From: Director

To: Assistant Chief of Staff, Facilities

Subj: Preliminary Environmental Assessment for AVELEX 1-83, MCOLF Oak Grove

Operations

Encl: (1) CO, MWSG-27 ltr 3/MRH/pes 11000 of 19 Nov 1982

2.84

1. The enclosure has been reviewed for consistency with Base Order 11000.1A. Based on information provided in the enclosure, there appears to be no significant environmental impact with the proposed subject training. It is recommended the proposed training be approved if the following conditions are met:

- a. Ensure that shower and field kitchen are located on well-drained soil that is suitable for waste water disposal. Waste water disposal pits/trenches should not be located within 100 feet of surface water (pond, stream, marsh). The Base Training Facilities Officer has Base soil maps that should be used in shower and field kitchen site selection.
- b. All oil and hazardous material spills will be reported in accordance with BO 11090.1B. All oil contaminated soil will be cleaned up in a timely manner. The Base Fire Department will be informed of the kind, location and volume of fuel stored prior to exercise.

J. I. WOOTEN

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From: Commanding General

To: Commanding General, Marine Corps Base, Camp LeJeune,

N.C. 28542

Subj: Preliminiary Environmental Assessment for AVELEX 1-83,

MCOLF Oak Grove Operations

Ref: (a) MCB BO 11000.1A MAIN/DDS/th dtd 6 May 1982

(b) CG SECOND MAW 051549Z Nov 82

Enel: (1) CO, MWSG-27 ltr 3/MRH/pes 11000 dtd 19 Nov 1982

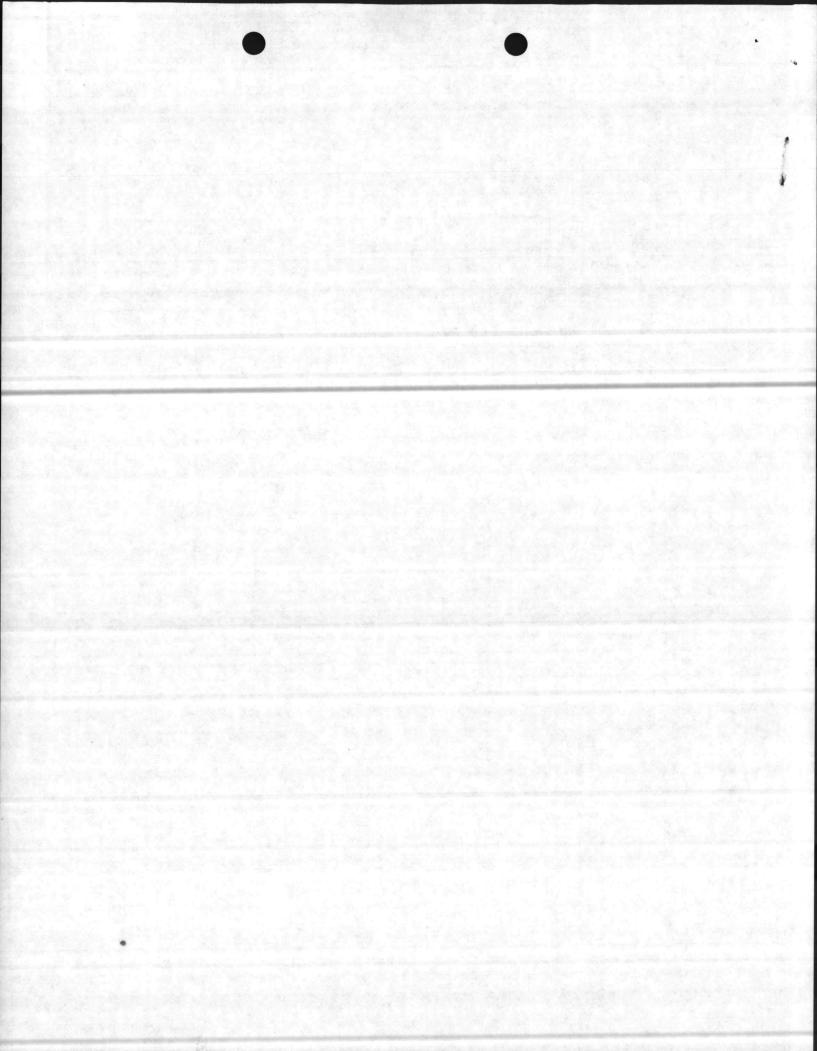
1. Enclosure (1) is Forwarded as required by reference (a) for AVELEX 1-83 scheduled for 5 - 10 December 1982.

E. L. BLOXOM By direction

Copy to:

CG, COMCABEAST

CO, MCAS, New River





### UNITED STATES MARINE CORPS

### MARINE WING SUPPORT GROUP 27

SECOND MARINE AIRCRAFT WING, FLEET MARINE FORCE, ATLANTIC MARINE CORPS AIR STATION, CHERRY POINT, NORTH CAROLINA 28533

3/MRH/pcs 11000 19 Nov 1982

Commanding Officer From:

Commanding General, Marine Corps Base, Camp Lejuene, NC 28542 To:

Commanding General, Second Marine Aircraft Wing Via:

Subj: Preliminary Environmental Assessment, MCOLF Oak Grove Operation

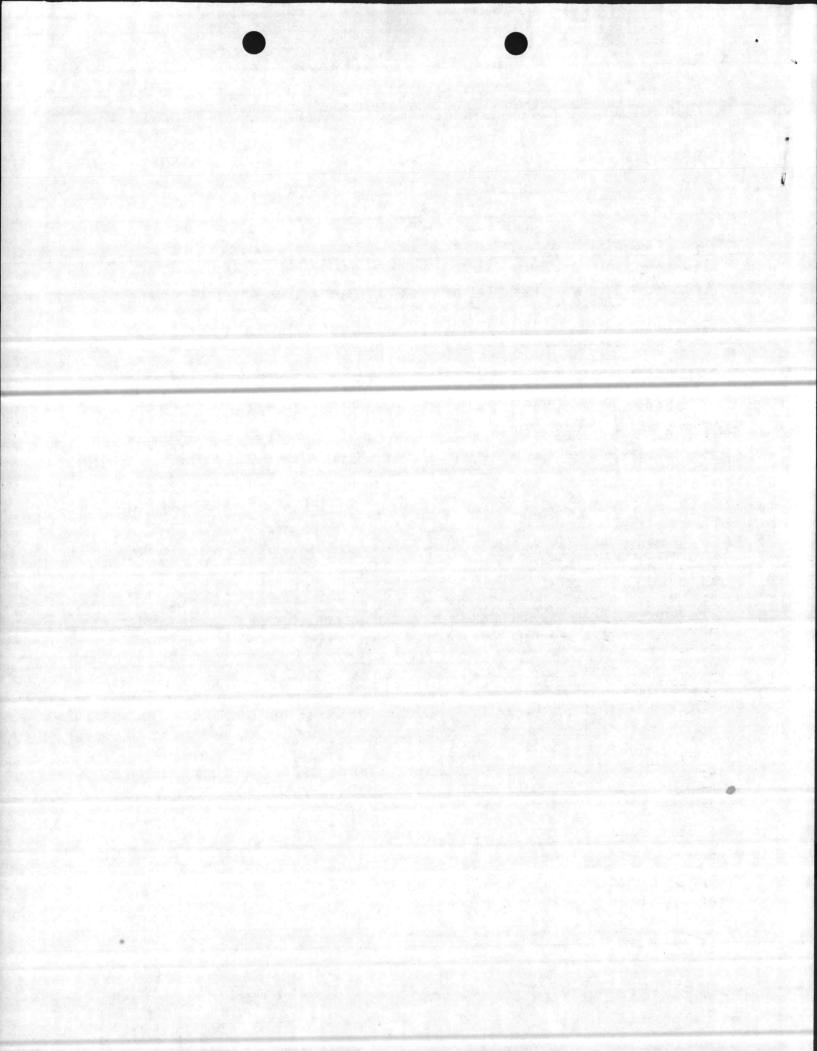
(a) MCB BO 11000.1A, MAIN/DDS/th, dtd 6 May 1981

(b) Second MAW 051549Z Nov 82

Encl: (1) Preliminary Environmental Ansessment, MCOLF Oak Grove

1. Enclosure (1) is submitted in accordance with reference (a) to support operations identified in reference (b).

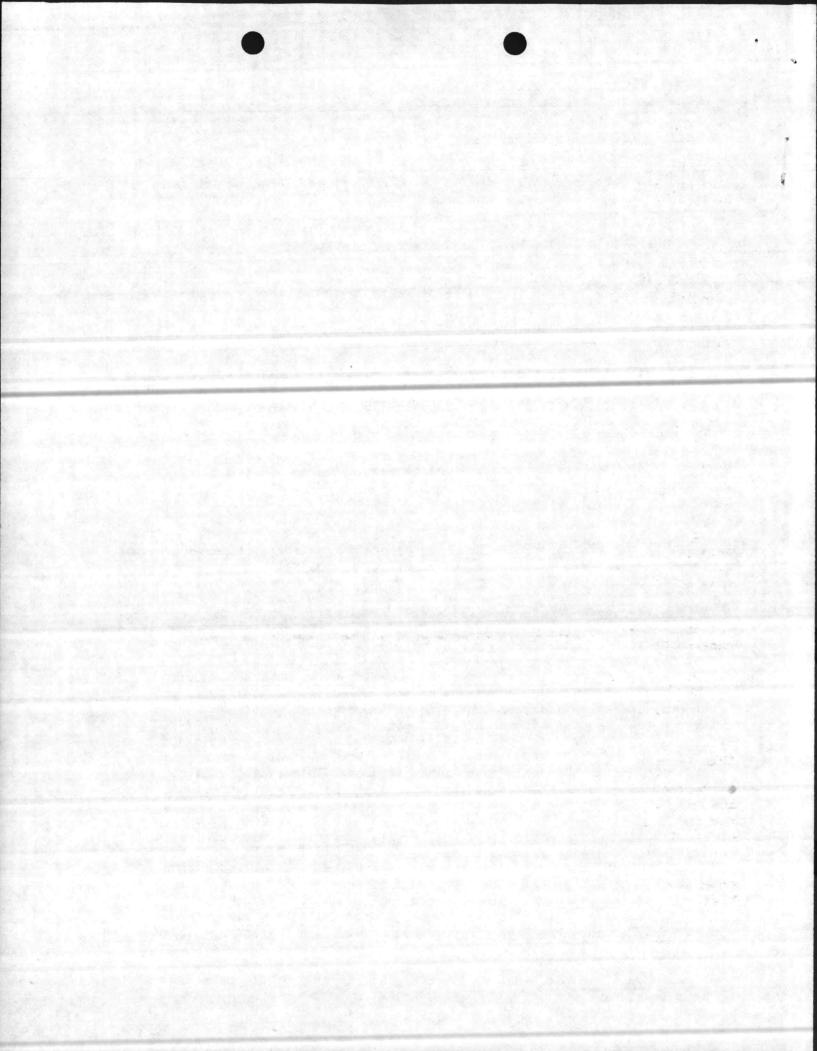
2. It is requested that enclosure (1) be maintained on file. Similiar operations are expected to occur approximately every six months.



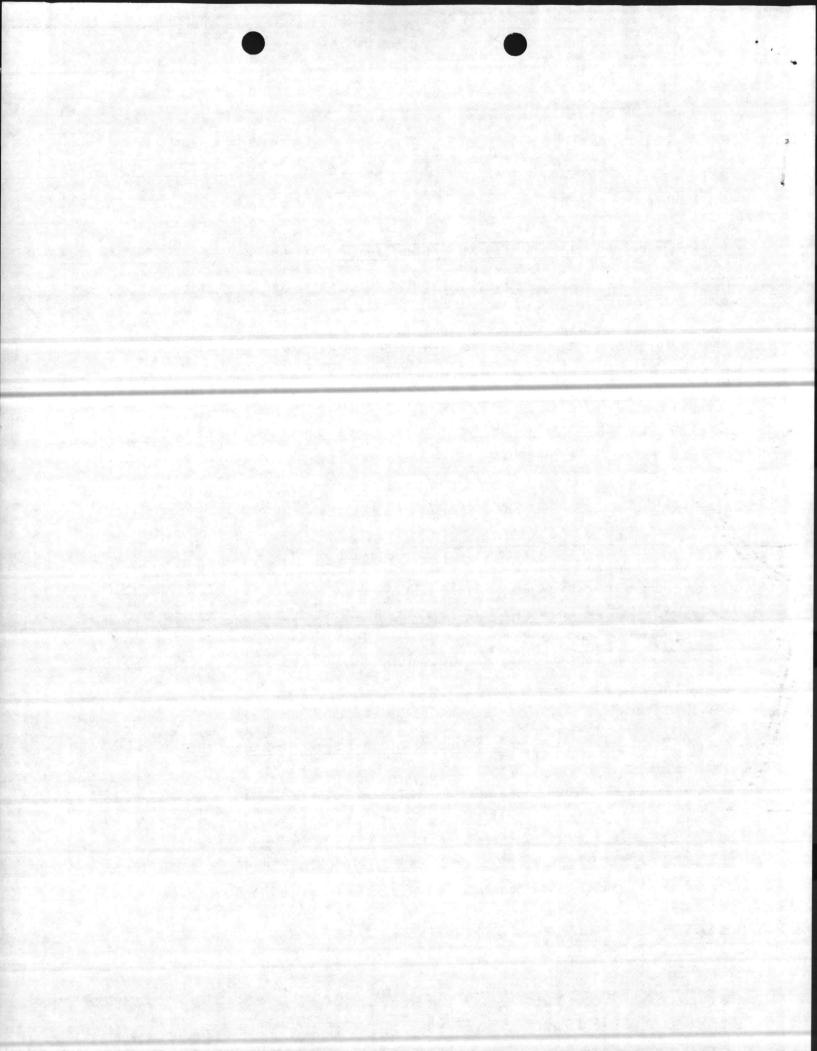
### PRELIMINARY ENVIROMENTAL ASSESSMENT, MCOLF OAK GROVE

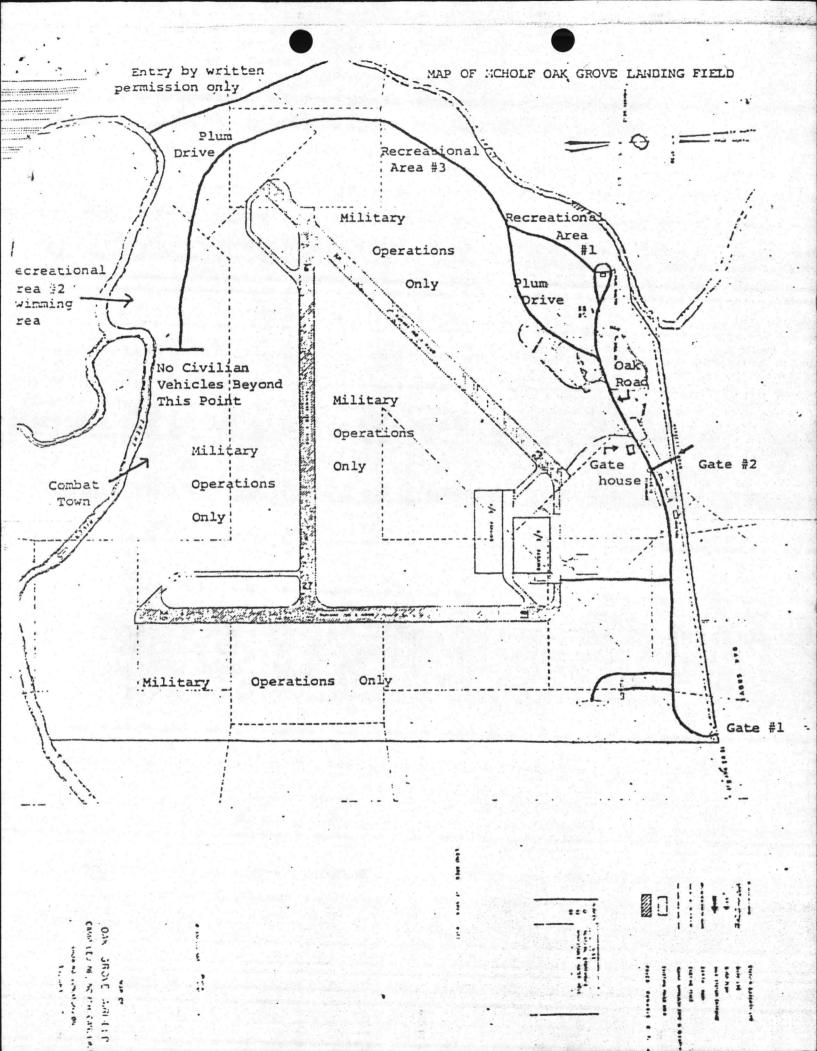
### 1. Action/Project Description

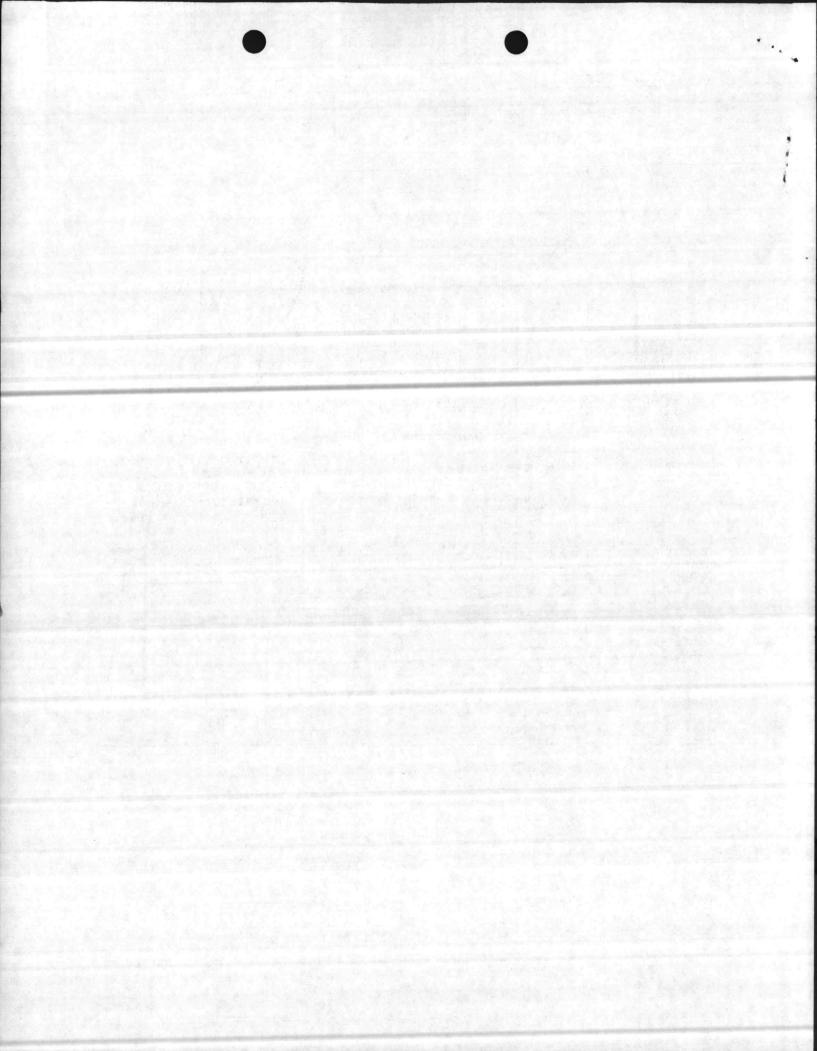
- a. The MCOLF Oak Grove Facility is to be used in conjunction with Second MAW exercise (AVELEX 1-83). Expected utilization may include the following structures/operations:
- (1) Placement of a Control Tower, TACAN, Radar Units, and Control Vans in the vicinity of the approach end of runway 05.
- (2) Billeting Tents for approximately 150 personnel in the Military Operations Area between runways 18/36 and 05/23.
- (3) Water Point and shower facility near Recreational Area #2 (same location as used in previous exercise).
  - (4) TAFDS unit near approach end runway 36 (existing berms).
- (5) Mess Hall for approximately 150 personnel near billeting area. One meal per day will be served from vaccum cans. Mess gear cleaning facilities would be required.
  - (6) Vehicle parking and maintenance near the billeting area.
- (7) Field Generators will be utilized to power all billeting and working areas.
- b. All sites required above have been utilized for similiar operations within the last year, therefore no significant brush clearance or earth work is anticipated.
- 2. Consideration of Alternatives and Site Selection. MCOLF Oak Grove has been used repeatedly for similiar operations. Other comparable sites are also being utilized. Therefore, no alternative sites were evaluated.
- 3. Compliance with Federal, State and Local Environmental Regulations and Guidelines. The applicability of the following considerations and the proposed means and measures to control, prevent or mitigate adverse environmental effects are as described below.
- a. Endangered Species Act. Use of the Action areas by endangered species of animals appears to be insignificant. This project has no apparent beneficial or adverse impact on any endangered or threatened species.
  - b. Clean Water Act. The level terrain; and sandy soil results in a condition of low erosion potential. Fuel spills or leaks would be contained by berms and/or "quick-dry" for absorbtion which would then be removed to a disposal site. The Fire Department will be notified of any spills. A 100 ft (plus) buffer zone of natural vegetation will be left around ponds/streams. Waste water will be drained into a properly prepared soakage pit to prevent water contamination. These areas will be adequately protected.
  - c. Clean Air Act. Not applicable. No significant discharge of air pollutants.



d. Coastal Zone Management Act. There is no known direct or indirect impact on tidal marshes, beaches or other protected areas other than aircraft noise. Due to past approved use of this training site, is has been determined that the Coastal Zone Management Act (CZMA) in not applicable. e. - Archeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on State or National Registers of historic sites. There are no visible remnant structures or homesites, artifacts, etc. which indicate that the site is covered by this Act. This Act is not applicable. f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) above, there is no significant potential for sediment leaving site. Therefore, these regulations are not applicable. g. Hazardous Material and Hazardous Waste Disposal. No hazardous material will be used. The current State and Federal Regulations regarding hazardous waste disposal do not appear applicable. Protection of Wet Lands Executive Order 11990. The Trent River will be used as a water source for subject field training. This is the only Wetlands which the proposed action has the potential for impacting. There will be 100 foot (PLUS) barrier left around this area. i. Sanitary Waste and Refuse Disposal. Refuse (ie., cans, paper, etc.) will be collected by using personnel and disposed of at an approved refuse container at the sanitary landfill. Port-a-Johns will be utilized to dispose of sanitary waste. j. Discuss Other Regulations Applicable. The proposed actions do not involve any environmental regulations other than those discussed above. k. Permit Requirements. None. 1. Site Map. See Appendix A to enclosure (1) of the basic letter. 4. How Does The Proposed Action Impact On Other Base Functions And Mission? a. MCOLF Oak Grove, is properly identified on Base Training Map and instructions. The proposed modification will not adversely alter the training area. It will enhance the overall training missions of the Marine Air and Ground Team. b. This exercise will not alter the features of MCOLF Oak Grove, therefore training at the facility is in accordance with the Base Master Plan. ENCLOSURE (1)









# UNITED STATES MARINE CORPS MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542



IN REPLY REFER TO

FAC/JGF/hf 5420/3 23 Nov 1982

FIRST ENDORSEMENT to CO, MWSG 27 ltr 3/MRH/dml 11000 dtd 19 Nov 1982

From: Commanding General

To: Commanding Officer, Marine Wing Support Group 27, 2d Marine Aircraft Wing,

FMFLant, Marine Corps Air Station, Cherry Point, NC 28533

Via: Commanding General, 2d Marine Aircraft Wing, FMFLant

Subj: Preliminary Environmental Assessment for AVELEX 1-83, TLZ Bluebird

Operations

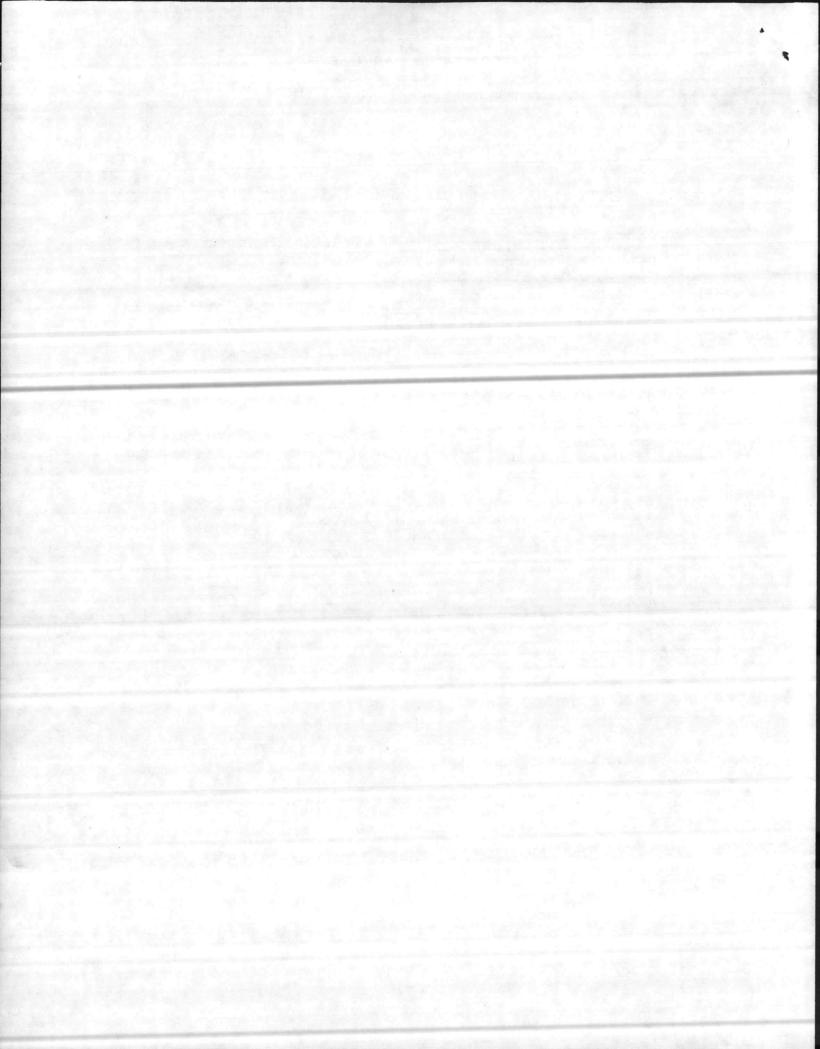
Encl: (2) Dir, NREAD 1tr NREAD/JIW/jc 11000 dtd 23 Nov 1982

1. Returned approved, provided the conditions defined in Enclosure (2) are complied with.

2. The preliminary environmental assessment will be brought before the next meeting of the Environmental Enhancement/Environmental Impact Review Board for review and approval by the Board members.

