUCT MULTIPURPOSE ROOM, STONE ST. SCHOOL	P-8561/F-646	UNDER DESIGN/FY-86
730-55	EXPAND ELEMENTARY SCHOOL LIBRARIES, ST. DELALIO, TT-1, BERKELEY MANOR	P-585	FY-87
740-30	MCAS/CAMP GEIGER AREA EXCHANGE SERVICE STATION	P-603/N-305	UNDER DESIGN/FY-86
<u>MONTFORD POINT AREA</u>			
171-30	MOTOR TRANSPORT MECHANIC SCHOOL	P-808	UNDER DESIGN/FY-86
721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-628	UNDER CONST/FY-84
722-10	ENLISTED DINING FACILITY	P-663	FY-87
171-20	MOTOR TRANSPORT MECHANIC SCHOOL	P-809	FY-87
171-20	MOTOR TRANSPORT MECHANIC SCHOOL	P-810	FY-88
171-10	FIELD MEDICAL SERVICE SCHOOL FACILITY	P-828	FY-89
750-10	LIGHTS, TENNIS COURTS AND SM-245	P-838	FY-85

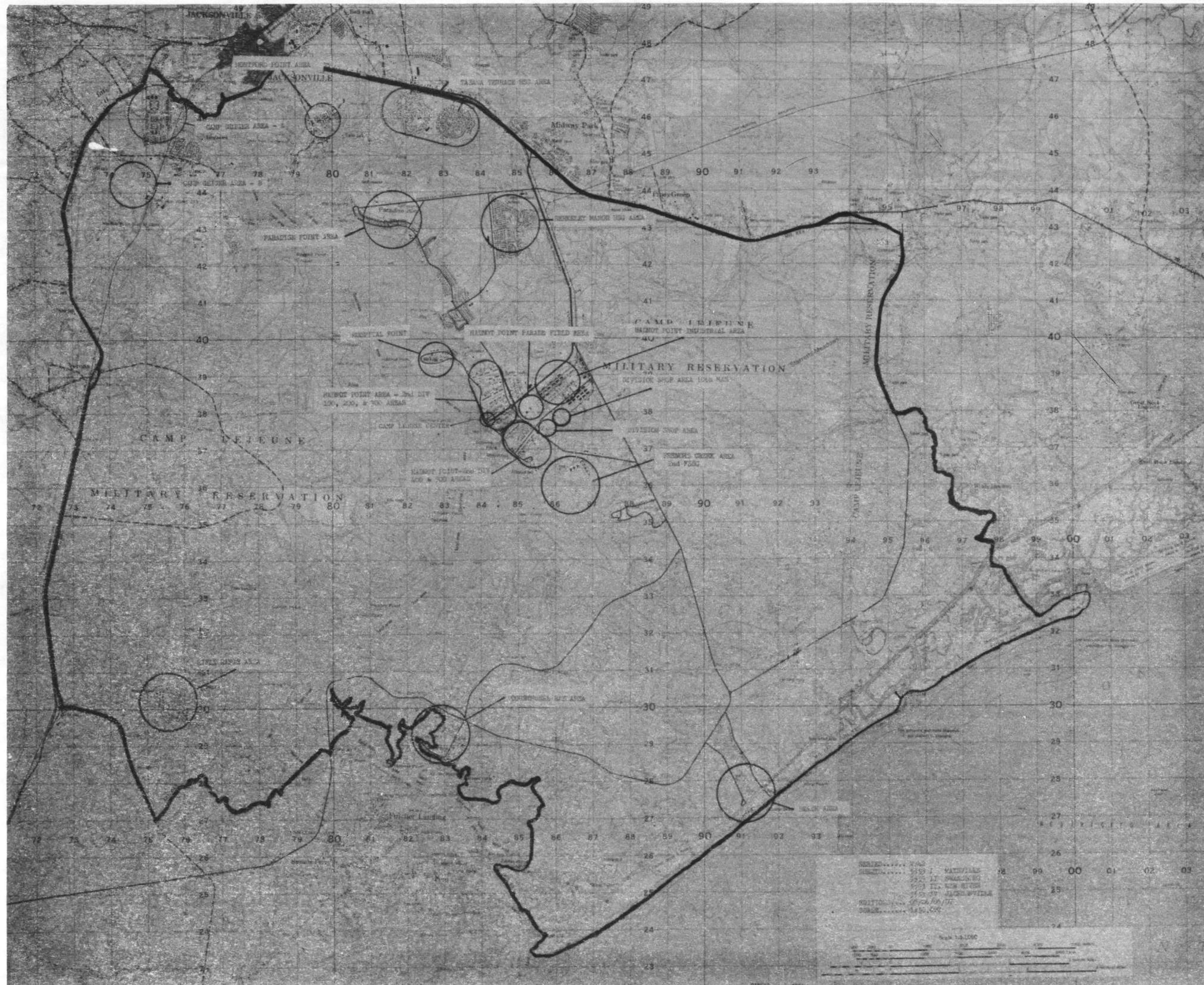
<u>CODE</u>	<u>PROJECT TITLE</u>	<u>I.D. NUMBER</u>	<u>STATUS</u>
<u>TARAWA TERRACE HOUSING AREA</u>			
740-02	EXCHANGE, TARAWA TERRACE	P-8161/N-511	FY-85
841-09	WATER TREATMENT PLANT	P-785	UNDER DESIGN/FY-85
730-55	CONSTRUCTION, MODULE, TT-1 ELEMENTARY SCHOOL	P-8571/F-645	UNDER DESIGN/FY-86