J. T. MARSHALL

Copy to: CG, COMCABEAST CO, MCAS(H), NR (S-4)



## NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION Marine Corps Base Camp Lejeune, North Carolina 28542

NREAD/JIW/jc 11000 23 Nov 1982

From: Director

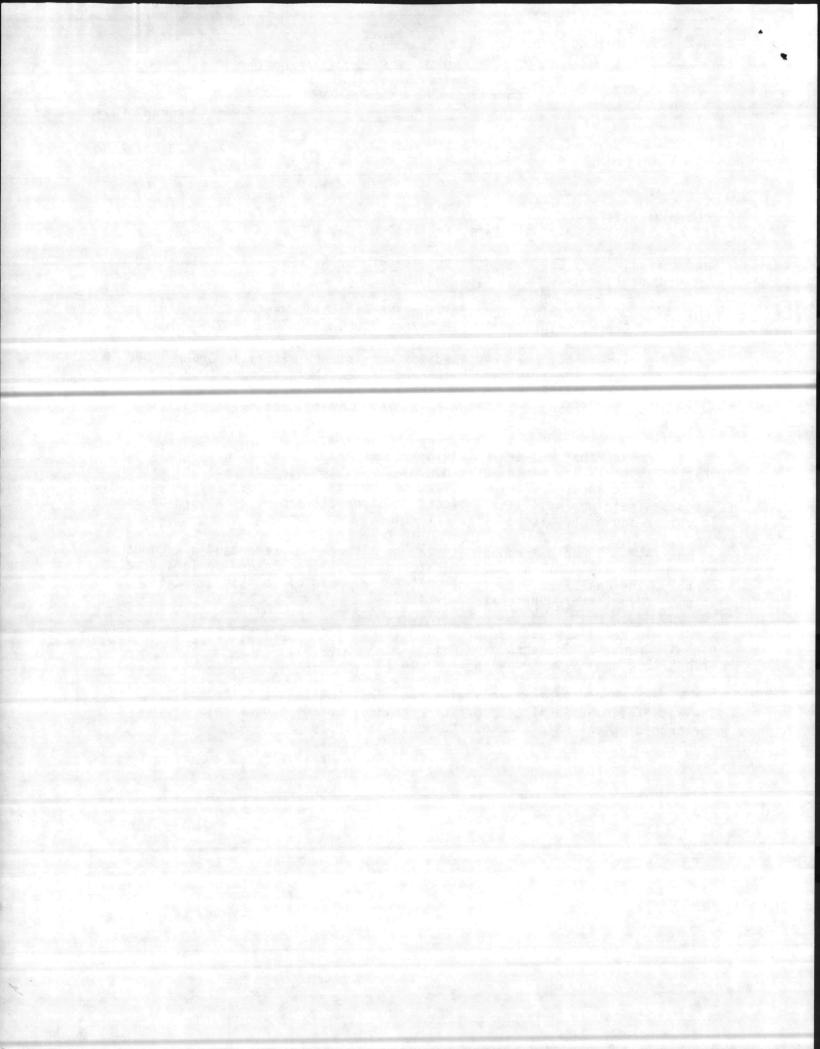
To: Assistant Chief of Staff. Facilities

Subj: Preliminary Environmental Assessment for AVELEX 1-83 TLZ Bluebird Operations; comments concerning

Encl: (1) CG. 2d Marine Aircraft Wing FMF Atlantic, Marine Corps Air Station, Cherry Point, NC 1tr 15/BM/bew 11000 of 22 Nov 1982

- 1. The enclosure has been reviewed for consistency with Base Order 11000.1A. Based on information provided in the enclosure, there appears to be no significant environmental impact with the proposed subject training. It is recommended the proposed training be approved if the following conditions are met:
- a. Ensure that shower and field kitchen are located on well-drained soil that is suitable for waste water disposal. Waste water disposal pits/trenches should not be located within 100 feet of surface water (pond, stream, marsh). The Base Training Facilities Officer has Base soil maps that should be used in shower and field kitchen site selection.
- b. All oil and hazardous material spills will be reported in accordance with BO 11090.1B. All oil contaminated soil will be cleaned up in a timely manner. The Base Fire Department will be informed of the kind, location and volume of fuel stored prior to exercise.
- c. There is a protected archeological site on the south side of the TLZ Bluebird runway. The archeological site is adjacent to the momat runway at Grid 874257 and is marked with signs on the ground.
- 2. No ground disturbing activities are permitted in the archeological site. The Base Training Facilities Officer can provide additional information on the archeological site and restrictions that apply.

J. I. WOOTEN





### UNITED STATES MARINE CORPS

#### MARINE WING SUPPORT GROUP 27

### SECOND MARINE AIRCRAFT WING, FLEET MARINE FORCE, ATLANTIC MARINE CORPS AIR STATION, CHERRY POINT, NORTH CAROLINA 28533

3/MRH/dml 11000 19 Nov 1982

From: Commanding Officer

To: Commanding General, Marine Corps Base, Camp Lejuene, NC 28542

Via: Commanding General, Second Marine Aircraft Wing

Subj: Preliminary Environmental Assessment, TLZ Bluebird Operation

Ref: (a) MCB BO 11000.1A, MAIN/DDS/th, dtd 6 May 1981

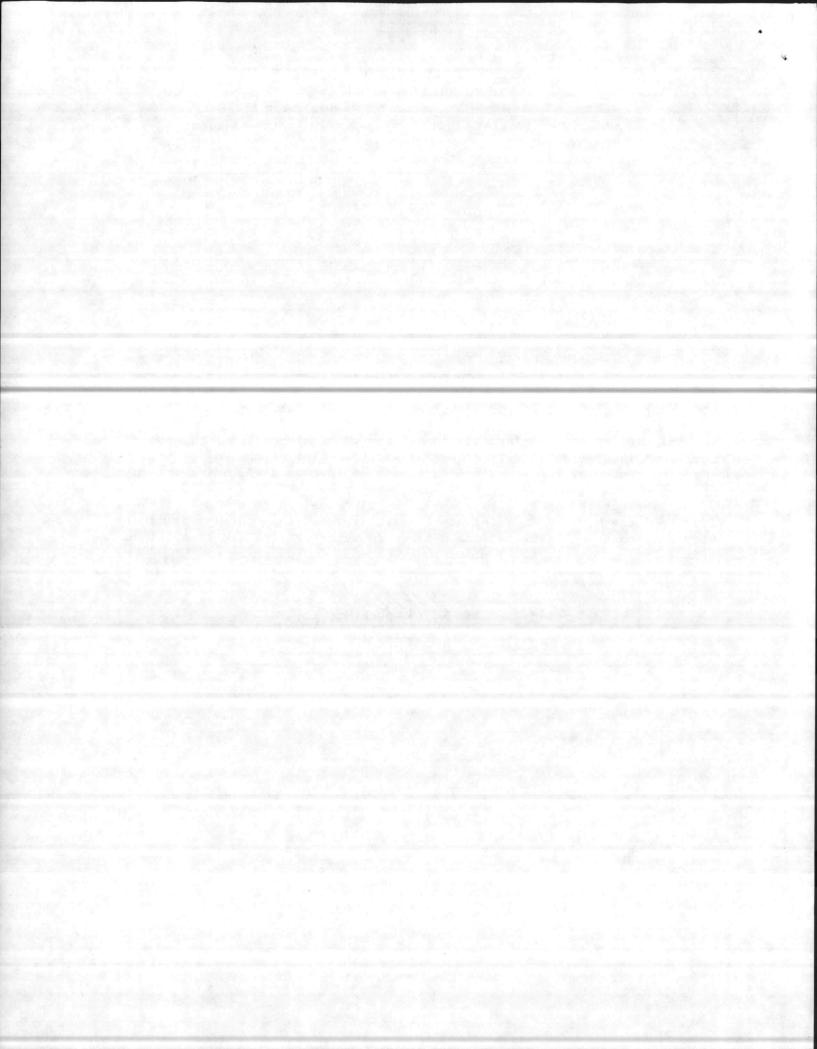
(b) Second MAW 051549Z Nov 82

(c) WES-27 ltr 3/WGL/add, 3000, dtd 15 Jul 1982

Encl: (1) Preliminary Environmental Assessment, TLZ Bluebird

- 1. Enclosure (1) is submitted in accordance with reference (a) to support operations identified in references (b) and (c). The water and TAFDS operations requested by reference (c) have been approved and the units are in place.
- 2. It is requested that Enclosure (1) be maintained on file. Operations similiar to these defined in reference (b) are expected to occur approximately every six months. The operations defined in reference (c) are to continue indefinitely.

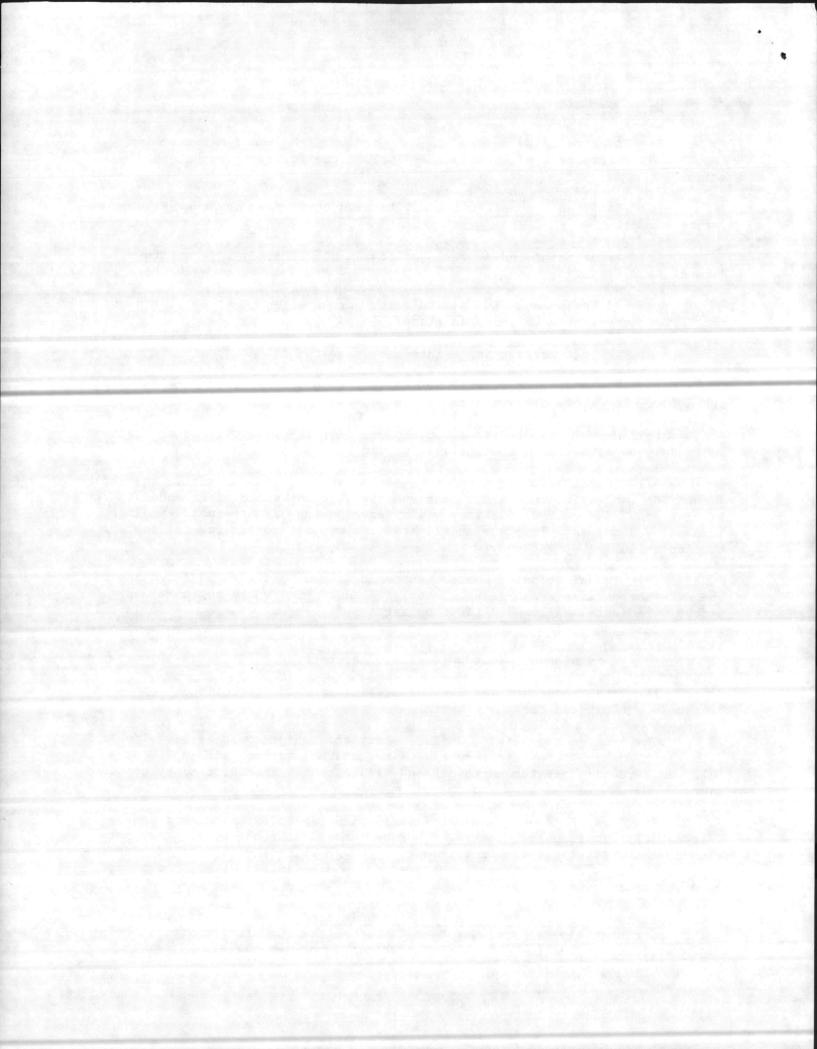
By direction



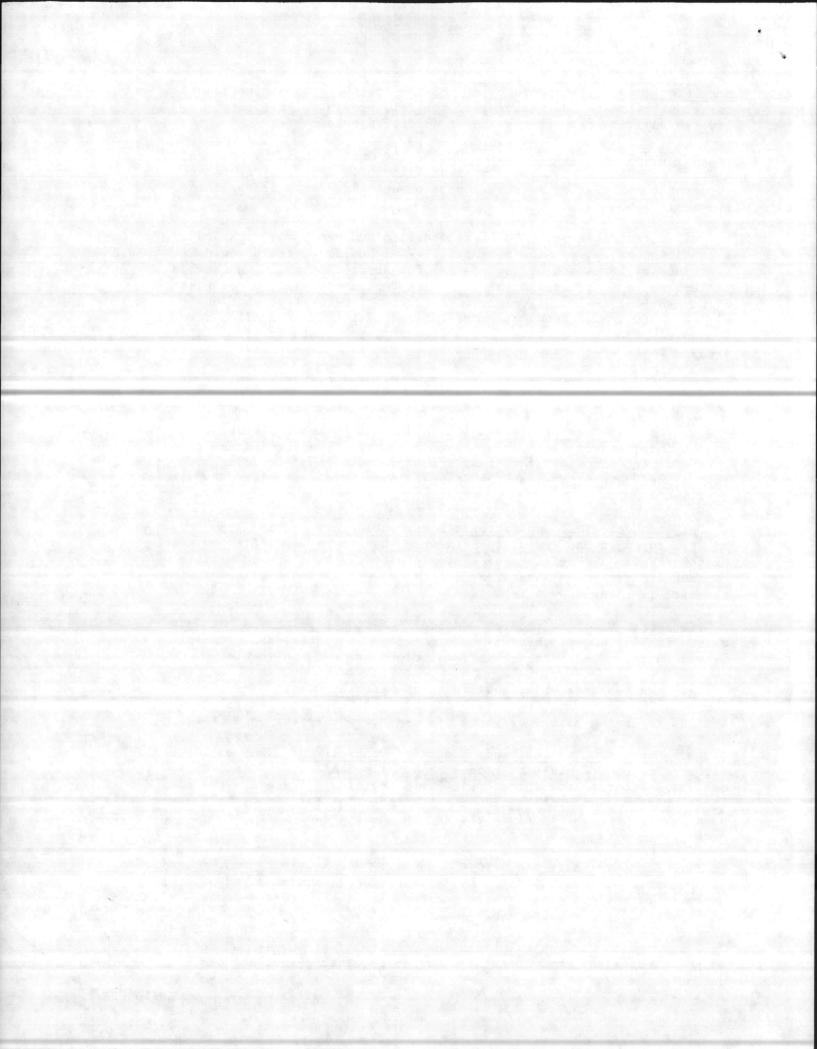
### PRELIMINARY ENVIROMENTAL ASSESSMENT, TLZ BLUEBIRD

### 1. Action/Project Description

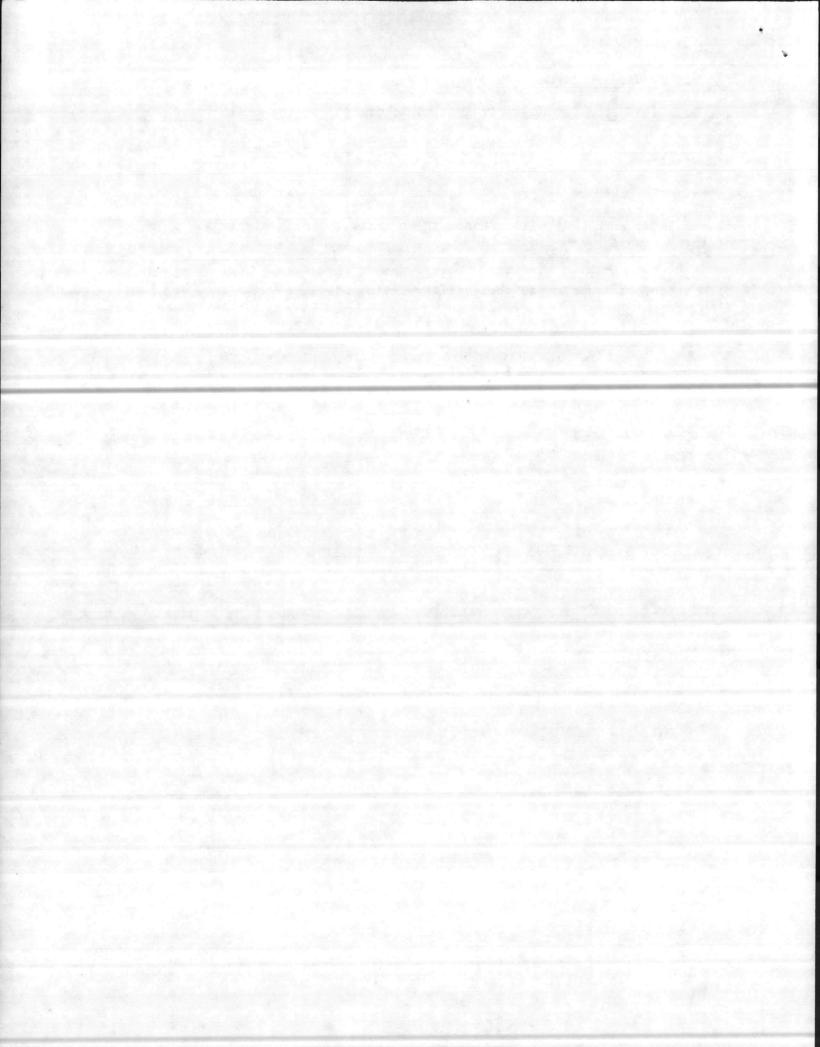
- a. TLZ Bluebird is to be used in conjunction with Second MAW exercise AVELEX 1-83). Expected utilization may include the following structures/operations.
- (1) TAFDS unit near the taxiway between the runway and the skijump (existing berms).
- (2) Water point and shower facility on one of ponds adjacent to Mile Hammock Road (existing site).
- (3) Billeting area for six to forty personnel in the tree line near the TAFDS berms (three CP tents in place).
  - (4) Vehicle parking and maintenance near the billeting area.
- (5) Field generators will be utilized to power billeting and working areas (two generators are inplace).
- (6) Mess hall for upto 150 personnel near the billeting area. This would only be established and utilized during an AVELEX period.
- (7) Installation of a 96' x 96' AM-2 landing pad adjacent to the ski jump. The taxiway between the runway and the ski jump would be extended to the landing pad. The extended taxiway would serve as the TAFDS refueling points. This pad would remain in place indefinitely to support continuing helicopter/harrier refueling operations.
- (8) Installation of Momat to provide Harrier hides as an extension of the existing parking area. Approximately 64 Momat kits would be installed (35 pieces were installed/removed for the last AVELEX). The Momat would be installed for the duration of the AVELEX exercise and then removed.
  - (9) A maintenance tent adjacent to the harrier hide installation.
- b. The water point and TAFDS sites are in place and operational. No change is anticipated for those units.
- c. The landing pad site is a flat, sandy area which would require limited earth work, but no tree removal. Alternative locations within TLZ Bluebird would require greater earthwork and significantly greater taxiway constrution.
- d. The first half of the Momat installation was accomplished during the last AVELEX, consequently, no tree or brush removal is required for that portion of the installation. The site survey for the circular portion of hide indicates no large tree removal is required, although limited brush removal and leveling operations will be required.
- 2. <u>Consideration of Alternatives and Site Selection</u>. TLZ Bluebird has been used repeatedly for similiar operations. Other comparable sites are also being utilized. Therefore, no alternative sites were evaluated.

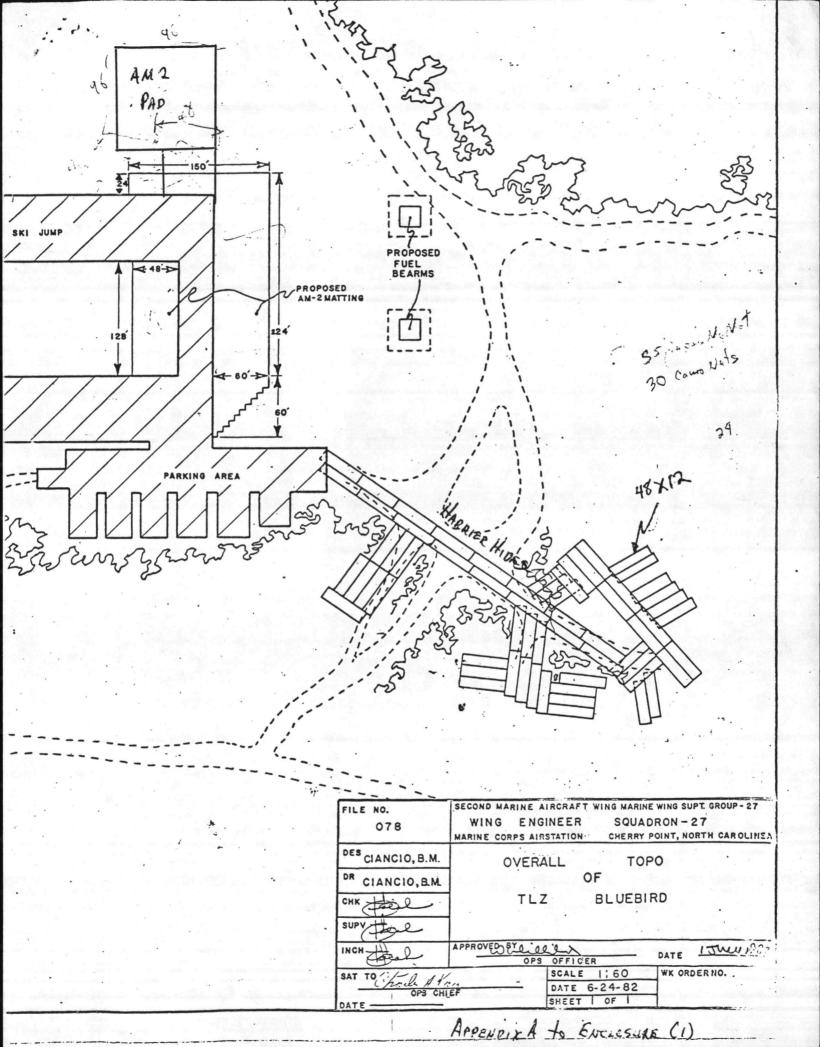


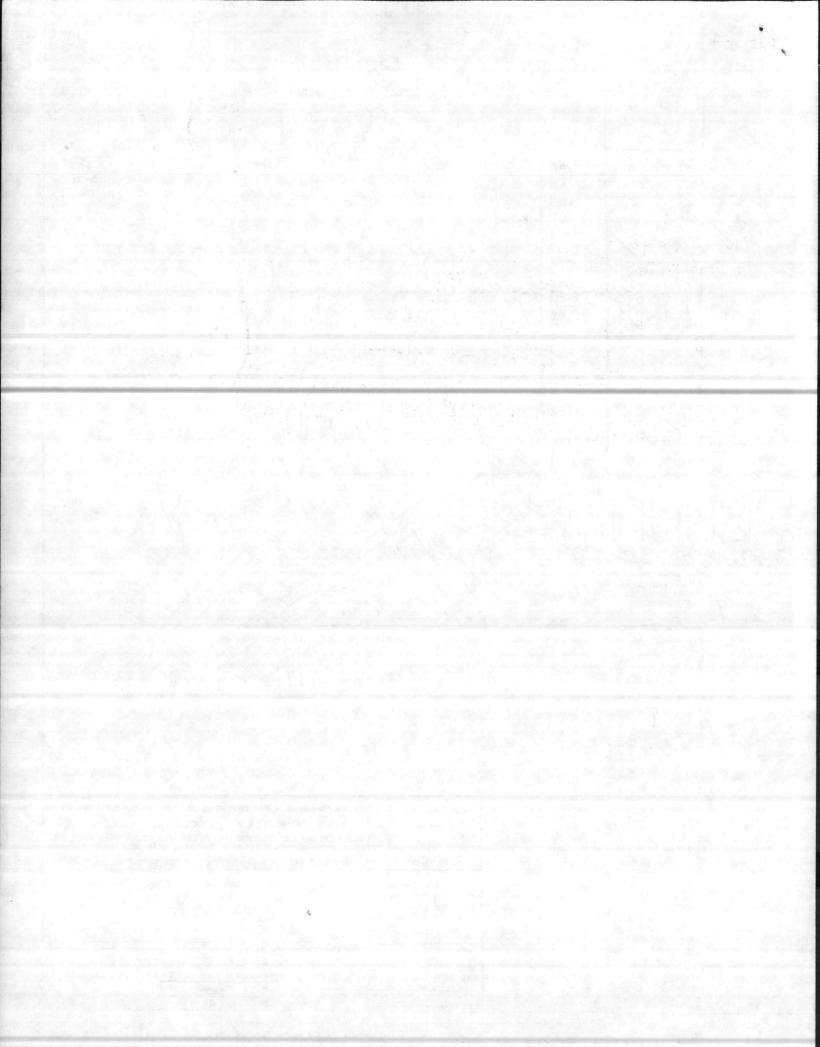
- 3. Compliance with Federal, State and Local Environmental Regulations and Guidelines. The applicability of the following considerations and the proposed means and measures to control, prevent or mitigate adverse environmental effects are as described below.
- a. Endangered Species Act. Use of the Action areas by endangered species of animals appears to be insignificant. This project has no apparent beneficial or adverse impact on any endangered or threatened species.
- b. Clean Water Act. The level terrain and sandy soil results in a condition of low erosion potential. Fuel spills or leaks would be contained by berms and/or "quick-dry" for absorbtion which would then be removed to a disposal site. The Fire Department will be notified of any spills. A 100 ft (plus) buffer zone of natural vegetation will be left around ponds/streams. Waste water will be drained into a properly prepared soakage pit to prevent water contamination. These areas will be adequately protected.
- c. <u>Clean Air Act</u>. Not applicable. No significant discharge of air pollutants.
- d. Coastal Zone Management Act. There is no known direct or indirect impact on tidal marshes, beaches or other protected areas other than aircraft noise. Due to past approved use of this training site, is has been determined that the Coastal Zone Management Act (CZMA) in not applicable.
- e. Archeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on State or National Registers of historic sites. There are no visible remnant structures or homesites, artifacts, etc. which indicate that the site is covered by this Act. This Act is not applicable.
- f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) above, there is no significant potential for sediment leaving site. Therefore, these regulations are not applicable.
- g. <u>Hazardous Material and Hazardous Waste Disposal</u>. No hazardous material will be used. The current State and Federal Regulations regarding hazardous waste disposal do not appear applicable.
- h. Protection of Wet Lands Executive Order 11990. The small ponds on either side of TLZ Bluebird Access road, Mile Hammock Bay Road, will be used as a water source for subject field training. These are the only Wetlands which the proposed action has the potential for impacting. There will be a 100 foot (Plus) barrier left around these areas. The ponds are adequately protected, as required by the Executive Order.
- i. Sanitary Waste and Refuse Disposal. Refuse (ie., cans, paper, etc.) will be collected by using personnel and disposed of at an approved refuse container at the sanitary landfill. Port-a-Johns will be utilized to dispose of sanitary waste.
- j. <u>Discuss Other Regulations Applicable</u>. The proposed actions do not involve any environmental regulations other than those discussed above.



- k. Permit Requirements. None.
- 1. Site Map. See Appendix A to enclosure (1) of the basic letter.
- 4.  $\underline{\text{How Does}}$  The Proposed Action Impact On Other Base Functions And  $\underline{\text{Mission?}}$
- a. TLZ Bluebird is properly identified on Base Training Map and instructions. The proposed modification will not adversely alter the training area. It will enhance the overall training missions of the Marine Air and Ground Team.
- b. This exercise will not significantly alter the features of TLZ Bluebird therefore training at the facility is in accordance with the Base Master Plan.







FAC/JGF/hf 5420/3 1 Dec 1982

FIRST ENDORSEMENT on CO, MWSG-27 1tr 3/MRH/pos 11000 of 19 Nov 1982

From: Commanding General

To: Commanding Officer, Marine Wing Support Group-27, 2d Marine Aircraft

Wing, FMFLant, Marine Corps Air Station, Cherry Point, NC 28533

Via: Commanding General, 2d Marine Aircraft Wing, FMFLant

Subj: Preliminary Environmental Assessment for MCOLF Oak Grove Operation

Enel: (2) Dir, NREAD 1tr NREAD/JIN/jc 11000 of 29 Nov 82

- 1. Returned, conditionally approved provided the conditions defined in enclosure (2) are complied with.
- 2. The preliminary environmental assessment will be brought before the next meeting of the Environmental Enhancement/Environmental Impact Review Board for review and final approval by the Board members.

J. T. MARSHALL By direction

Copy to: CG, COMCABEAST CO, MCAS(H), NR (S-4)

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### UNITED STATES MARINE CORPS

### MARINE WING SUPPORT GROUP 27

SECOND MARINE AIRCRAFT WING, FLEET MARINE FORCE, ATLANTIC MARINE CORPS AIR STATION, CHERRY POINT, NORTH CAROLINA 28533

3/MRH/pcs 11000 19 Nov 1982

From: Commanding Officer

To: Commanding General, Marine Corps Base, Camp Lejuene, NC 28542

Via: Commanding General, Second Marine Aircraft Wing

Subj: Freliminary Environmental Assessment, MCOLF Oak Grove Operation

Ref: (a) MCB BO 11000.1A, MAIN/DDS/th, dtd 6 May 1981

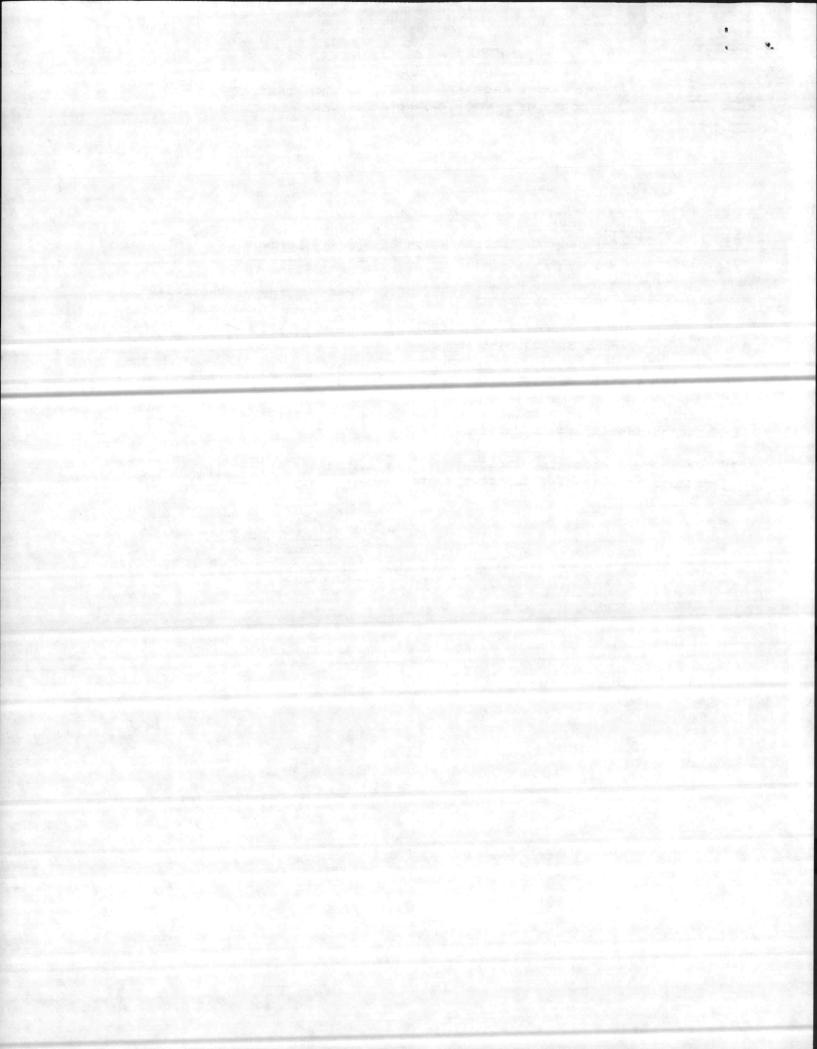
(b) Second MAW 051549Z Nov 82

Encl: (1) Preliminary Environmental Assessment, MCOLF Oak Grove

1. Enclosure (1) is submitted in accordance with reference (a) to support operations identified in reference (b).

2. It is requested that enclosure (1) be maintained on file. Similiar operations are expected to occur approximately every six months.

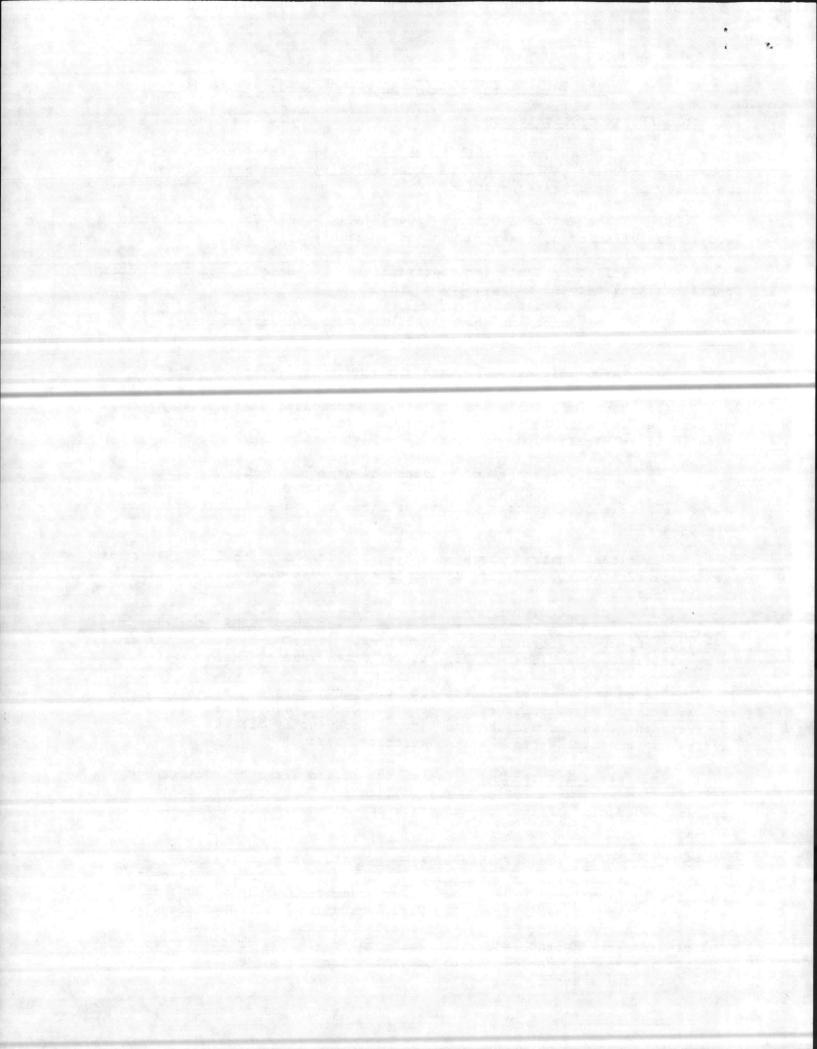
By direction



### PRELIMINARY ENVIROMENTAL ASSESSMENT, MCOLF OAK GROVE

### 1. Action/Project Description

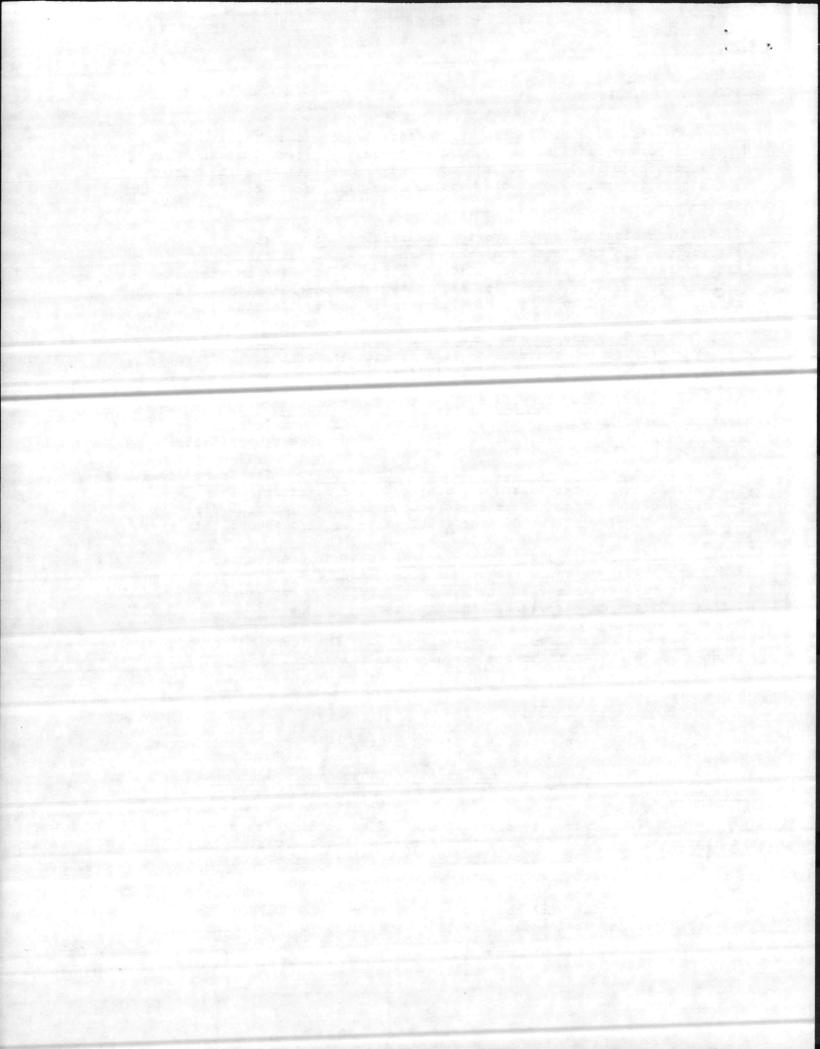
- a. The MCOLF Oak Grove Facility is to be used in conjunction with Second MAW exercise (AVELEX 1-83). Expected utilization may include the following structures/operations:
- (1) Placement of a Control Tower, TACAN, Radar Units, and Control Vans in the vicinity of the approach end of runway 05.
- (2) Billeting Tents for approximately 150 personnel in the Military Operations Area between runways 18/36 and 05/23.
- (3) Water Point and shower facility near Recreational Area #2 (same location as used in previous exercise).
  - (4) TAFDS unit near approach end runway 36 (existing berms).
- (5) Mess Hall for approximately 150 personnel near billeting area. One neal per day will be served from vaccum cans. Mess gear cleaning facilities would be required.
  - (6) Vehicle parking and maintenance near the billeting area.
- (7) Field Generators will be utilized to power all billeting and working areas.
- b. All sites required above have been utilized for similiar operations. within the last year, therefore no significant brush clearance or earth work is anticipated.
- 2. Consideration of Alternatives and Site Selection. MCOLF Oak Grove has been used repeatedly for similiar operations. Other comparable sites are also being utilized. Therefore, no alternative sites were evaluated.
- 3. Compliance with Federal, State and Local Environmental Regulations and Guidelines. The applicability of the following considerations and the proposed means and measures to control, prevent or mitigate adverse environmental effects are as described below.
- a. Endangered Species Act. Use of the Action areas by endangered species of animals appears to be insignificant. This project has no apparent beneficial or adverse impact on any endangered or threatened species.
- b. Clean Water Act. The level cerrain and sandy soil results in a condition of low erosion potential. Fuel spills or leaks would be contained by berms and/or "quick-dry" for absorbtion which would then be removed to a disposal site. The Fire Department will be notified of any spills. A 100 ft (plus) buffer zone of natural vegetation will be left around ponds/streams. Waste water will be drained into a properly prepared soakage pit to prevent water contamination. These areas will be adequately proceeded.
- c. Clean Air Acz. Not applicable. No significant discharge of air pollutants.

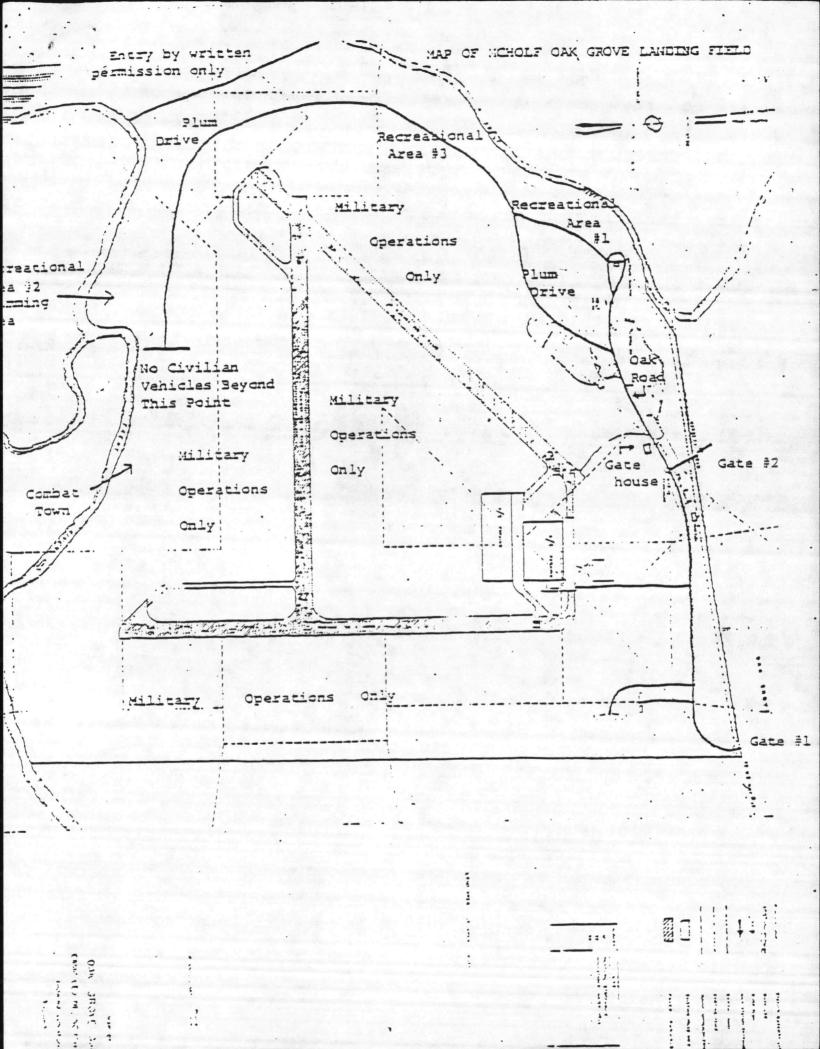


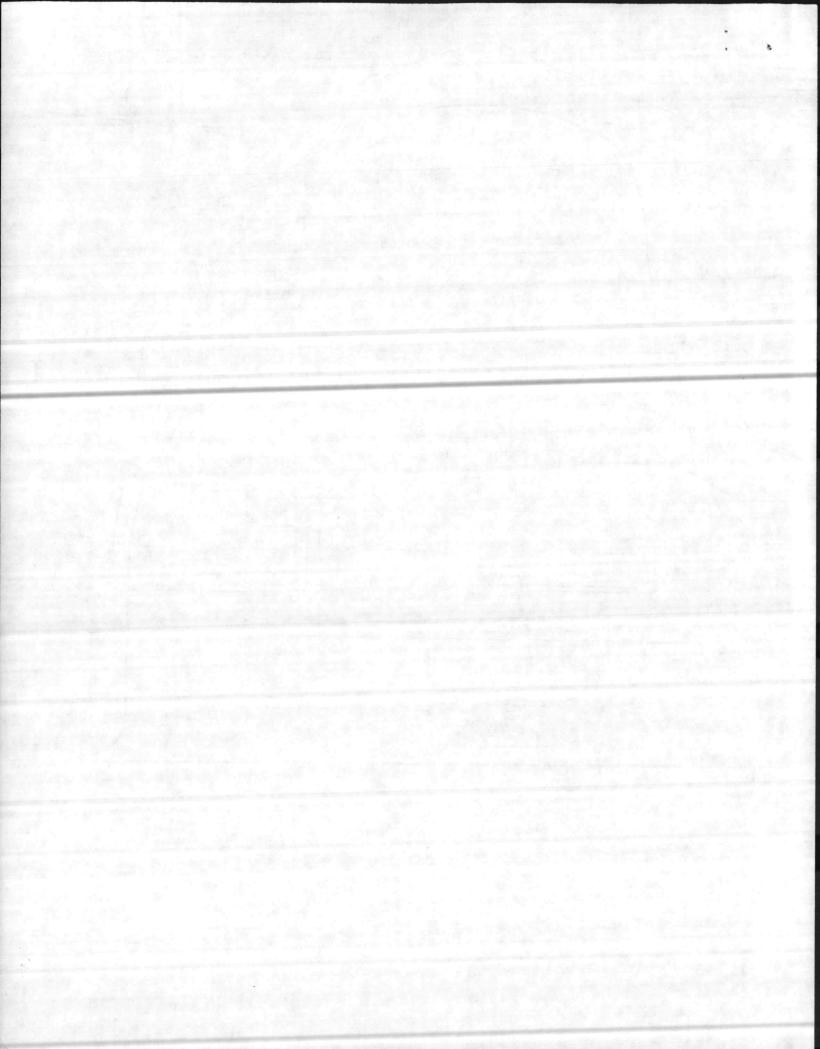
- d. Coastal Zone Management Act. There is no known direct or indirect impact on tidal marshes, beaches or other protected areas other than aircraft noise. Due to past approved use of this training site, is has been determined that the Coastal Zone Management Act (CZMA) in not applicable.
- e. Archeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on State or National Registers of historic sites. There are no visible remnant structures or homesites, artifacts, etc. which indicate that the site is covered by this Act. This Act is not applicable.
- f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) above, there is no significant potential for sediment leaving site. Therefore, these regulations are not applicable.
- g. <u>Hazardous Material</u> and <u>Hazardous Waste Disposal</u>. No hazardous material will be used. The current State and Federal Regulations regarding hazardous waste disposal do not appear applicable.
- h. Protection of Wet Lands Executive Order 11990. The Trent River will be used as a water source for subject field training. This is the only Wetlands which the proposed action has the potential for impacting. There will be 100 foot (PLUS) barrier left around this area.
- i. Sanitary Waste and Refuse Disposal. Refuse (ie., cans, paper, etc.) will be collected by using personnel and disposed of at an approved refuse container at the sanitary landfill. Port-a-Johns will be utilized to dispose of sanitary waste.
- j. Discuss Other Regulations Applicable. The proposed actions do not involve any environmental regulations other than those discussed above.
  - k. Permit Requirements. None.
  - 1. Site Mao. See Appendix A to enclosure (1) of the basic letter.