730-55	EXPAND ELEMENTARY SCHOOL LIBRARY	P-858	FY-87
730-83	CHAPEL, TARAWA TERRACE	P-824	FY-88
<u>PARADISE POINT AREA</u>			
730-55	CONSTRUCT MULTIPURPOSE ROOM, STONE STREET SCHOOL	P-856/F-646	FY-86
730-55	EXPAND ELEMENTARY SCHOOL LIBRARIES	P-858	FY-87
724-11	UNACCOMPANIED OFFICER PERSONNEL HOUSING	P-124	FY-91
<u>BERKELEY MANOR HOUSING AREA</u>			
730-60	DEPENDENT HIGH SCHOOL	P-8271/F-549	UNDER DESIGN/FY-86
610-10	CONVERT BREWSTER HIGH SCHOOL TO ADMIN COMPLEX	P-854/F-644	UNDER DESIGN/FY-86
841-09	WATER TREATMENT PLANT	P-785	UNDER DESIGN/FY-86
730-66	REROOF HIGH SCHOOL (BLDG# 825)	P-8551/F-643	UNDER DESIGN/FY-86
730-55	EXPAND ELEMENTARY SCHOOL LIBRARY	P-858	FY-87
851-10	ROADS (BREWSTER BLVD OVERPASS)	P-627	FY-87
<u>HOSPITAL POINT AREA</u>			
610-70	MAGTF HQ	P-802	UNDER DESIGN/FY-85
<u>HADNOT POINT AREA, 2ND DIV 100, 200 AND 300 AREAS</u>			
721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-630	FY-90
214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-266	FY-90
841-09	WATER TREATMENT PLANT	P-785	UNDER DESIGN/FY-85