## 4. How Does The Proposed Action Impact On Other Base Functions And Mission?

- a. MCOLF Oak Grove, is properly identified on Base Training Map and instructions. The proposed modification will not adversely alter the training area. It will enhance the overall training missions of the Marine Air and Ground Team.
- b. This exercise will not alter the features of MCOLF Cak Grove, therefore training at the facility is in accordance with the Base Master Plan.







### NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION Marine Corps Base Camp Leieune, North Carolina 28542

NREAD/JIW/jc 11000 29 Nov 1982

From: Director

Assistant Chief of Staff, Facilities To:

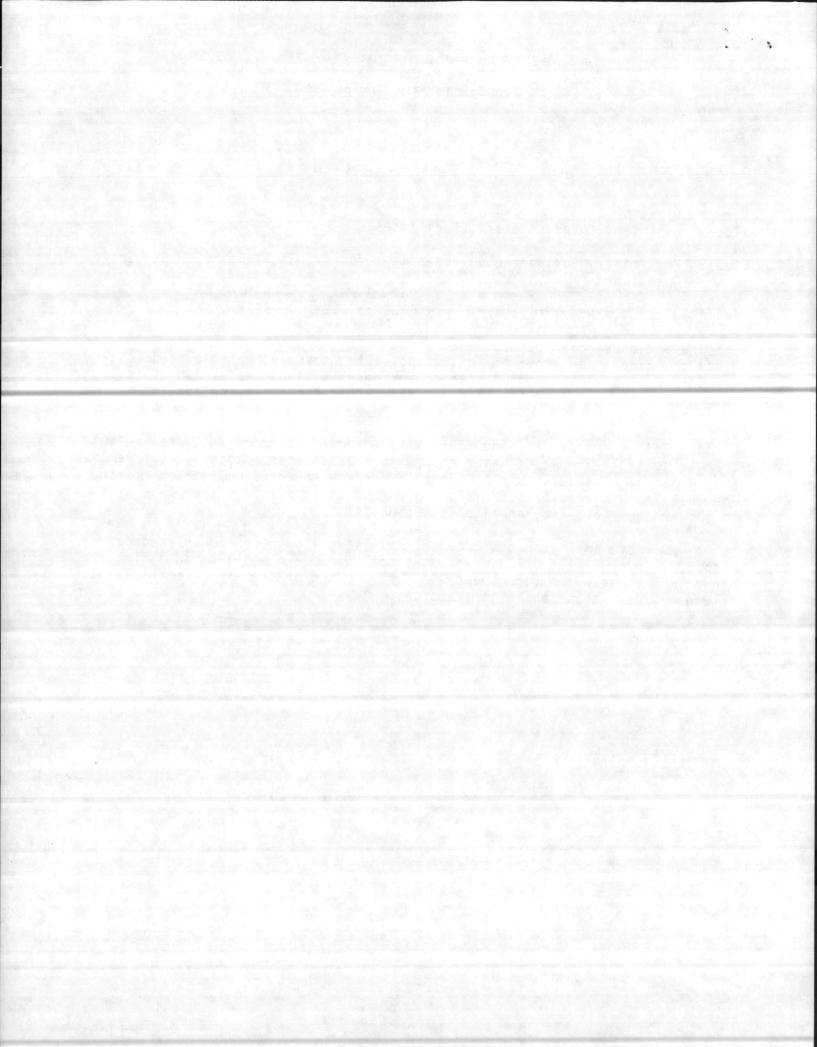
Subj: Preliminary Environmental Assessment for AVELEX 1-83, MCOLF Oak Grove

Operations

Encl: (1) CO, MWSG-27 1tr 3/MRH/pes 11000 of 19 Nov 1982

1. The enclosure has been reviewed for consistency with Base Order 11000.1A. Based on information provided in the enclosure, there appears to be no significant environmental impact with the proposed subject training. It is recommended the proposed training be approved if the following conditions are met:

- a. Ensure that shower and field kitchen are located on well-drained soil that is suitable for waste water disposal. Waste water disposal pits/trenches should not be located within 100 feet of surface water (pond, stream, marsh). The Base Training Facilities Officer has Base soil maps that should be used in shower and field kitchen site selection.
- b. All oil and hazardous material spills will be reported in accordance with BO 11090.1B. All oil contaminated soil will be cleaned up in a timely manner. The Base Fire Department will be informed of the kind, location and volume of fuel stored prior to exercise. J. J. Wool=



From: Commanding General

To: Commanding General, Marine Corps Base, Camp LeJeune,

N.C. 28542

Subj: Preliminiary Environmental Assessment for AVELEX 1-83,

MCOLF Oak Grove Operations

Ref: (a) MCB BO 11000.1A MAIN/DDS/th dtd 6 May 1982

(b) CG SECOND MAN 051549Z Nov 82

Encl: (1) CO, MWSG-27 ltr 3/MRH/pes 11000 dtd 19 Nov 1982

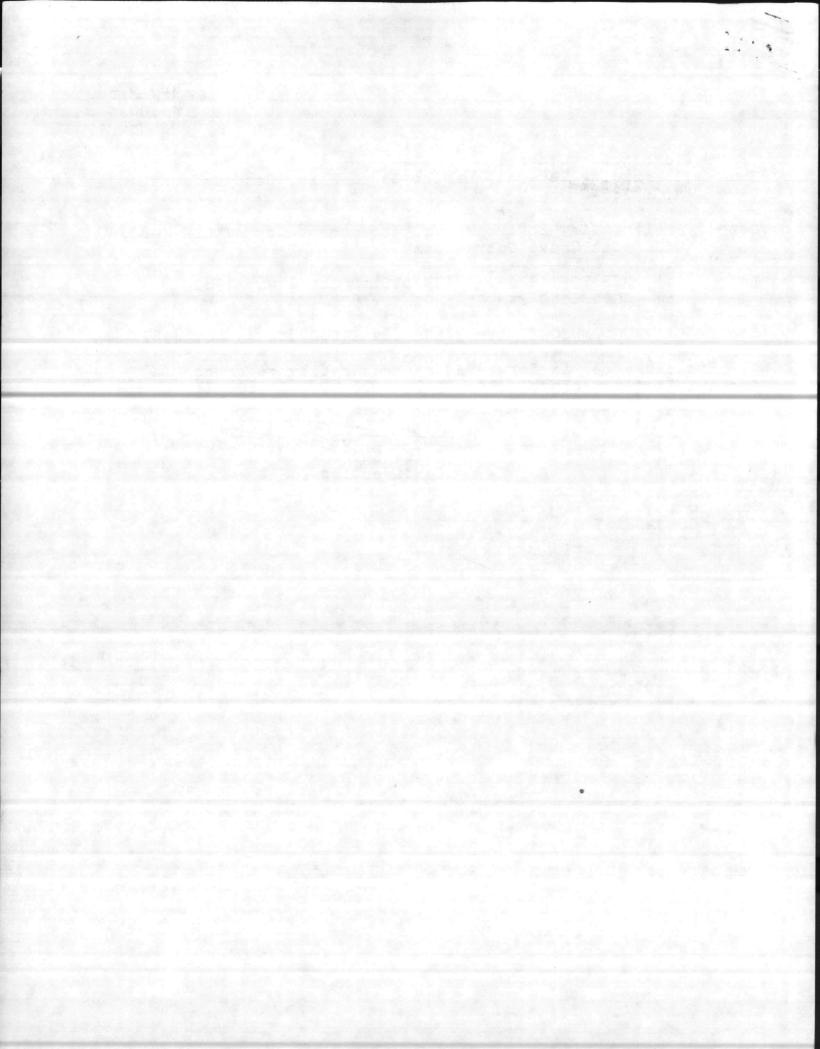
1. Enclosure (1) is Forwarded as required by reference (a) for AVELEX 1-83 scheduled for 5 - 10 December 1982.

E. L. BLOXOM By direction

Copy to:

CG, COMCABEAST

CO, MCAS, New River



alo de la companya de

MAIN/DDS/th 16475 SEP 2 4 1981

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities (Attn: Chairman, Environmental

Impact Review Board)

Subj: Preliminary Environmental Assessment (PEA) for Tactical Fuel Farm at

TLZ Falcon

Ref: (a) BO 11000.1A

(b) On-site Visit of Bulk Fuel Farm Site at TLZ Owl by CAPT Norman, Bulk Fuel Company, and Mr. D. Sharpe, BMainDiv, on 21 Sep 1981

(c) BO 11090.1B

Encl: (1) CO 6th Mar, 2dMARDIV, 1tr 4/TRM/gjg of 23 Sep 1981

1. The subject PEA has been reviewed, as requested, by enclosure (1). The subject PEA satisfactorily addresses requirements of reference (a).

- 2. Based on observations made during reference (b), the spill prevention and contingency provisions of the subject PEA appear adequate to ensure compliance with reference (c).
- 3. It is recommended the subject PEA, which addresses one element of the 29 September 9 October 1981 training exercise by RLT-6, be approved.
- 4. Point of contact is Mr. Julian Wooten, Natural Resources and Environmental Affairs Branch, extension 2083.

F. H. MOUNT

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### UNITED STATES MARINE CORPS 6th Marines, 2nd Marine Division, FMF Camp Lejeune, North Carolina 28542

4/TRM/gjg 4400 23 Sep 1981

From: Commanding Officer

To: Commanding General, Marine Corp Base, Camp Lejeune, N.C. 28542

Via: Commanding General, 2nd Marine Division (Attn: G-3)

Subj: Preliminary Environmental Impact Assessment for Bulk Fuel Tank Farms

Encl: (1) Preliminary Environmental Impact Assessment for Bulk Fuel Tank Farm; ltr of, from RLT-6

1. Forwarded.

2. It is requested that approval be granted as soon as possible due to fuel delivery by 25 Sep 1981.

> N. A. CHANDLER By direction

> > 3/PHR/sms 4400 23 Sep 1981

FIRST ENDORSEMENT on CO, 6th MAR 1tr 4/TRM/gjg over 4400 dtd 23 Sep 1981

From: Commanding General

To: Commanding General, Marine Corps Base, Camp Lejeune, N.C.

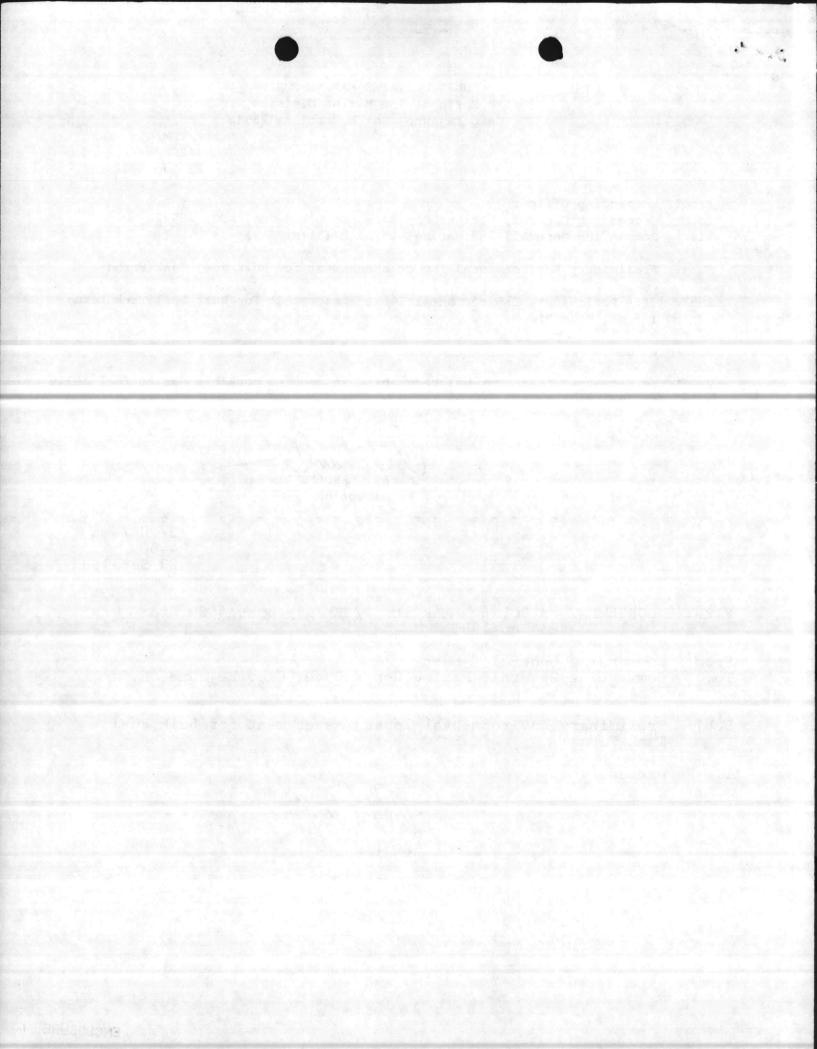
28542

Subj: Preliminary Environmental Impact Assessment for Bulk Fuel

Tank Farms

1. Forwarded.

By direction

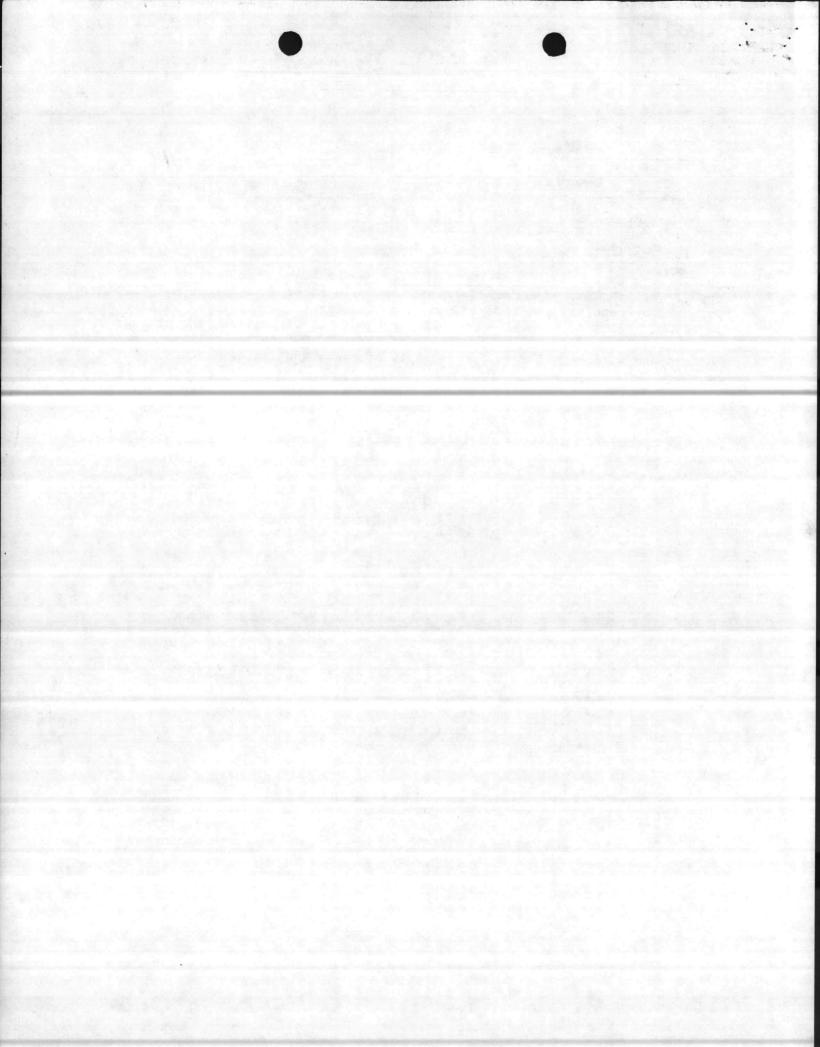


### 1. Action/Project Description

- a. Project Description. Three Amphibious Assault Fuel Systems (AAFS) Tank Farms are required for support of an RLT-6 Amphibious Exercise to be conducted during the period 23 September 1981 through 9 October 1981. Two tank farms will store 105,000 gallons of diesel fuel #2 and the third tank farm will store 35,000 gallons of MOGAS.
- b. Tank Farm Layout (See Attached Site Map and Tank Farm Layout). Tank
  Farm #1 will consist of three 20,000 gallon collapsible fuel bladders. All diesel
  fuel will be received and issued from this tank farm. Tank Farm #2 will consist of
  six 20,000 gallon collapsible fuel bladders and will be utilized for storage of
  diesel fuel. Tank Farm #3 will consist of three 20,000 gallon collapsible fuel
  bladders and will be utilized for receipt, storage, and issue of MOGAS.
- c. Tank Farm Installation. Each 20,000 gallon collapsible fuel bladder will be individually bermed. The berm will be capable of holding a minimum of 1½ times the amount of fuel stored within the berm. A nonpermeable liner will be placed under each fuel bladder. In addition, contingency containment berms will be constructed as indicated on the attached Tank Farm Layout.
- d. Receipt and Issue of Fuel. All fuel will be received from commercial refuelers during the period 25-30 September 1981. Fuel will be issued primarily to tactical refuelers (1200 and 5000 gallon capacity), during the period 30 September through 9 October 1981.

### 2. Consideration of Alternatives and Site Selection.

- a. Alternatives. Logistical and fiscal restraints require that the total fuel quantities be prepositioned prior to 30 September 1981. There are no permanent fuel storage locations capable of storing the required quantities within the constraints indicated above. Utilization of the AAFS tank farms is also considered as essential training for MOS. 1391, Bulk Fuelman. Utilization of the AAFS tank farms appears to be the only realistic alternative.
- b. Site Location Requirements. All areas within the tank farms must be clear of debris and vegetation. The terrain within the tank farms must be level. It is desirable that the surrounding terrain be level to assist in containment should a spill occur.
- c. Site Selection. TLZ Falcon (Grid Coordinates 913288) has been selected as the site for all tank farms. TLZ Falcon was chosen considering the scheme of maneuver and availability of desirable training areas. On 21 September 1981, Bulk Fuel Company personnel and personnel from the Natural Resources and Environmental Iffairs Division, Base Maintenance Department reviewed the site with consideration of technical operation of the tank farms and significant environmental constraints. The site is considered acceptable from both aspects. No alternative sites were identified consequently, none were evaluated. Initial site preparation will be required to the areas within the tank farms and to stockpile sufficient soil for several construction.



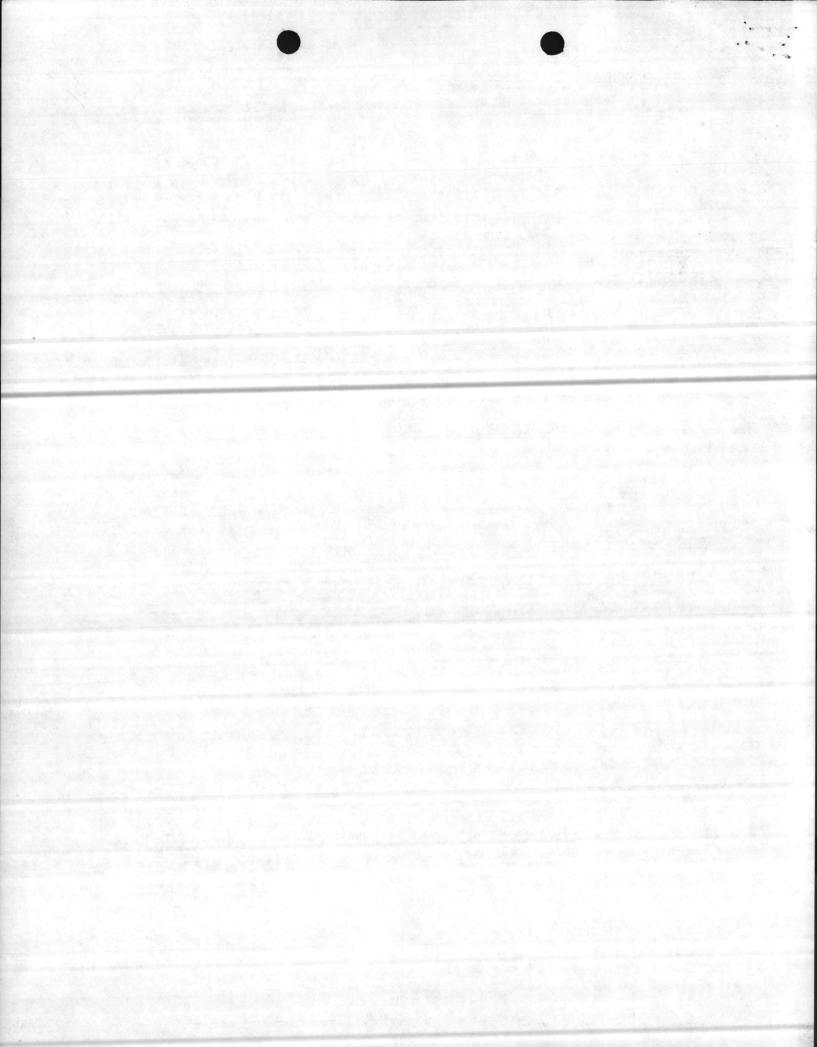
3. Compliance With Federal, State and Local Environmental Regulations and Guidelines

. 44 2 11

a. Endangered Species. Use of the proposed site by endangered species of animals (primarily the alligator and red-cockaded woodpecker) appears to be non-existent. The project has no apparent beneficial or adverse impact on any endangered or threatened species.

- b. Clean Nater Act. The water table is at a sufficient depth to prevent contamination from infiltration should a spill occur. The primary concern will be the feeder streams of Gillets Creek located to the southeast and northwest of the site (See Site Map). The level terrain and contingency containment berms should allow containment of any spill prior to reaching either of these feeder streams. Strict compliance of the procedures for spill reporting, containment and cleanup as indicated in BO 11090.1B will be enforced. A small dozer/scooploader will be on site at all times as a contingency for preparation of additional containment berms if required. Additionally, personnel and hand tools will be on hand for assisting in containment if required.
- c. Clean Air Act. No significant discharge of air pollutants will occur unless there is an accidental fire. All applicable fire prevention and fire safety regulations will be strictly enforced and adhered to.
- d. Coastal Zone Management Act (CZMA). There is no direct or indirect impact on tidal marshes, beaches or other protected areas.
- e. Archaeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on State or National registers of historic sites. There are no visible remnant structures of homesites, artifacts, etc. which indicate that the site is covered by this Act. The area has been subject to previous disturbance from training operations.
- f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) and 3(d) above, there is no significant potential for sediment leaving the site.

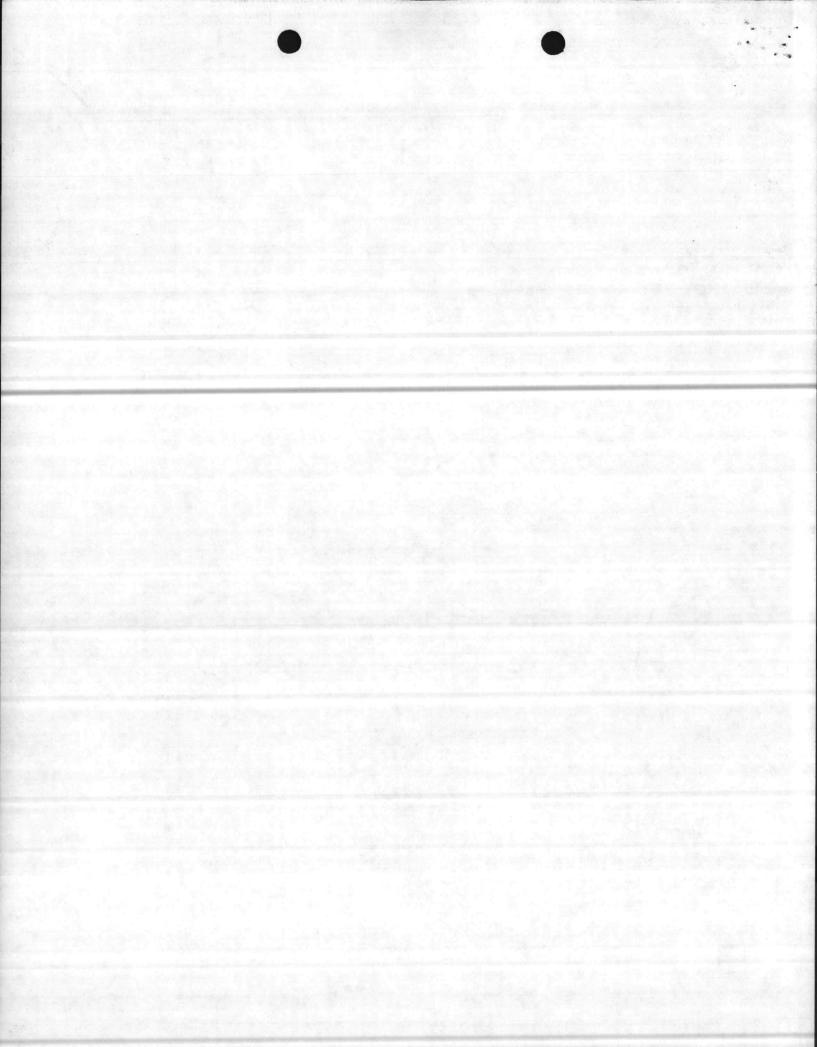
  Therefore these regulations are not applicable.
- g. Hazardous Materials and Hazardous Jaste Disposal. Spill containment and cleanup procedures outlined in BO 11090.1B will be strictly adhered to. Any fuel saturated soil will be removed to the sanitary landfill. Empty 20,000 gallon fuel bladders will be maintained on site for storage of any contaminated fuels. Disposal of any contaminated fuels will be in accordance with BO 11090.1B.
- h. Protection of Wetlands Executive Order 11990. There will be no disturbance of wetlands. Contingency containment to prevent any fuel from entering wetlands will be accomplished as discussed in 3(b) above.
- i. Sanitary Waste and Refuse Disposal. Sanitary waste will be disposed of utilizing straddle trenches. Use of straddle trenches has been authorized for this area with a maximum depth of 3% feet. Refuse (i.e., cans, papers, etc.) will be collected by using personnel and disposed of at an approved refuse container.
- j. Cther Applicable Regulations. Upon completion of the project, berms will be leveled and the terrain returned to its original configuration. The proposed action does not involve any environmental regulations other than those discussed above.



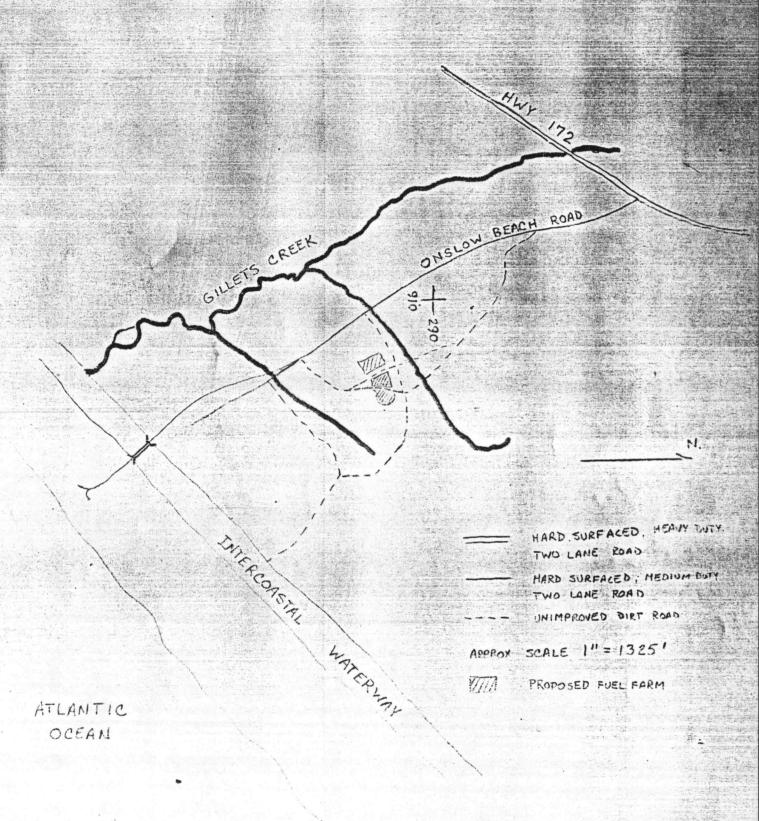
- k. Permit Requiments. None.
- 1. Site Man. See attached.
- 4. How Does the Proposed Action Impact on Other Base Functions and Missions? The site location is an approved and reserved training area. The utilization of the site during this period is in conjunction with training operations and will not detrimentally affect any Base functions or missions. Upon completion of the project, the site will be returned to its original configuration, therefore it will not impact on any future training, functions or missions.

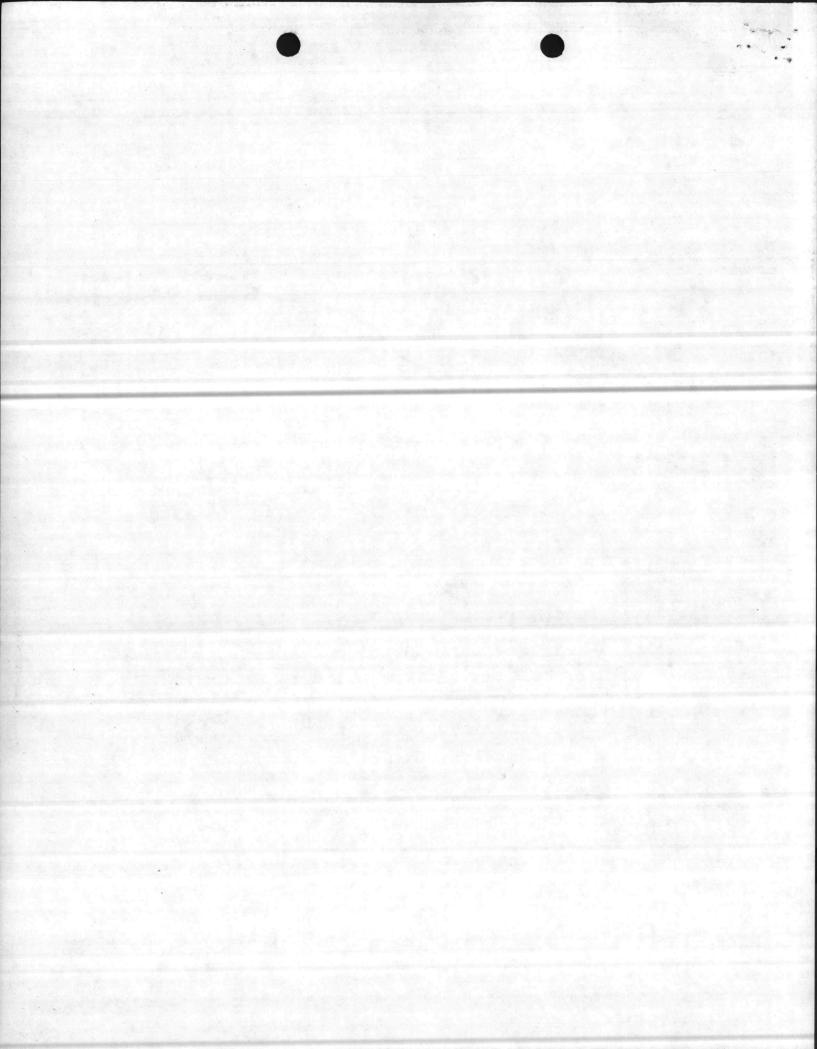
#### Attachments:

- (1) Site Map for Bulk Fuel Farm
- (2) Tank Farm Layout

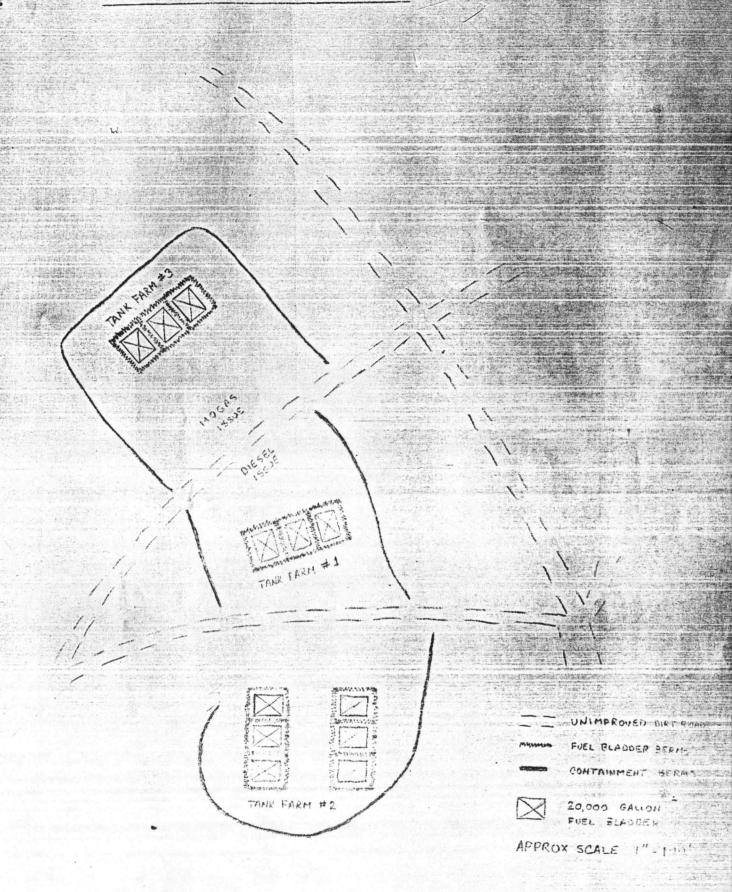


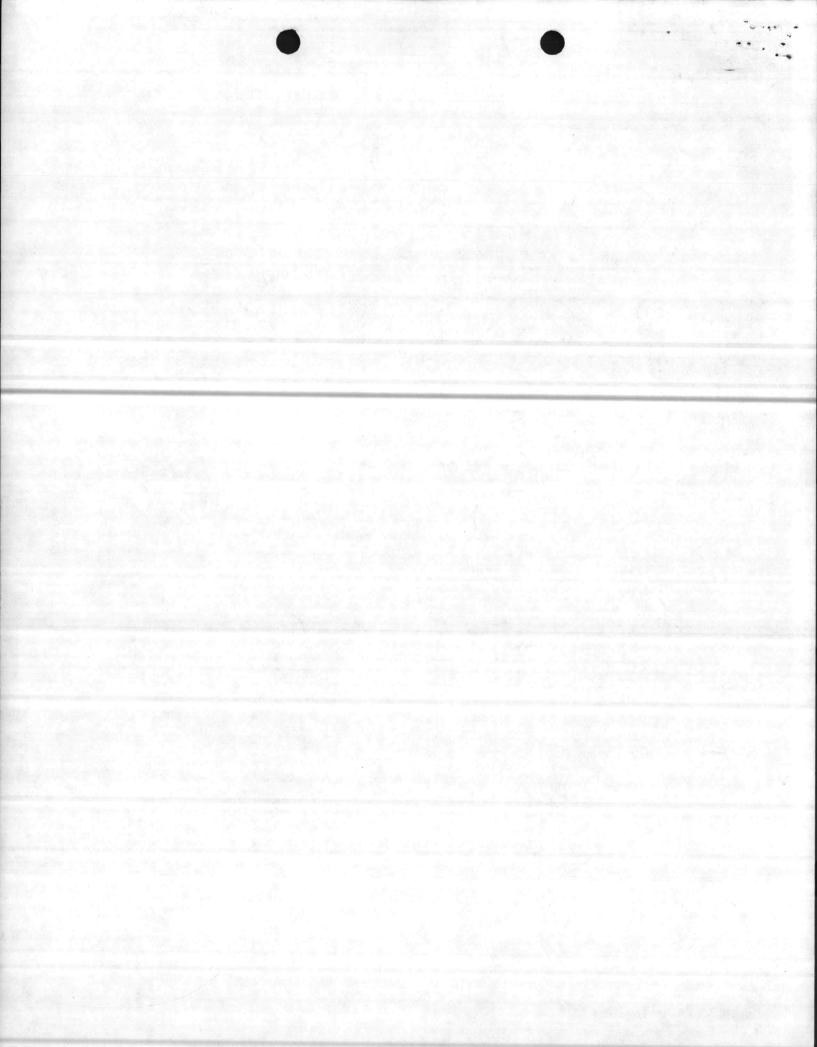
## SITE MAP FOR BULK FUEL FARM





TANK FARM LAYOUT





Training

HAIN/DDS/----APR 7 1982

From: Base Maintenance Officer, actilities (Attention: Chairman, Environmental To: Assistant Obd Board)

Subj: Preliminary Environmental Assessment (PEA) for Bulk Fuel Company
Temporary Recirculation Point

Ref: (a) BO 11000.1A

Encl: (1) CO Bulk Fuel Co, 8th Eng, 2d FSSC ltr 04/FCW/jst 4000 of 5 Apr 1982

1. The subject PEA provided by the enclosure has been reviewed for consistency with the reference.

2. It is recommended that the subject PEA be processed as submitted.

B. W. ELSTON Acting

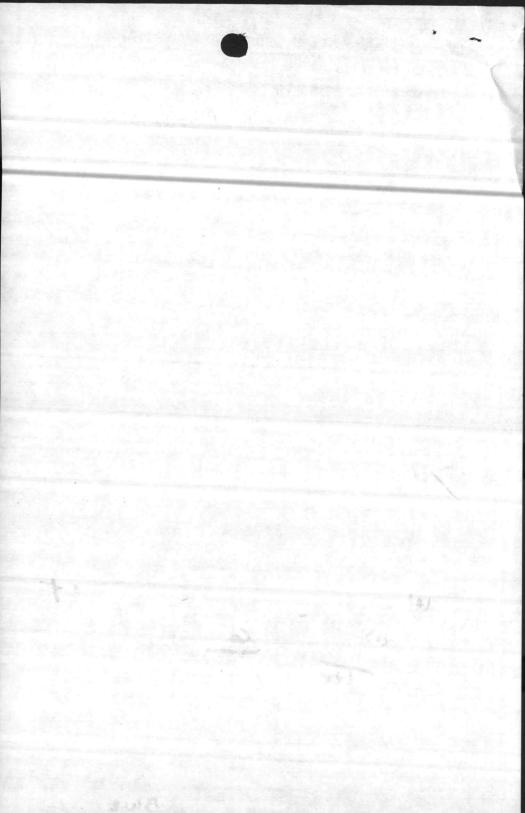
NATURAL RESOURCES AND ENVIRONMENL AFFAIRS BRANCH BASE MAINTENANCE BIVISION MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542 6 Agr 87 Date From: Director Subj:

1. Riviled PEA for ful "Form"

2. I grounde or Recirculation Point and prounde comments. If Allan tim Bmo To: Acls FACILIES (All Charmon, EIRB) Subject: Pieliminary Environnell assessment: (PEA)

for Bulk food Company Temperary Receipts from

Pel: B.O. 1100 D. 14 Enclosure Co Bulkfuel Co 84h EnG, 2dFSSG HTTF 04/FCW/jat 4000 of 5 April 82 1. The subject PEA Provided by the enclosure has been reviewed for Consistency with the Reference. 2. It is recommended that the Subject PEA be processed as submitted BWE



# ASSISTANT CHIEF OF STAFF, FACILITIES HEADQUARTERS, MARINE CORPS BASE

DATE 6ap 5

TO:

BASE MAINT O

PUBLIC WORKS O

COMM-ELECT O

DIR, FAMILY HOUSING

DIR, UNACCOMPANIED PERS HSG

BASE FIRE CHIEF

MOTOR TRANSPORT O

ATTN:

NREA

1. Attached is forwarded for info/action.

2. Please initial, or comment, and return all papers to this office.

3. Your file copy

"LET'S THINK OF A FEW REASONS WHY IT CAN BE DONE" SECOND ENDORSEMENT on CO, BFCo, 8th EngrSptBn 1tr DEN/sk over 4000 of 31 March 1982

From: Commanding General

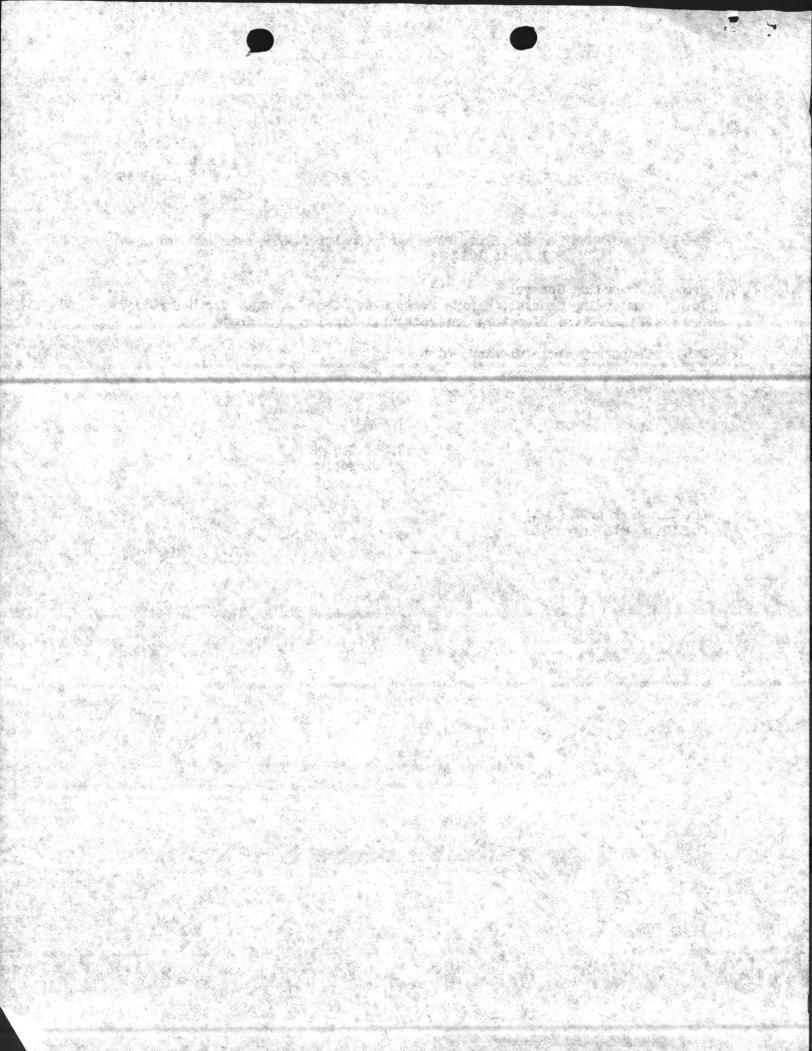
Commanding General, Marine Corps Base, Camp Lejeune, North Carolina 28542 (Attn: Director, Environmental Affairs Division) To:

Subj: Temporary Recirculation Point

1. Forwarded, requesting approval.

R. D. BOURQUE By direction

Copy to: CO, 8th EngrSptBn (S-4) CO, BFCo, 8th EngrSptBn



04/FCW/jat 4000 5 April 1982

FIRST ENDORSEMENT on CO Bulk Fuel Co 1tr DEN/sk over 4000 dtd 31 Mar 1982

From: Commanding Officer

To: Commanding General, Marine Corps Base, Camp Lejeune, North

Carolina 28542 (ATTN: MCB Environmental Officer)

Via: Commanding Officer, 2d Force Service Support Group (Rein),

Fleet Marine Borce, Atlantic, Camp Lejeune, North Carolina

28542

Subj: Temporary Recirculation Point

1. Forwarded, recommending approval.

2. After this project is completed the two old 5000 gallon re-fueler tanks will be shut down and carried to DPDO for proper disposition.

F. C. WINTER By direction La Nus Nation

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DEN/sk 4000 31 Mar 1982

From: Commanding Officer

To: Commanding Officer, SthEngrSpt Bn (S-4)

Subj: Temporary Recirculation Point

Encl: (1) Preliminary Environmental Impact Assessment

1. It is requested that authority be granted to construct and operate a temporary filtering site to reclaim 1,200 gallons of diesel fuel which has become contaminated with small particulate matter. Enclosure (1) is submitted as the preliminary environmental impact assessment for this project

D. E. NORMAN

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### PRELIMINARY ENVIRONMENTAL IMPACT ASCESSMENT FOR BULK FUEL FILTERING SITE

### 1. Action/Project Description

- a. Project Description. One 20,000 gallon tank is required for recirculation and reclaimation of contaminated fuel during the month of April 1982. The tank will hold 1,200 gallons of diesel fuel.
- b. Tank layout (See Attached Site Map and Tank Layout Man). The tank layout will consist of one 20,000 gallon collapsible fuel bladder. All diesel fuel will be received and issued from this tank.
- c. Tank Installation. The 20,000 gallon fuel bladder will be individually bermed. The berm will be capable of holding a minimum of 13 times the amount of fuel stored within the berm. A non-permeable liner will be placed under the bladder. In addition, contingency containment berms will be constructed as indicated on the attached Tank Layout.
- d. Receipt and Issue of Fuel. All fuel will be transferred from M-971 tankers currently located in a bermed area directly beside the proposed fuel recirculation site. Reclaimed fuel will be issued to tactical vehicles of the 8th Engineer Support Battalion.

### 2. Consideration of Alternatives and Site Selections

- a. Alternatives. Logistical and fiscal considerations require that the contaminated fuel be recovered if possible. There are no recirculation facilities in the FC-200 area at this time. Utilization of the 20,000 gallons tank and recirculation is considered as realistic training for MOS 1391, Bulk Fuel Man. The proposed site for the 20,000 gallons bladder appears to be the only realistic alternatives.
- b. <u>Site Location Requirements</u>. All areas within the tank area must be clear of debris and vegetation. The terrain within the area must be level. It is desirable that the surrounding terrain be level to assist in containment should a spill occur.
- c. Site Selection. The rear area in the FC-200 Equipment Lot (Grid Coordinates 873372) has been selected as the site for the recirculation operation. This area was chosen due to its immediate location next to the current fuel site. Initial site preparation will be required to stockpile sufficient soil for berm construction.
- 3. Compliance With Federal State and Local Environmental Regulations and Guidelines.
  - a. Endangered Species. Use of the proposed site by endangered species

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of animals (primarily the alligator and red-cockaded woodpecker) appears to be nonexistent. The project has no apparent beneficial or adverse impact on any endangered species.