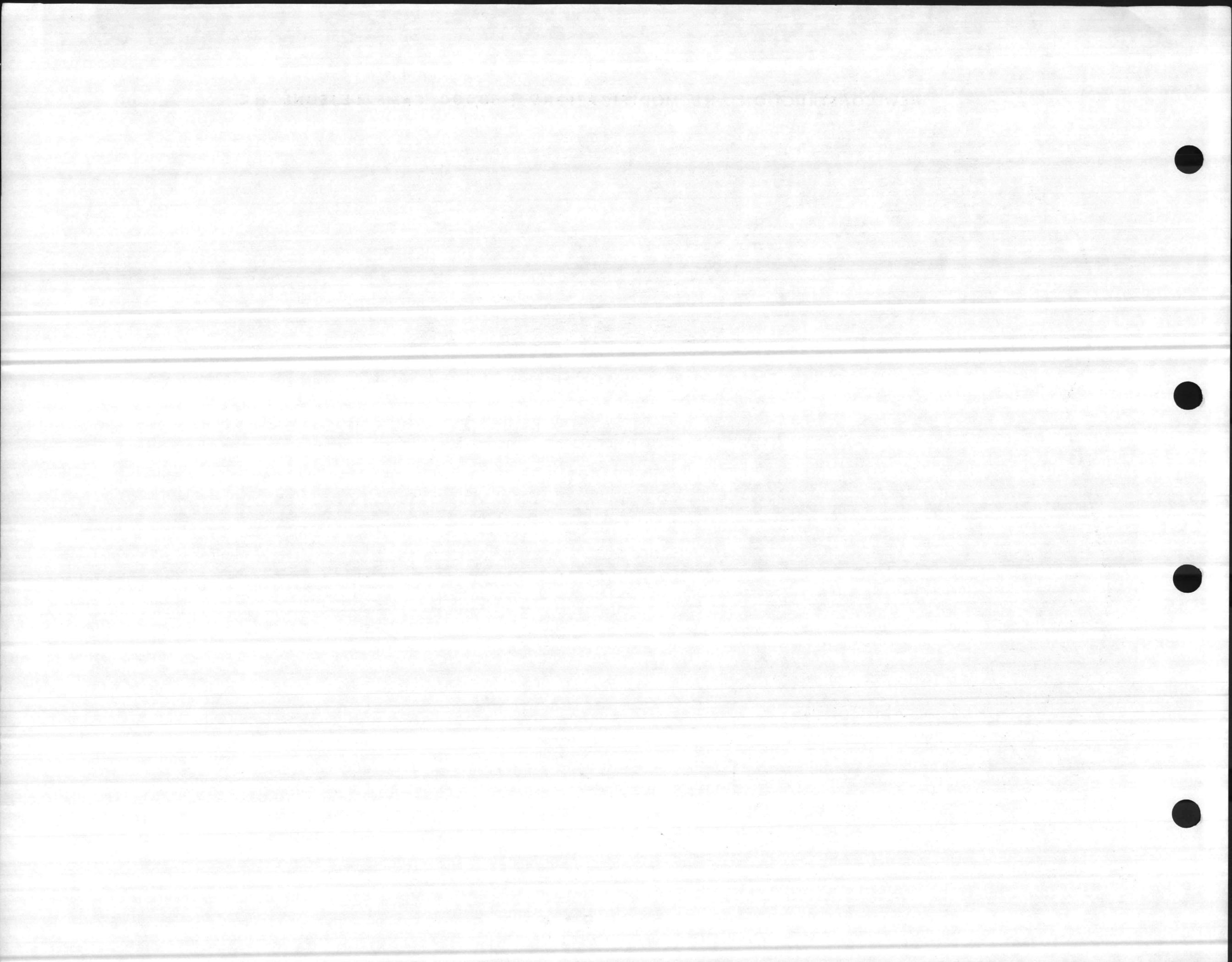
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217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-266	UNDER DESIGN/FY-86	214-51	LIGHT ARMORED VEHICLE SHOPS	P-806	FY-86
217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-643	FY-87	721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-627	FY-87
214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-525	FY-87	721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-262	FY-88
721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-629	FY-89	214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-196	FY-90
	<u>HADNOT POINT PARADE FIELD AREA</u>			217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-644	FY-90
740-36	HOBBY SHOP	P-773	FY-88	441-12	STORAGE/OUT OF STORES	P-507	FY-91
740-43	PHYSICAL FITNESS FACILITY	P-298	FY-88		<u>FRENCHS CREEK AREA</u>		
	<u>HADNOT POINT INDUSTRIAL AREA</u>			214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-054	FY-85
740-63	RENOVATE ENLISTED CLUB (BLDG# 1006)	P-833	UNDER CONSTRUCTION	214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-240	UNDER CONST/FY-8
821-09	COAL PILE RUNOFF	P-780	UNDER CONST/FY-84	217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-538	UNDER CONST/FY-84
610-20	REGIONAL AUTOMOTIVE SERVICE CENTER	P-842	FY-88	214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-517	FY-88
740-XX	MCX COMPLEX	P-797	FY-88	740-40	BOWLING ALLEY	P-259	FY-86
	<u>DIVISION SHOP AREA, 10TH MARINES</u>			740-32	SELF-SERVICE GAS STATION AND CAR WASH	P-840	FY-86
214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-678	FY-88	214-53	FIELD MAINTENANCE SHOP	P-275	FY-87
	<u>DIVISION SHOP AREA, CENTER</u>			214-53	FIELD MAINTENANCE SHOP	P-803	FY-88
217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-229	FY-89	214-53	FIELD MAINTENANCE SHOP	P-805	FY-90
441-12	STORAGE/OUT OF STORES	P-510	FY-91	214-53	FIELD MAINTENANCE SHOP	P-840	FY-89
441-12	STORAGE/OUT OF STORES	P-567	FY-91	217-30	COMMUNICATIONS/ELECTRONICS FIELD MAINTENANCE SHOP	P-679	FY-89
	<u>HADNOT POINT AREA, 2ND DIV 400 AND 500 AREAS</u>			217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-541	FY-90
721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-624	FY-85	217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-542	FY-90
831-09	SEWAGE SYSTEM IMPROVEMENT	P-790	FY-86	214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-266	FY-90
721-11	UNACCOMPANIED ENLISTED PERSONNEL HOUSING	P-631	FY-86				