- b. Clean Water Act. The water table is at a sufficient depth to prevent contamination from infiltration should a spill occur. The primary concern will be the intermittent stream which flows into Cogdels Creek, located to the north of the site. (See Site Map). The level terrain and containment berms should allow containment of any spill prior to reaching this stream. Strict compliance with the procedures for spill reporting, containment and clean-up as indicated in BO 11090.18 will be enforced. Dozers/Scooploaders are available at the site at all times, as a contingency for preparation of additional containment berms if required. Additionally, personnel and hand tools will be on hand for assisting in in containment if required.
- c. Clean Air Act. No significant discharge of air pollutants will occur unless there is an accidental fire. All applicable fire prevention and fire sefety regulations will be strictly enforced and adhered to.
- d. Coastal Zone Management Act (CZMA). There is no direct or indirect impact on tidal marshes, beaches or other protected areas.
- e. Archaeological and Historical Preservation Act. There are no structures in the immediate area which have been identified on State or National registers of historic sites. There are no visible remnant structures of homesites, artifacts, etc. which indicate that the site is covered by the Act. The area has been subject to previous disturbance from daily use.
- f. North Caroline Erosion and Sedimentation Regulations. As discussed in 3(b) and 3(d) above, there is no significant potential for sediment leaving the site. Therefore, these regulations are not applicable.
- g. <u>Hazardous Materials and Hazardous Waste Disposal</u>. Spill containment and cleanup procedures outlined in BO 11090.1B will be strictly adhered to. Any fuel sturated soil will be removed to the sanitary landfill. Disposal of any contaminated fuel will be in accordance with BO 11090.1B.
- h. Protection of Wetlands Executive Order 11990. There will be no disturbance of wetlands. Contingency containment to prevent any fuel from entering wetlands will be accomplished as discussed in 3(b) above.
- i. Sanitary Waste and Refuse Disposal. Facilities for disposal of sanitary waste currently exist. There is no need for any additional facilities.
- j. Other Applicable Regulations. Upon completion of the project, berms will be leveled and terrain returned to its original configuration. The proposed action does not involve any environmental regulations other than those discussed above.

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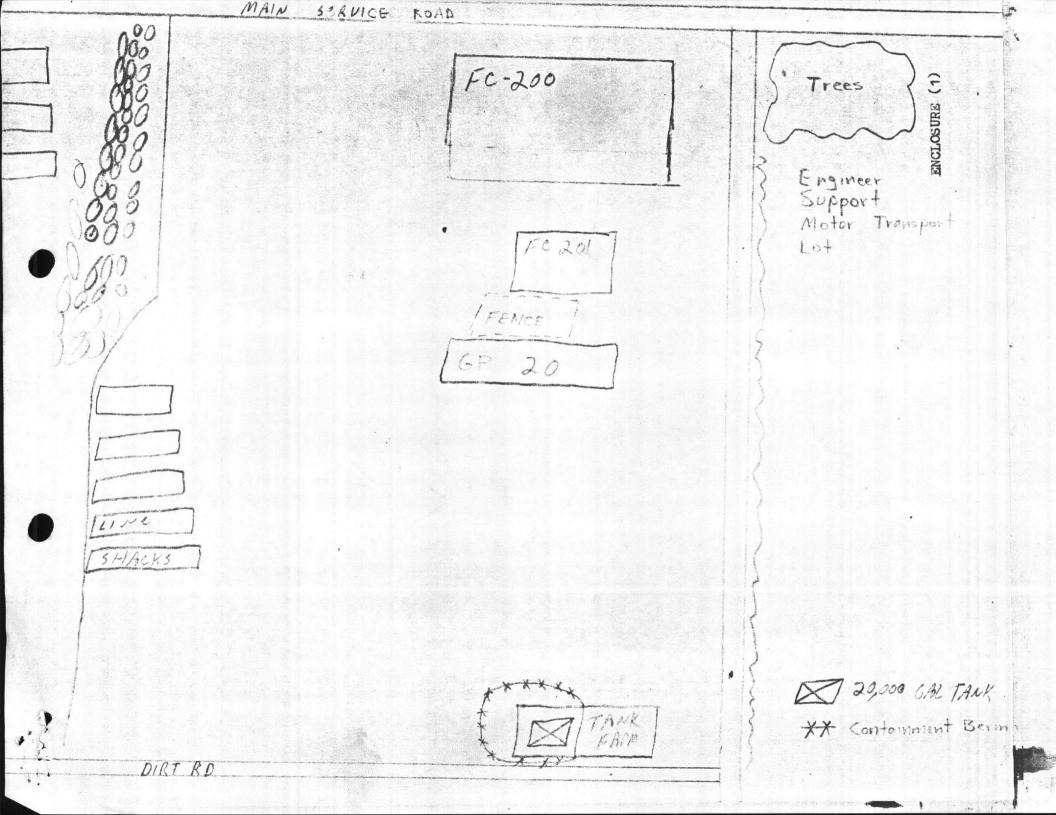
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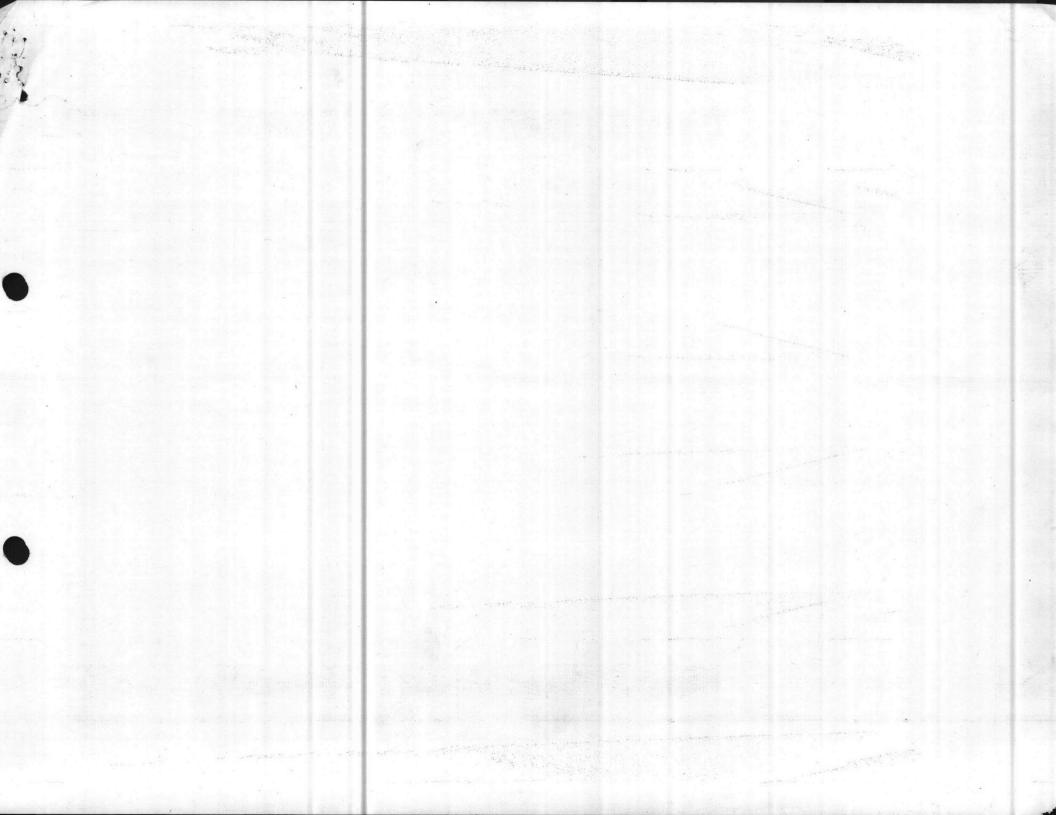
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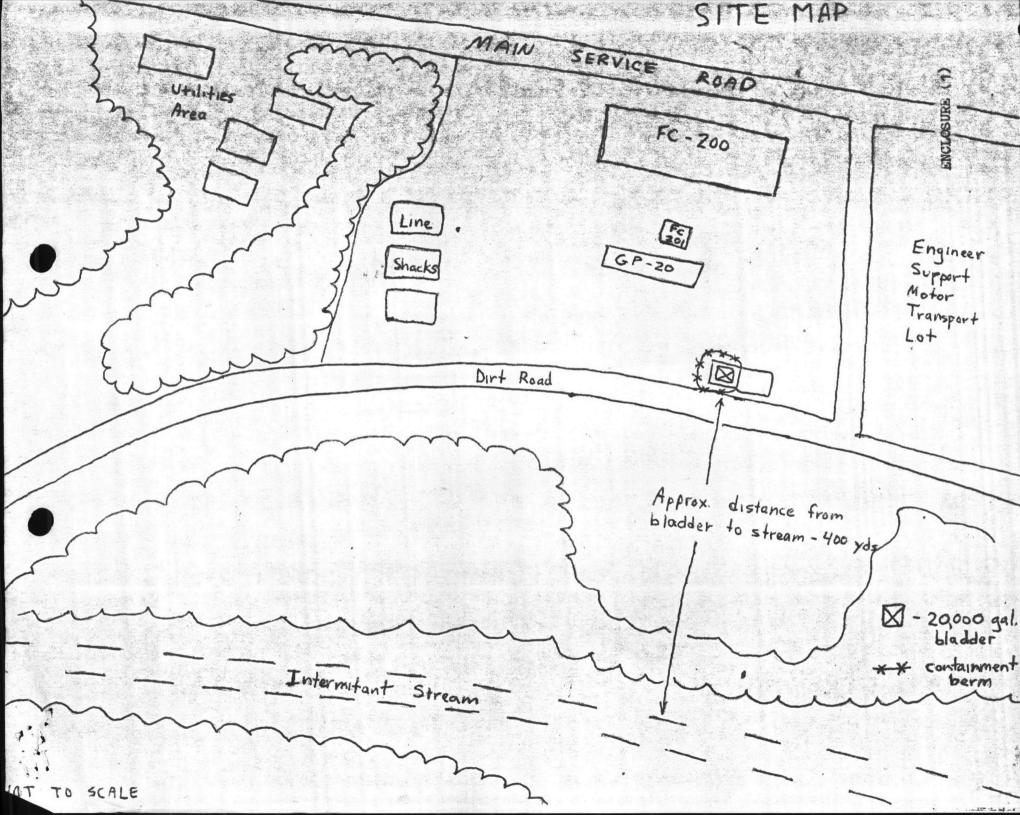
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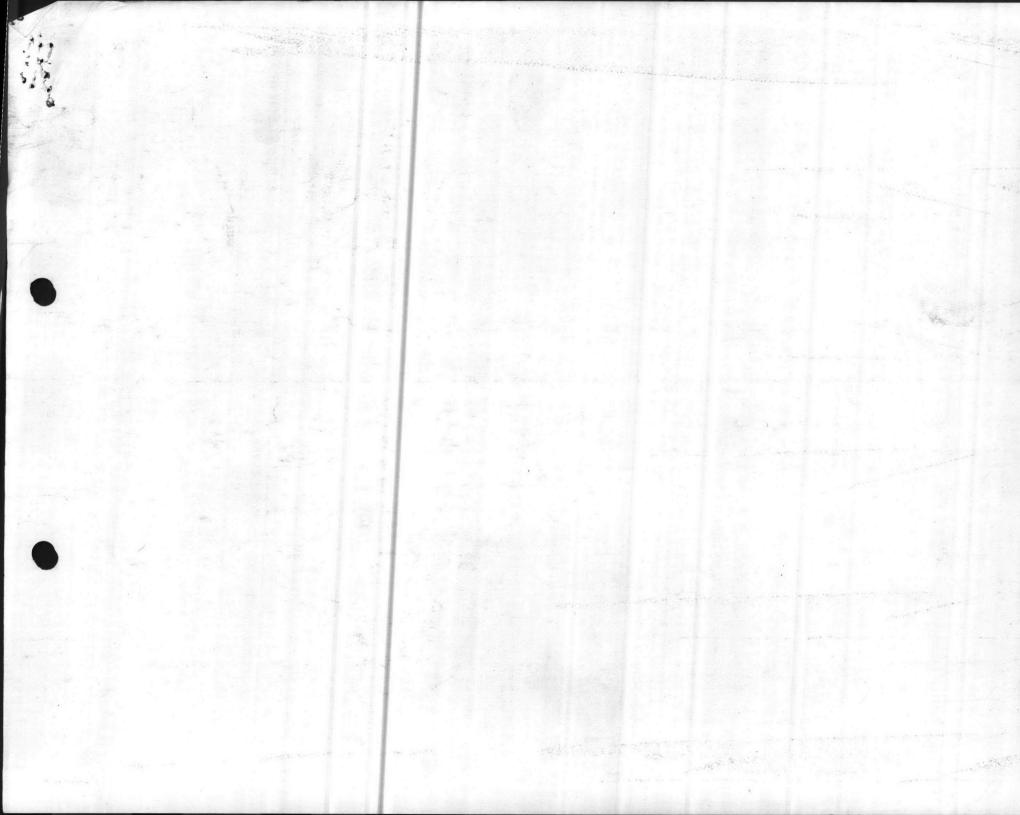
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MAIN/JIW/spk 16475 JAN 1 3 1982

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Preliminary Environmental Assessment for Duck Creek Landing Zone,

Bridge Training Project

Ref: (a) On-site discussion between Major Kyle S-3, 2dFSSG and J. I. Wooten

and Danny Sharpe, Base Maintenance Division on 8 Jan 1982

Encl: (1) Duck Creek Landing Zone PEA

1. During reference (a), the subject training project was inspected and it is recommended the request contained in enclosure (1) be approved as presented for a one time exercise.

 Natural Resources and Environmental Affairs Branch personnel will inspect upon training exercise completion.

F. H. MOUNT

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### HEADQUARTERS, MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA

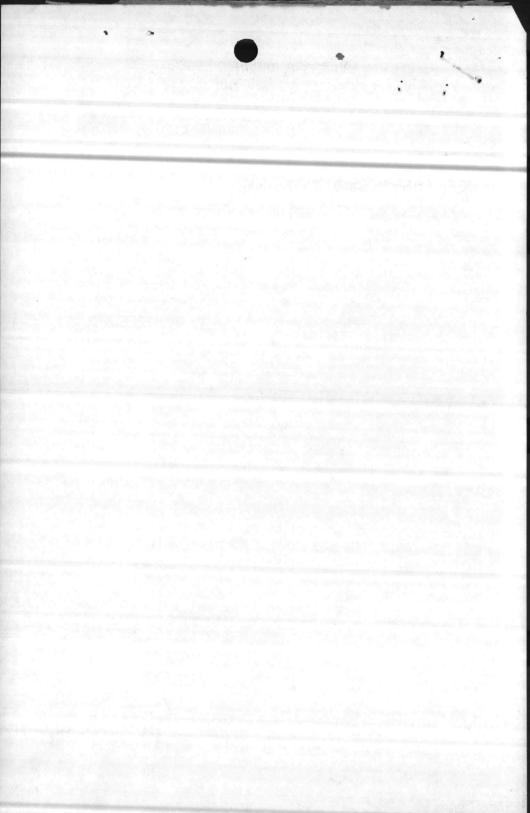
Date 5 Jan 82

Subj: PEA for prep of Janden Zone @ Duck Gh

Reid enclosed regist Today for SPN w/m ZWKS. Ido not believe the work is nec or just feel. No hard test parameter are avail. I regoted test site regents for FSSG. "CMC" apparently has requested a ravine & wet gap to fly my & MG to ---I find the rest & BM(NREA) for review & comment as writter & stated that I was avail to keen the site w/ then personnel Illfood add't test info to BM/TFAC as soon as I revenue it. (TCol 7,17 advised to hold copy for possible review before next EIA, Copy sent & TFACO for INFO

ge -

MCBCL 5216/9





#### UNITED STATES MARINE CORPS 2D FORCE SERVICE SUPPORT GROUP (REIN) FLEET MARINE FORCE, ATLANTIC CAMP LEJEUNE, NORTH CAROLINA 28542

42/RHC/kty 11013 5 Jan 1982

FIRST ENDORSEMENT on CO, 8th EngrSptBn 1tr WPK/mej of 30 December 1981

From:

Commanding General

To:

Commanding General, Marine Corps Base, Camp Lejeune,

North Carolina 28542 (Attn: Assistant Chief of Staff,

Facilities)

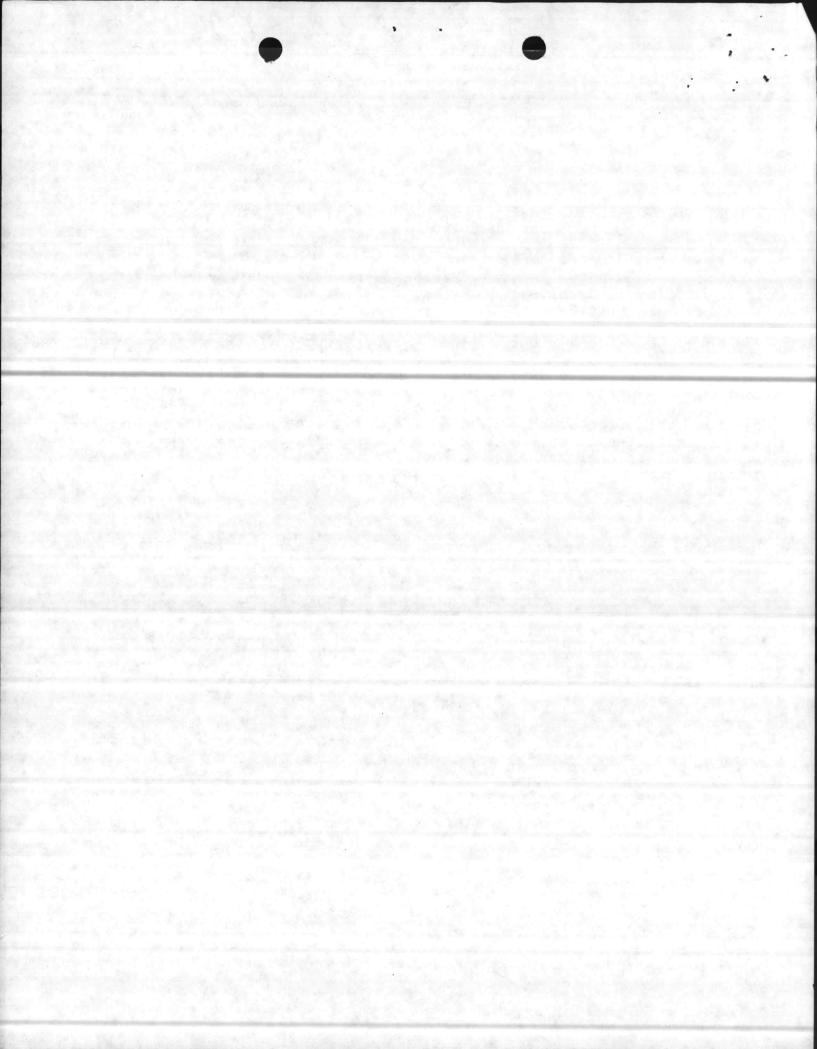
Duck Creek Landing Zone; request for authority to construct Sub j:

Readdressed and forwarded, recommending favorable consideration.

2. This request was generated out of a CMC directed project for evaluation of the CH53E Helicopter. Trees removed in the construction of the landing zone will be utilized as lumber by the 8th Engineer Support Battalion.

By direction

Copy to: CO, 8th EngrSptBn (S-3)



Ath Engineer Support Battalion

2d Force Service Support Group {Rein}

Fleet Marine Force, Atlantic

Camp Lejeune, North Carolina 28542

WPK/mej 30 December 1981

From: Commanding Officer

To: Commanding General, 2d Force Service Support Group {Rein}

{Attn: EngrSpt Officer}

Subj: Duck Creek Landing Zone; request for authority to construct

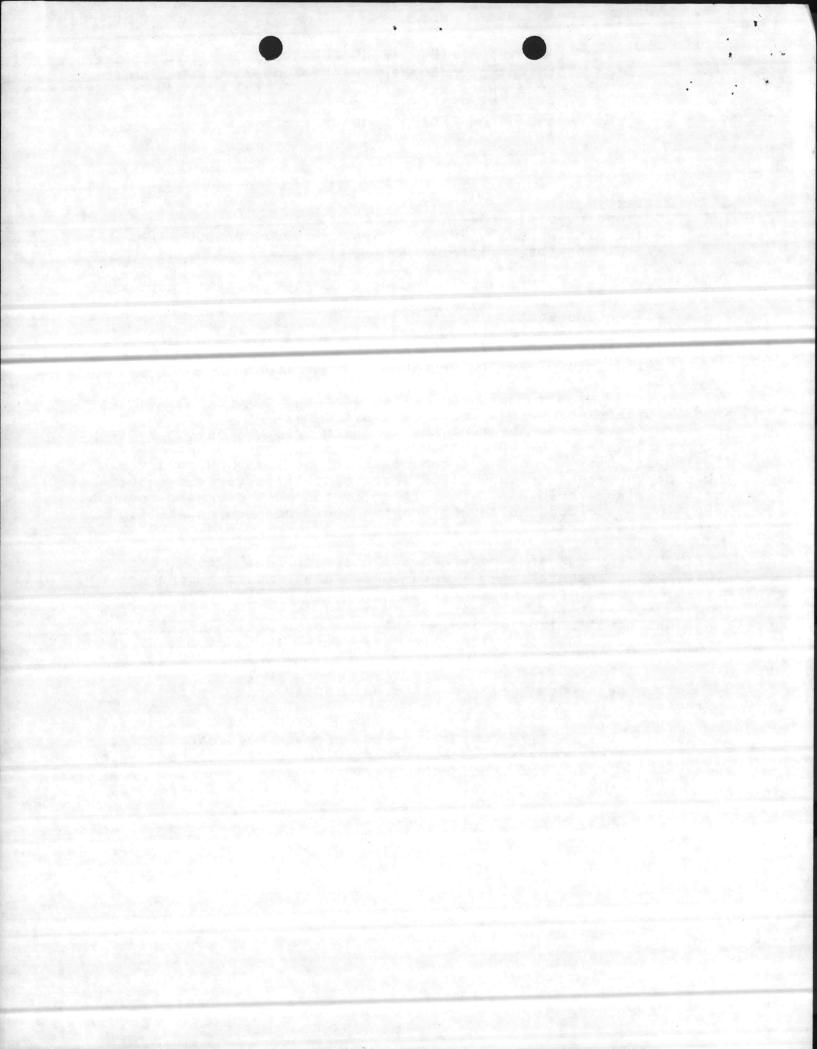
Encl: {1} Environmental Impact Statement

{2} Overlay of Duck Creek

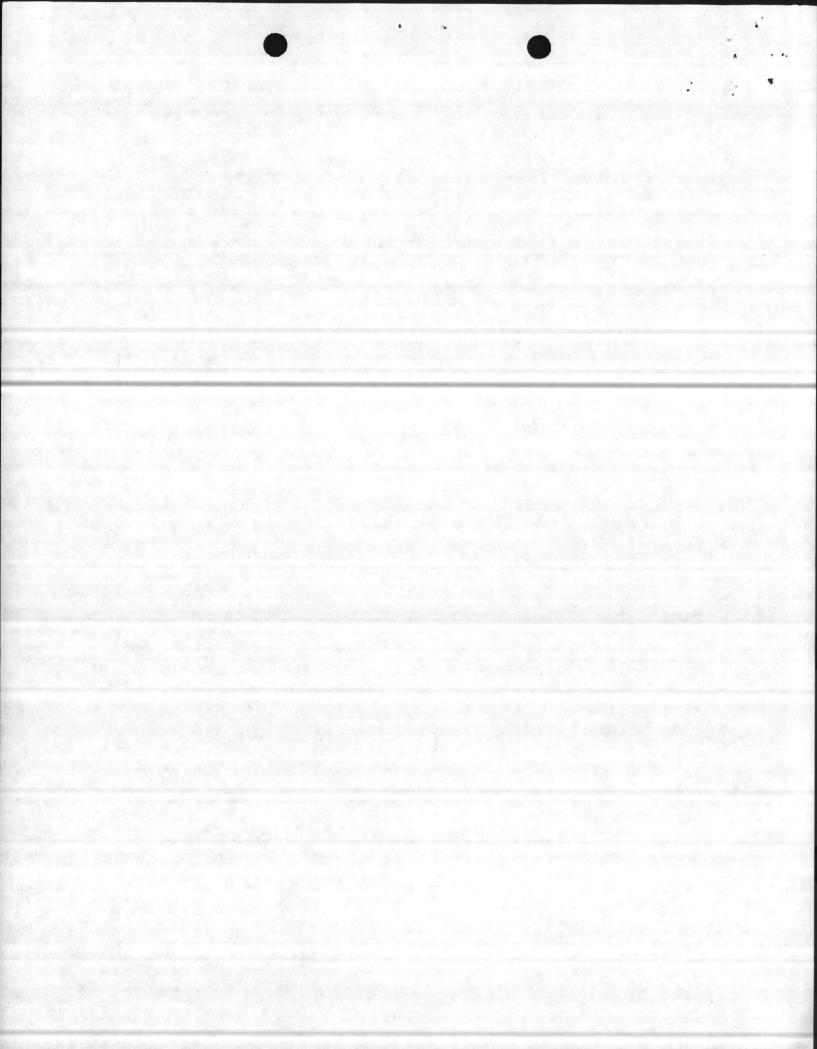
{3} Overlay of Construction Plan {4} Size of Trees to be removed

- 1. On 18-22 January 1982 a CMC directed project for load testing and evaluation of the new CH53E Helicopter will be conducted in the Duck Creek Area. Part of this project involves moving and emplacing a bridge by air. The Duck Creek site as described in enclosures {1-4} best suits the project and requires the least preparation. The other bridge training site located at Ellis Cove is unsuitable for emplacing a bridge by air. There is too much overhead cover to bring in the bridge and the helicopter would be required to fly over main service roads with the bridge as an external load.
- 2. The Duck Creek site requires a minimum of tree removal and no earth moving preparation. Twenty-three trees and some undergrowth must be removed from the Duck Creek site for helicopter safety to prepare the site for the test. This tree removal constitutes the construction of a landing zone. This LZ construction provides an improved training area which will benefit the wing division and FSSG units training at Camp Lejeune.
- 3. This project does not appear to have an adverse impact on the environment.
- 4. To meet the requirements of the CMC project for load testing the CH53E, it is requested that authority be granted to remove the twenty-three trees and undergrowth at Duck Creek.

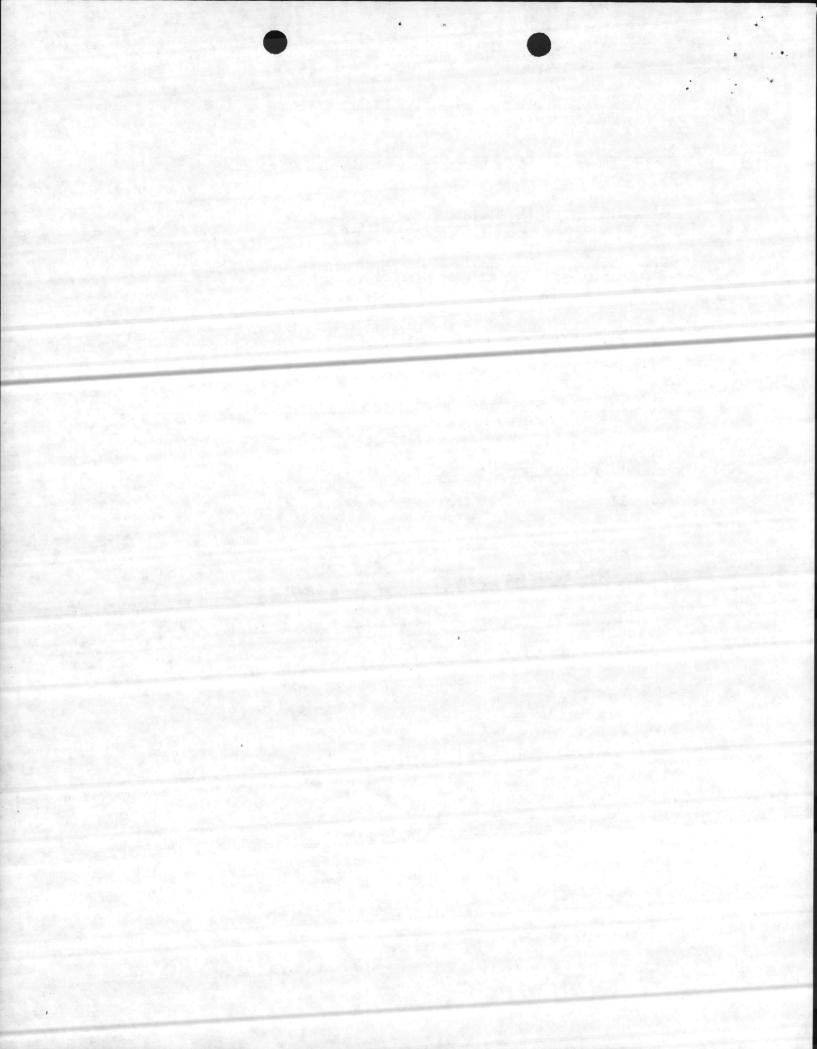
By direction

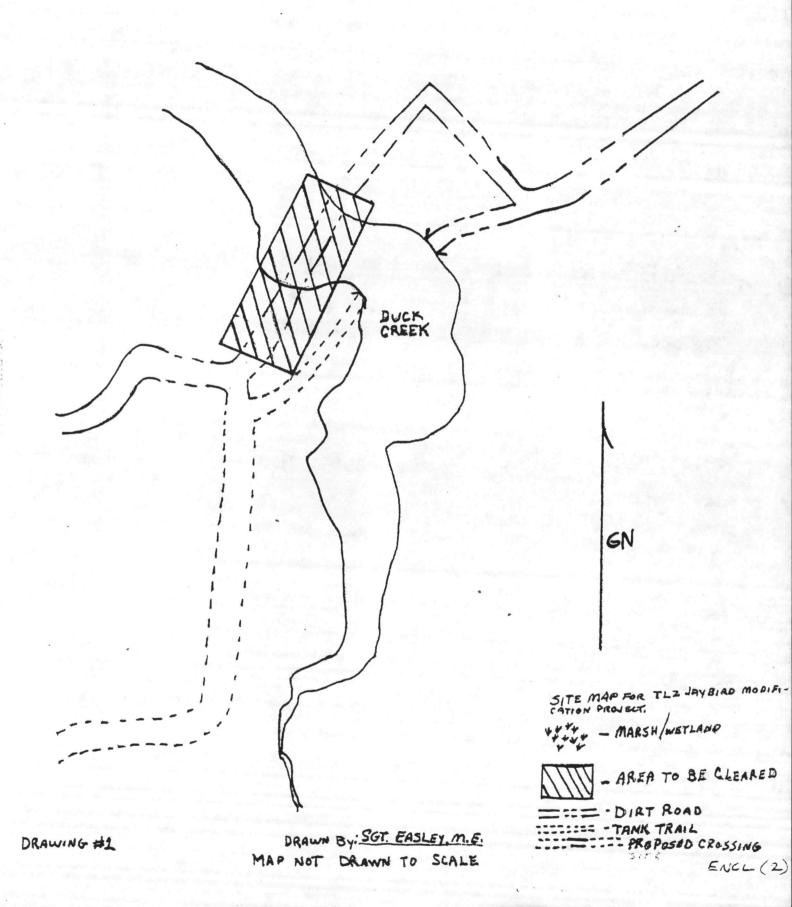


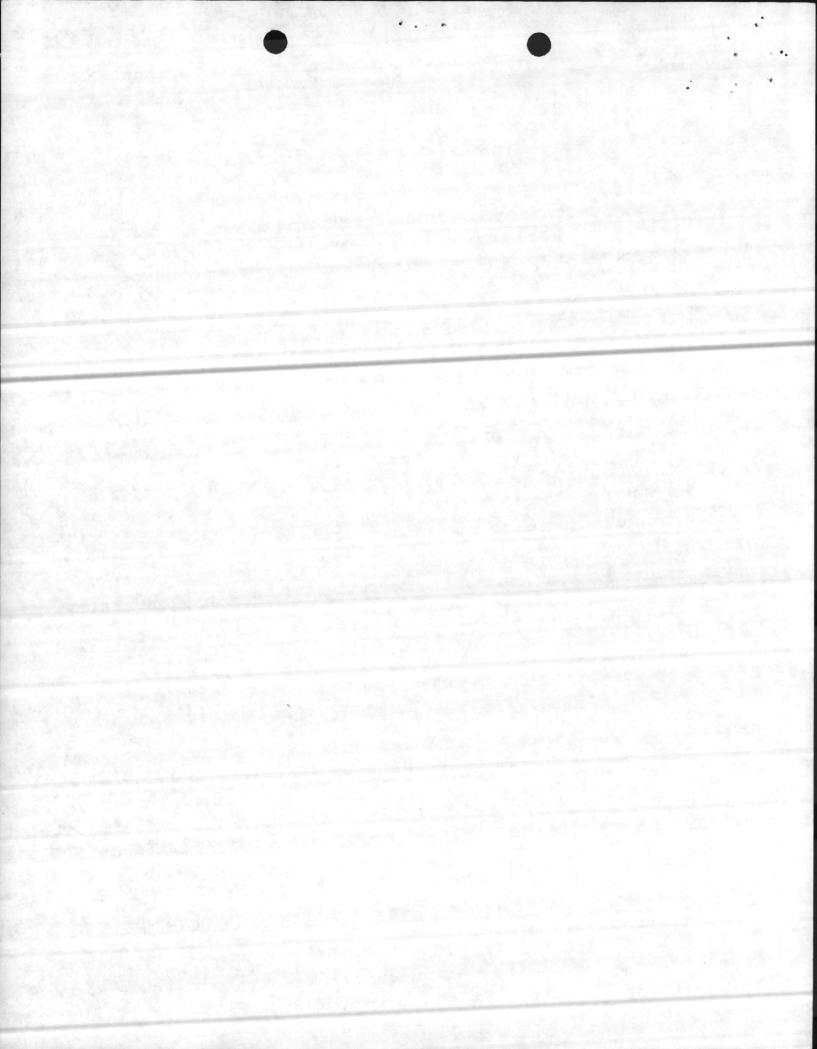
.1. Action / Project Description Project Description: The Duck Creek crossing site, located at GD 358336 Camp Lejeune Special Map, is an active training site for FSSG and Division Units. The site offers a 90 foot wet gap which is accessable by unimproved dirt roads on both shores and is presently the only wet gap in existance that affords easy access from both shores. Bridge training is conducted extensively at this area however, training is presently limited because of the confined space. It is requested that an L.Z. be constructed on one shore to accomidate the CH 53 E helicopter which is the prime mover for the MAT6 Bridge. Construction of the L.Z. would entail widening the road by approximately 50 feet on both sides, from the edge of the creek to approximately 200feet back. The construction would take place on only one side of the creek. i.e. The far shore referencing Main Side Camp Lejeune as the near shore. b. Providing the L.Z. is not constructed the routine bridge training will continue and the opportunity to work with the air wing at this location will be lost. c. Permanent facilities are already in existance. The only permanent facilities required are roads to and from the crossing site and they are already in existance. Therefore, no additional permanent facilities will be required. d. Preparation and construction of the L.Z. would require the removal of 23 trees. In addition underbrush would be removed. The removal of the trees would be accomplished with demolitions. e. Ongoing activities will continue in this area irreguardless of weather or not the L.Z. is constructed and no environmental damage will occur if the L.Z. is implaced. Consideration of Alternatives and Site Selection. a. Presently this is the only site aboard Camp Lejeune that possesses easy access from both shores and would require the least.amount of site preparation to construct the L.Z. and expand its present training use. b. Because of the numerous opportunities this site affords and the little site preparation which is required at this location vice major road construction and earth work to construct a similar site elsewhere. No other alternatives were evaluated. Compliance with Federal, State, and Local Environmental Regulations and Guidelines. a. Endangered Species Use and construction of the L.Z. has no apparent benificial or adverse impact on any endangered or threatened species. Primarily the Alligator and Red-Cockaded Woodpecker. b. Clean Water Act There will be no soil erosion or potential pollutants introduced to this area. c. Clean Air Act Not applicable. No significant discharge of air pollutants. d. Costal Management Act There is no direct impact on tidal marshes, beaches or other protected areas. ENCL (1)

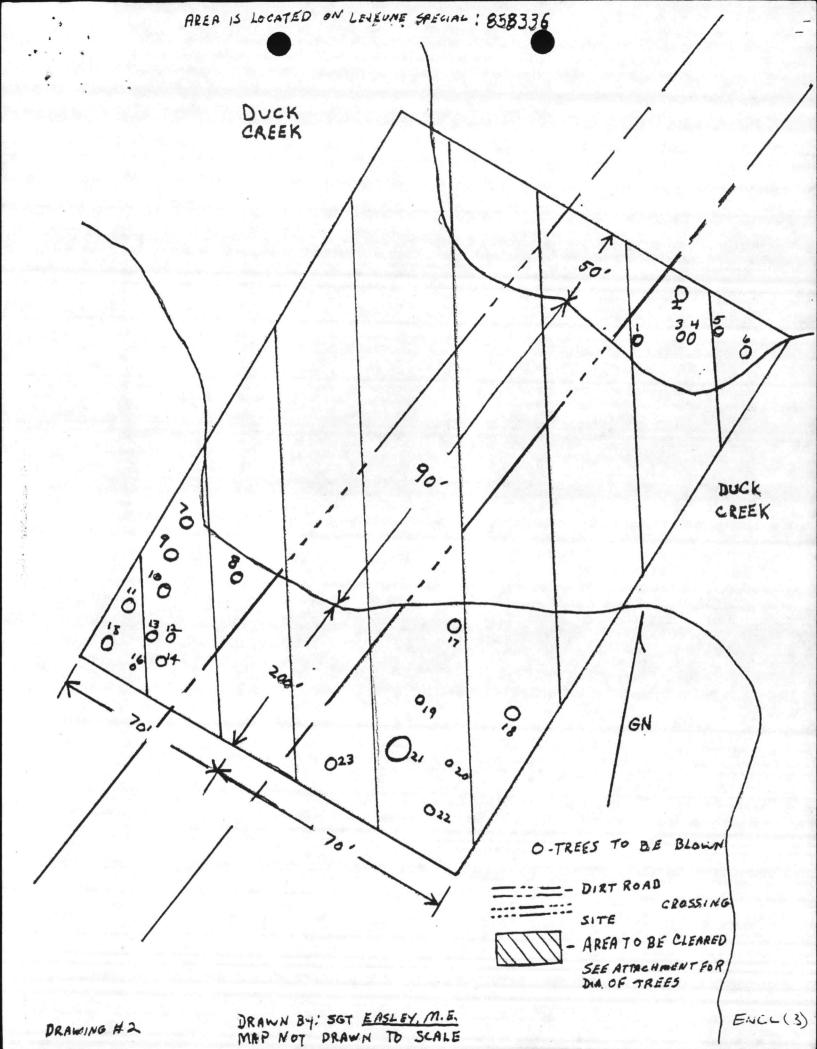


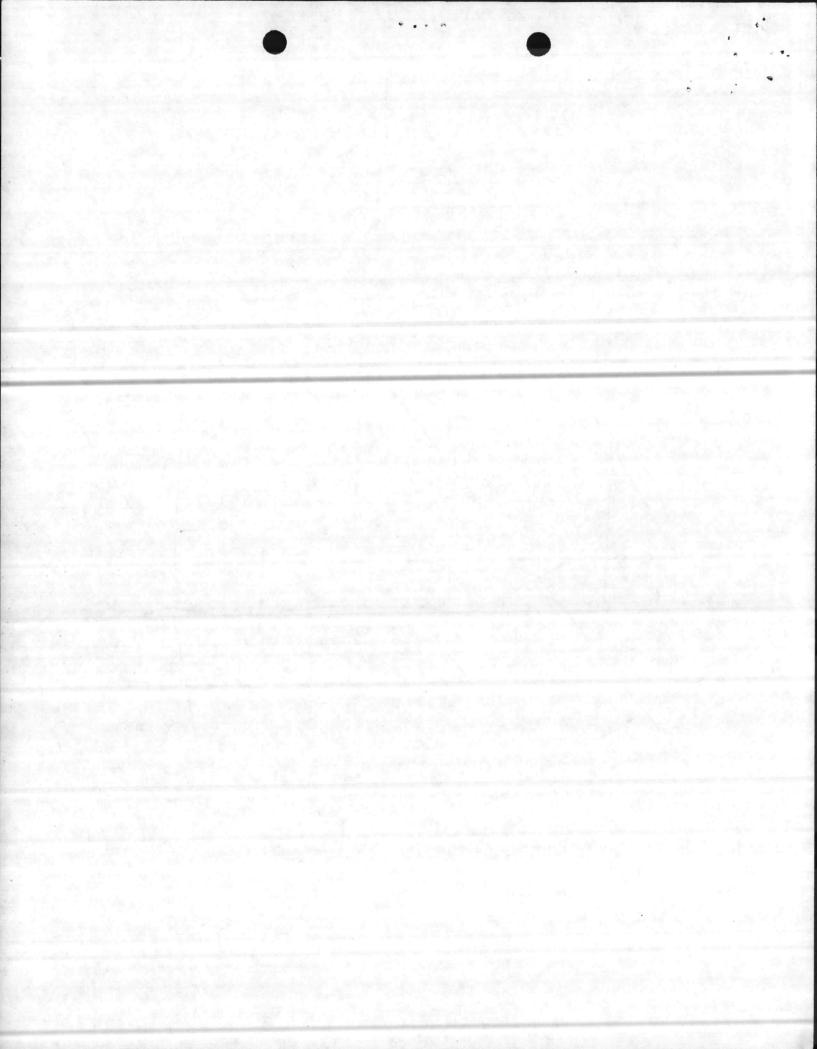
- e. Archaeological and storic Preservation Act There re no structures in the area. There are visible remnant structures of nomesites, artifacts etc. which indicate that the site is covered by this Act.
- f. North Carolina Erosion and Sedimentation Regulations As discussed earlier there is no significant potentail for sediment leaving the site.
- g. Hazardous Materials and Hazardous Waste Disposal After cleaning the L.Z. with demolitions no hazardous waste or material will exist or be interduced into the area.
- h. Protection of Wetlands, Executive Order 11990 Wetlands will not be effected by the construction or operation of the L.Z.
- i. <u>Sanitary Waste and Refuse Disposal</u> Refuse (i.e., cans, papers, etc.) will be collected by using personnel and disposed of at an approved refuse container at the sanitary landfill.
- j. Other Regulations Applicable The proposed action does not involve any environmental regulations other than those discussed above.
- k. Permit Requirements None
- 4. How does the Proposed Action Impact on other Base Functions and Missions
  - a. The proposed action will afford other units an additional training area.
  - b. Cosisteacy with Base Master Plan Not applicable
  - c. Overall, there is no enviremental impact.











THE FOLLOWING LIST OF NUMBERS AND DIAMETERS CORRESPOND WITH DRAWING #2:

1-12" DIA

2-20" DIA

3-7" DIA

4-8" DIA

5-7" DIA

6-11" DIA

7-25" DIA

8-15" DIA

9-20" DIA

10-20" DIA

11-10" DIA

12-10" DIA

13-28" DIA

14-16" DIA

15-10" DIA

16-8" DIA

17-10" DIA

18-24" DIA

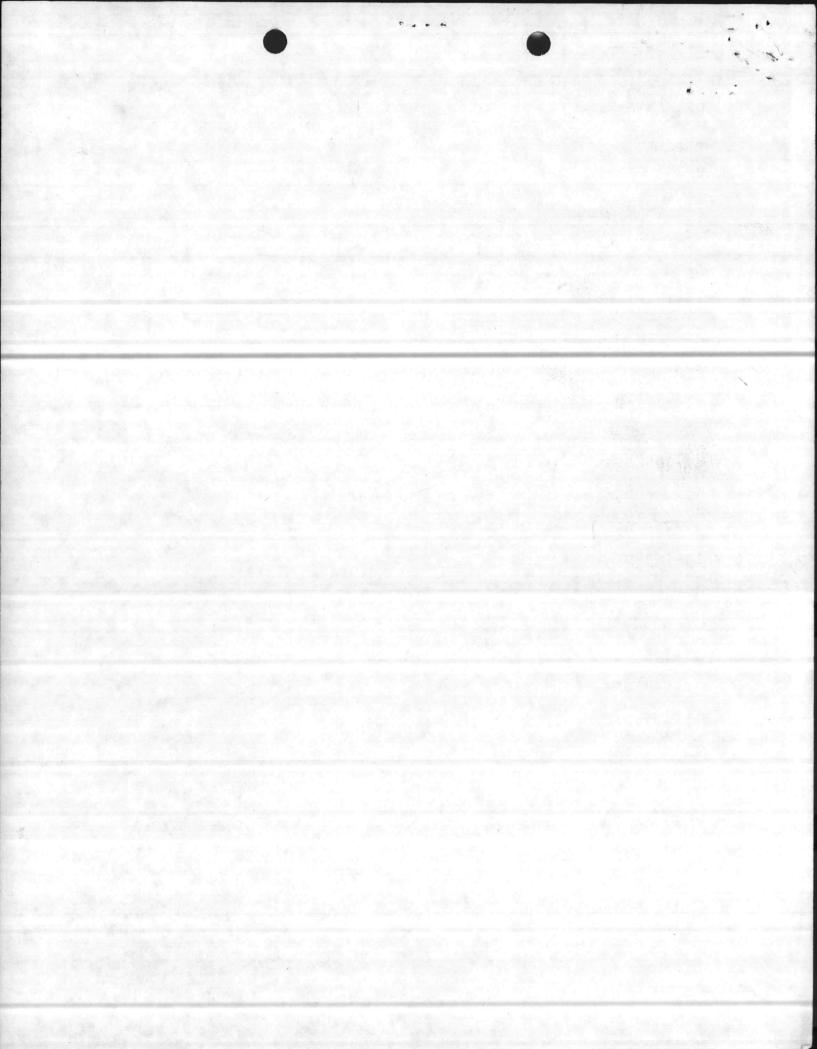
19-10" DIA

20-8" DIA

21-32" DIA

22-8" DIA

23-10" DIA



Training-Active

Firm tile

MAIN/CDP/th 16475

AUG 1 8 1981

SECOND ENDORSEMENT on CO, 10th Mar 1tr 3/JRL/jrl 11102 of 22 Jul 1981 with Endorsement

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Establishment of Permanent Firing Positions; request for

Encl: (2) CO 10th Mar 1tr 3/JRL/jrl 11000 of 10 Aug 1981

- 1. Readdressed and forwarded recommending review of the Preliminary Environmental Impact Assessment contained in enclosure (2) by the Environmental Impact Review Board. Potential noise levels generated by the proposed gun firing near civilian communities appears to be the most significant environmental issue.
- 2. The proposed gun positions near Hubert at Grid 942418 are adjacent to a marked red-cockaded woodpecker site. An access road right-of-way west of the proposed gun position through the woodpecker site will require marking. Natural Resources personnel will accomplish marking of the boundary along the roadway within two weeks.

F. H. MOUNT

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UNITED STATES MARINE CORPS
10th Marines
2d Marine Division, FMF
Camp Lejeune, North Carolina 28542

3/JRL/jr1 - 11000 10 August 1981

From: Commanding Officer

To: Commanding General, Marine Corps Base (A/CS Training)

Subj: Establishment of Permanent Firing Positions; request for

Ref: (a) BO P11102.1J

(b) BOO11000.1A

Encl: (1) Preliminary Environmental Impact Assessment

1. In accordance with Reference (a), it is requested that the below grids be approved for establishment of permanent firing positions to replace positions which are seldom used now as they either interfere with other live fire ragges or lie outside of Camp Lejeune airspace.