<u>CODE</u>	<u>PROJECT TITLE</u>	<u>I.D. NUMBER</u>	<u>STATUS</u>
214-51	COMBAT VEHICLE MAINTENANCE SHOP	P-027	FY-87
217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-167	FY-87
610-72	BATTALION HEADQUARTERS	P-031	FY-87
217-10	COMMUNICATIONS/ELECTRONICS MAINTENANCE SHOP	P-564	FY-89
550-10	MEDICAL/DENTAL CLINIC	P-701	FY-87
740-43	GYMNASIUM	P-065	FY-88
179-55	COMBAT TRAINING POOL/TANK (INDOOR)	P-844	FY-91
143-45	ARMORY	P-227	FY-91
610-70	2D FSSG HEADQUARTERS	P-057	FY-87
<u>RIFLE RANGE AREA</u>			
740-63	RENOVATE ENLISTED CLUB (BLDG# RR-49)	P-835	UNDER CONST/FY-84
<u>COURTHOUSE BAY AREA</u>			
822-12	UTILITIES IMPROVEMENT	P-784	UNDER CONST/FY-84
740-84	HANDBALL/RACQUETBALL COURTS	P-823	FY-87
740-63	ENLISTED CLUB	P-836	FY-85
055-10	MEDICAL/DENTAL CLINIC	P-607	FY-88
441-12	STORAGE/OUT OF STORES/ARMORY	P-417	FY-91
740-69	RENOVATE NCO CLUB	P-839	FY-88
<u>BEACH AREA</u>			
740-81	RECREATIONAL LODGE/MOTEL	P-775	UNDER DESIGN/FY-84



NEW CONSTRUCTION AND MODIFICATIONS 1:50,000 CAMP LEJEUNE N.C.





APPENDIX A

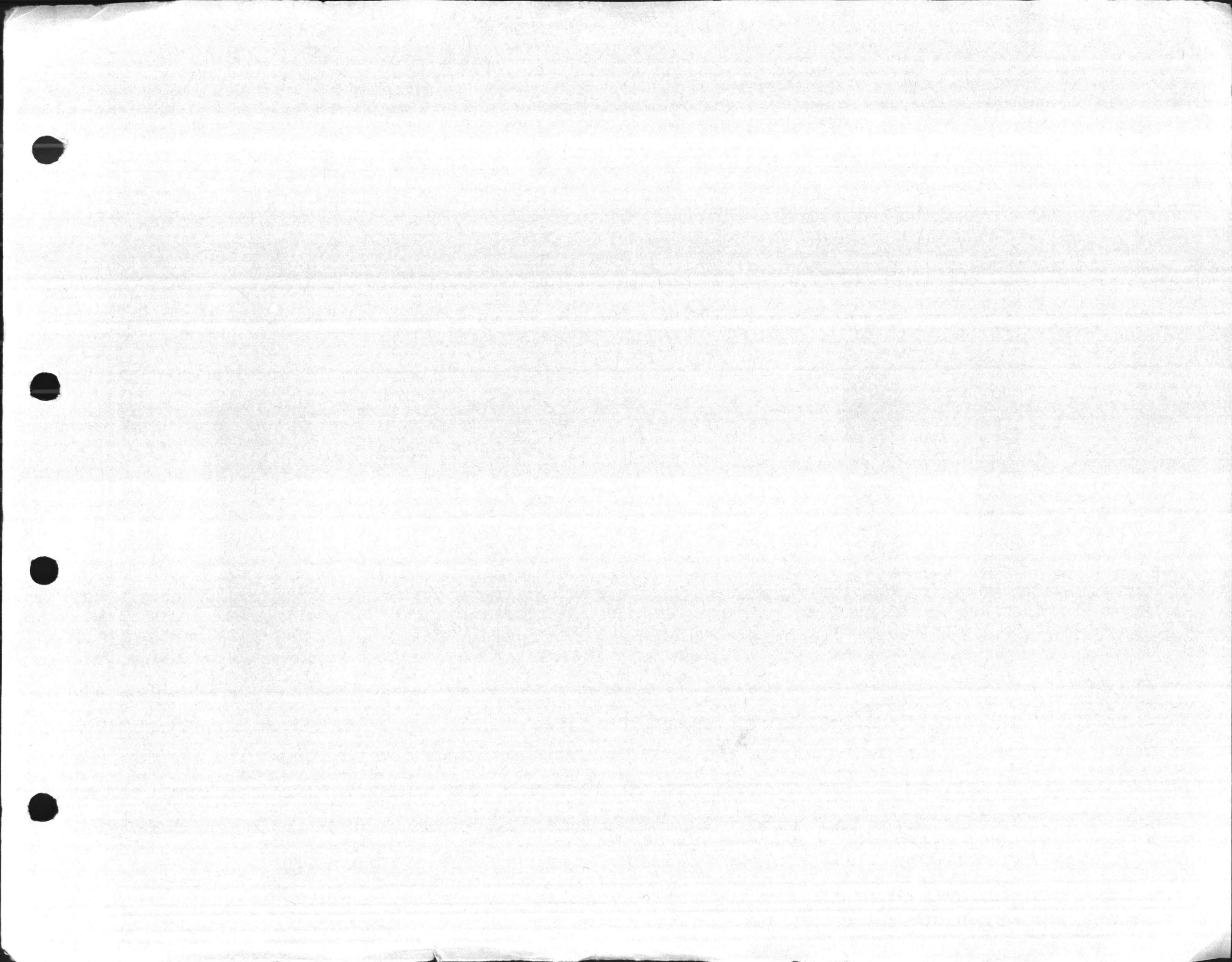
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APPENDIX B

APPENDIX B

APPENDIX C

APPENDIX 2





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