- a. Grid 942418
- b. Grid 949419
- c. Grid 941392

2. In accordance with reference (b), enclosure (1) is submitted.

B. E. BARRITEAU By direction

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#### PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT

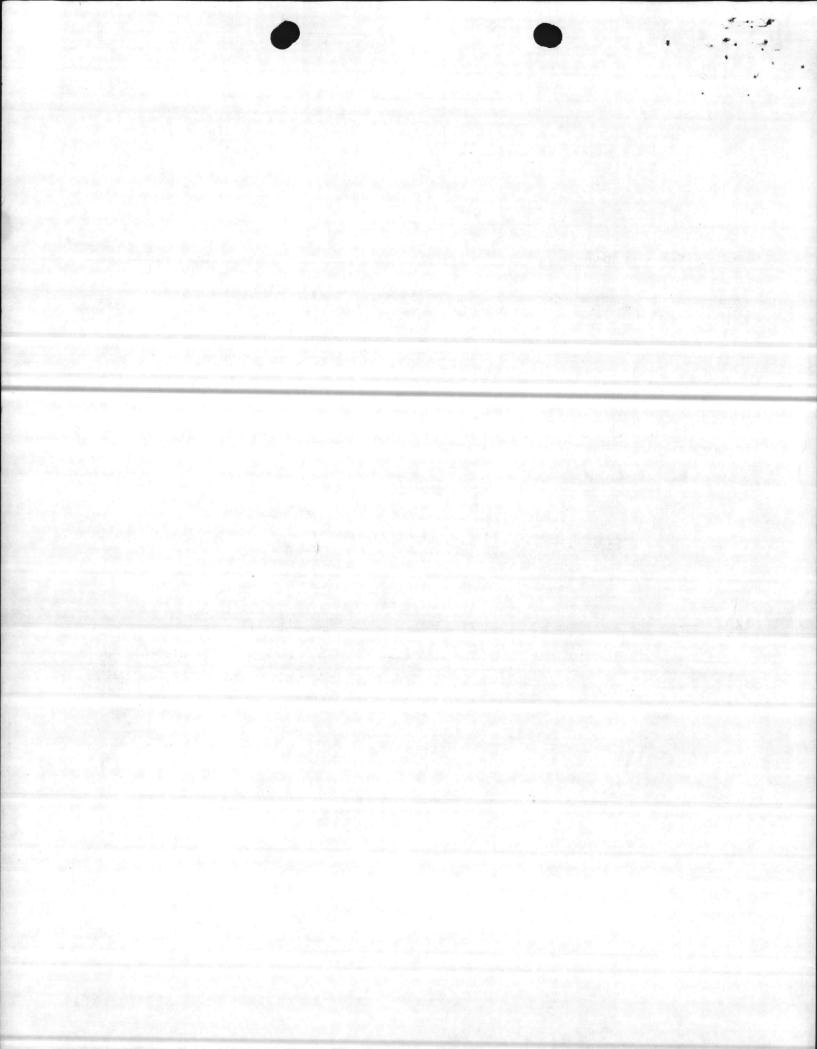
#### 1. Action / Project Description

- a. Project Description. Establishment of new permanent gun positions in the vicinity of grids 942418, 449419, and 941392 to replace current gun positions 1, 2, 3, and 8 which either cannot be used for firing or cause conflict with other live firing ranges.
- b. The following operations must be accomplished to establish the gun positions.
- (1) Clearing of an area at each of these grids large enough to set in a battery of 8" howitzers.
- (2) Survey operations to establish exact grid coordinates for each position.
- c. Once initially cleared, the areas will be able to revegetate with the exception of large trees.
- 2. Consideration of Alternatives and Site Selection. Thellocation of Gun Positions 1, 2, 3, and 8 currently make use of those positions difficult to fire from at best. Gun positions 1, 3. and 8 lie within other live fire ranges. Gun positions 2 lies outside of Camp Lejeune-controlled airspace. These considerations and a ground reconnaissance of FC and QA training areas showed that the above grids are best suited for establishment of gun positions to replace the problem areas.
- 3. Compliance with Federal, State and Local Environmental Regulations and Guidelines
- A. Endangered Species. The establishment of gun positions in the grids requested will in no way interfere with the endangered species in the Camp Lejeune area.
- b. Clean Water Act. Not applicable. Positions will be established a substantial distance from any streams or other bodies of water.
- c. Clean Air Act. Not applicable. No significant discharge of air pollutants.
- d. Coastal Zone Management Act.(CZMA). There is no direct or indirect impact on tidal marshes, beaches or other protected areas other than noise resulting from explosions.
  - c. Archively

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11000 10 August 1981

- e. Archaeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on state or national registers of historic sites.
- f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) above, there is no potential for sediment leaving the site. Therefore, these regulations are not applicable.
- from ammunition are carried away from the gun positions as a Regimental SOP. Therefore regulations concerning hazardous waste material do not apply. All powder not fired is burned in a cleared area as directed by 10th Marines Safety SOP. During firing, sentries are placed on all trails by which access to any gun position may be attained. These are situated just outside of the battery position to stop any traffic which may approach the battery position.
- h. Protection of Wetlands, Executive Order 11990. Not applicable as the propose positions are well away from the nearest streams.
- i. Sanitary Waste and Refuse Disposal. As the positions will not be near any body of water, sanitary waste disposal will be handled by normal field sanitation methods (i. e., 4-holer dug, used and closed in accordance with standards taught through EST training). Refuse will be collected and carried to an appropriate disposal facility.
- j. The proposed action does not involve any environmental regulations other than those discussed above.
- 4. Ampact of the Proposed Action on Other Base Functions and Missions.
- a. The establishment of artillery gun positions at the grids requested in 1 (a) would give the Regiment more useable gun positions in the Northern half of Camp Lejeune, thus giving more flexibility in supporting live firing exercises especially the Fire Support Coordination Exercises. The locations requested are well clear of live fire ragges used for small arms and machine guns.





## UNITED STATES MARINE CORPS MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542

TFAC/EMA/ves

FIRST ENDORSEMENT on CO, 10th Mar 1tr 3/JRL/jrl 11102 dtd 22Jul81

From: Training Facilities Officer

To: Assistant Chief of Staff, Facilities

Subj: Establishment of Permanent Firing Positions; request for

Encl: (1) CO 10th Mar 1tr 3/JRL/jrl 11102 dtd 22Jul81 w/Base Maintenance O comments attached

- 1. Readdressed and forwarded concurring with the proposed gun positions.
- 2. The following additional information regarding environmental impact is provided:
- a. Largest caliber weapon to be used in grid 941392 will be 105MM howitzers.
- b. The distances from the proposed gun positions to existing local communities are:
  - (1) Grid 942418 to Hubert: 1400 meters
  - (2) Grid 942418 to Starling: 1300 meters
  - (3) Grid 941392 to Trailer Park: 800 meters
  - (4) Grid 949419 to Starling: 700 meters
- c. All position gum target lines are 90° or greater to a line from the gum position to the closest community.
- 3. The noise pollutant from these positions will not be significantly greater than that of existing gun positions in the area (F-3, GP-8, GP-10, GP-13 and GP-14).

E. M. ASANOVICH

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E. M. ASAHOVICH

AUG 1 0 1991

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Request for Proposed Firing Positions; comments concerning

Ref:

(a) AC/S FAC memo of 28 Jul 1981

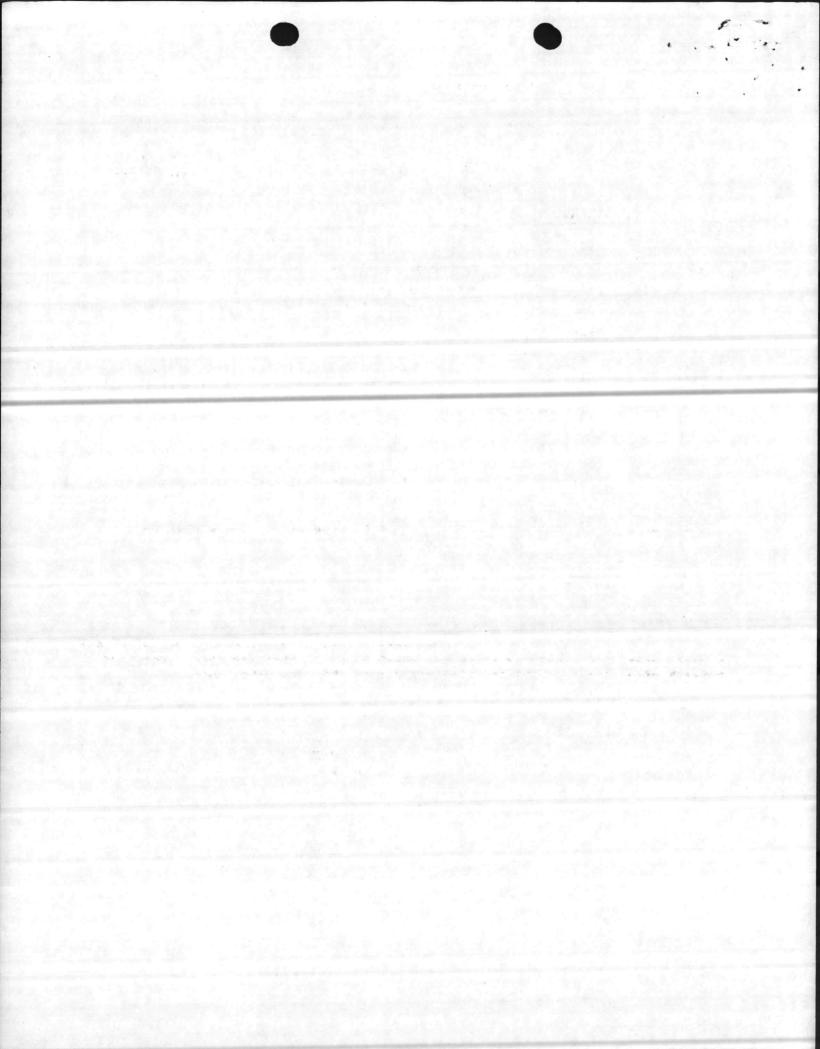
(b) CG 2dMARDIV 1tr 3/JRL/jrl 11102 of 22 Jul 1981

(c) On-site visit of proposed firing position by NREAB personnel, and LT Guillot, Naval Gunfire Officer, on 26 Jun 1981

(d) BO 11000.1A

- 1. Reference (a) requested review of proposed firing positions contained in reference (b) at grids 942420 and 941392, respectively. A discrepancy exists with grid 942420 which should be changed to 942418 to correctly indicate the location reviewed during reference (c). Recommend that the subject grid be changed to reflect the location reviewed during reference (c).
- 2. Both proposed sites are located near civilian communities which may be effected by noise levels from the gun positions. Therefore, it is further recommended that a Preliminary Environmental Assessment be made in accordance with reference (d).

F. H. MOUNT



# UNITED STATES MARINE CORPS 10th Marines 2d Marine Division, FMF Camp Lejeune, North Carolina 28542

3/JRL/jr1 11102 22 July 1981

From: Commanding Officer

To: Commanding General, Marine Corps Base, CLNC (A/CS Training)

Via: Commanding General, 2d Marine Division, FMF (G-3T)

Subj: Live Fire from Non-designated Areas; request for

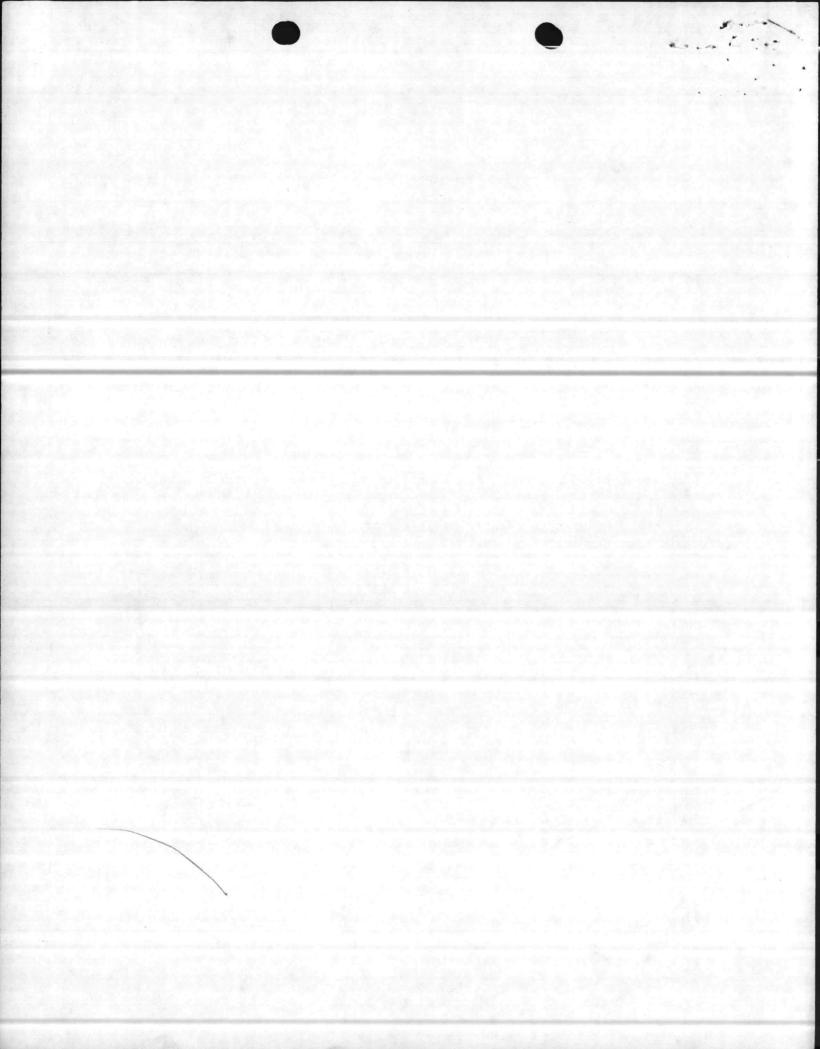
Ref: (a) BO P11102.1J

1. In accordance with reference (a), it is requested that the below grids be authorized for use as artillery positions for live firing during FSCEX 4-81, 17-21 August 1981.

942420 - 8" Howitzer 941392 - 105mm Howitzer

- 2. The above grids are requested as positions for the exercise due to conflicts which have arisen in the past with the positions noted below.
- a. GP 2, previously used for 8" cannot be used as it lies within an aircraft approach corridor.
- b. GP 8, previously used for 105mm is situated within the F-3 live fire range, and use by artillery often causes conflict with unit trying to use F-3 for infantry weapons.
- 3. By using the grids requested in paragraph one, no other ranges are affected. Additionally, the requested locations would move the exercise into a somewhat smaller area, leaving more training areas available for other units.

D. C. O'BRIEN
By direction



NATURAL RESOURCES AND ENVIRONENTAL AFFAIRS DIVISION BASE MAINTENANCE DEPARTMENT MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542 17 aug 81 From: Director, NREA Division To: Bmo Subj: E 15 Confirmel I recommend AC/S Fac, STA, PWO and Base Maint counter sending a representive MREA, Where to FAX howeself to seed to see whitey went to seed augment. Julian Dong Return for file gua M



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### REGION IV

345 COURTLAND STREET ATLANTA, GEORGIA 30365

JUL 27 1981

4SA-EIS

In June of 1980 we held our latest meeting of the Southeast regional personnel involved in the preparation and review of environmental impact statements. We expect new guidance shortly from the Council on Environmental Quality. We have invited them to present that guidance at our upcoming Environmental Impact Statement Conference to be held at the Atlanta Biltmore Hotel October 22-23, 1981. The purpose of the meeting will be to continue our coordination process and to discuss any pertinent issues that you desire.

The enclosed card can be used to indicate if your agency would like to participate and how many might attend. Its use will greatly assist us in planning the Conference. Please indicate on the eard issues that you wish discussed, questions that you would like answered, or suggested agenda items. If you wish to discuss the Conference by telephone, please call Sheppard N. Moore at FTS 257-7458 or Commercial 404-881-7458.

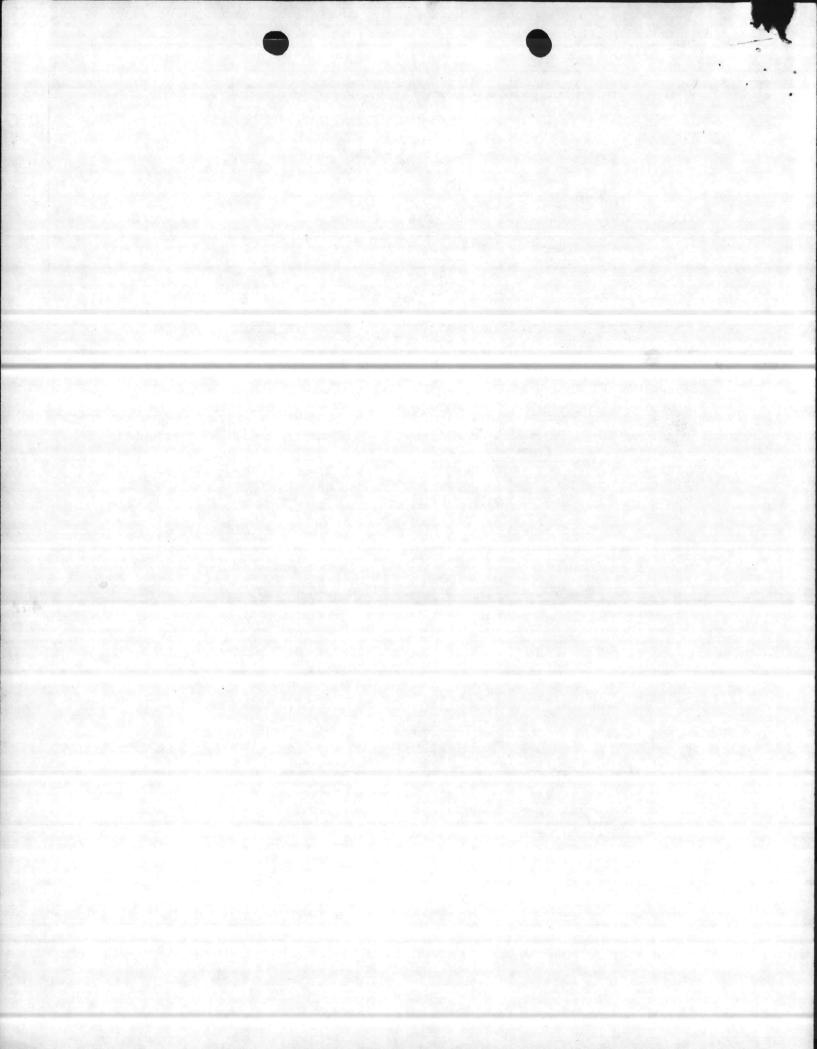
We have reserved a block of 100 rooms (single \$28.00, double, \$34.00) at the Atlanta Biltmore, 817 West Peachtree Street, N. E., Atlanta, Georgia 30308. You may write or call. The telephone number is 404-881-9500 or toll free 800-241-1893. In Georgia the toll free number is 800-282-1049.

IF YOU WISH TO STAY AT THESE ACCOMMODATIONS, BE SURE TO INDICATE TO THE RESERVATION CLERK THAT YOU ARE ATTENDING THE EIS CONFERENCE SO YOU WILL BE ABLE TO TAKE ADVANTAGE OF THE ABOVE RATE.

If you did not receive a copy of last year's proceedings, a limited number are still available. Thank you for your cooperation. We look forward to hearing from you.

Sincerely yours,

Regional Administrator



AUG 1 0 1981

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Request for Proposed Firing Positions; comments concerning

Ref:

(a) AC/S FAC memo of 28 Jul 1981

(b) CG 2dMARDIV 1tr 3/JRL/jrl 11102 of 22 Jul 1981

(c) On-site visit of proposed firing position by NREAB personnel, and

LT Guillot, Naval Gunfire Officer, on 26 Jun 1981

(d) BO 11000.1A

- 1. Reference (a) requested review of proposed firing positions contained in reference (b) at grids 942420 and 941392, respectively. A discrepancy exists with grid 942420 which should be changed to 942418 to correctly indicate the location reviewed during reference (c). Recommend that the subject grid be changed to reflect the location reviewed during reference (c).
- 2. Both proposed sites are located near civilian communities which may be effected by hoise levels from the gun positions. Therefore, it is further recommended that a Preliminary Environmental Assessment be made in accordance with reference (d).

F. H. MOUNT

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(b) to sutheuty ity startion into a 22 bil 1991 (c) Consite visit of proposed firthe period by WRETE personnels and The Tiet. Mayal Quarter Officer; on 26 Jun 1981

1. Peruranca (a) requested review of proposed firing posterous contained in reference (b) at drids 200420 and 901302 respectively. A discrepancy exists with ould 902020 which should be charined to 502418 to correctly indicate the -location reviewed caring reference (e). Recommend that the subject orly be changed to reflect the location reviewed diring reference (c).

2. Journayoned signs, are located near civilian communities contributed as you effected by actse levels from the our mositions. Thenefore, it to further recognished that a Preliminary Environmental Assessment be made in accordance with reference (d).

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UNITED STATES MARINE CORPS
10th Marines
2d Marine Division, FMF
Camp Lejeune, North Carolina 28542

3/JRL/jrl 11102 22 July 1981

From: Commanding Officer

To: Commanding General, Marine Corps Base, CLNC (A/CS Training)

Via: Commanding General, 2d Marine Division, FMF (G-3T)

Subj: Live Fire from Non-designated Areas; request for

Ref: (a) BO P11102.1J

1. In accordance with reference (a), it is requested that the below grids be authorized for use as artillery positions for live firing during FSCEX 4-81, 17-21 August 1981.

942420 - 8" Howitzer 941392 - 105mm Howitzer

- 2. The above grids are requested as positions for the exercise due to conflicts which have arisen in the past with the positions noted below.
- a. GP 2, previously used for 8" cannot be used as it lies within an aircraft approach corridor.
- b. GP 8, previously used for 105mm is situated within the F-3 live fire range, and use by artillery often causes conflict with unit trying to use F-3 for infantry weapons.
- 3. By using the grids requested in paragraph one, no other ranges are affected. Additionally, the requested locations would move the exercise into a somewhat smaller area, leaving more training areas available for other units.

D. C. O'BRIEN By direction Carp Setenies derth Carottes 36562

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# UNITED STATES MARINE CORPS 10th Marines 2d Marine Division, FMF Camp Lejeune, North Carolina 28542

3/JRL/jrl 11000 10 August 1981

From: Commanding Officer

To: Commanding General, Marine Corps Base (A/CS Training)

Subj: Establishment of Permanent Firing Positions; request for

Ref: (a) BO P11102.1J

(b) B0011000.1A

Encl: (1) Preliminary Environmental Impact Assessment

- 1. In accordance with Reference (a), it is requested that the below grids be approved for establishment of permanent firing positions to replace positions which are seldom used now as they either interfere with other live fire ragges or lie outside of Camp Lejeune airspace.
  - a. Grid 942418
  - b. Grid 949419
  - c. Grid 941392
- 2. In accordance with reference (b), enclosure (1) is submitted.

B. E. BARRITEAU
By direction

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#### PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT

#### 1. Action/Project Description

- a. Project Description. Establishment of new permanent gun positions in the vicinity of grids 942418, 949419, and 941392 to replace current gun positions 1, 2, 3, and 8 which either cannot be used for firing or cause conflict with other live firing ranges.
- b. The following operations must be accomplished to establish the gun positions.
- (1) Clearing of an area at each of these grids large enough to set in a battery of 8" howitzers.
- (2) Survey operations to establish exact grid coordinates for each position.
- c. Once initially cleared, the areas will be able to revegetate with the exception of large trees.
- 2. Consideration of Alternatives and Site Selection. Thellocation of Gun Positions 1, 2, 3, and 8 currently make use of those positions difficult to fire from at best. Gun positions 1, 3, and 8 lie within other live fire ranges. Gun positions 2 lies outside of Camp Lejeune-controlled airspace. These considerations and a ground reconnaissance of FC and QA training areas showed that the above grids are best suited for establishment of gun positions to replace the problem areas.

### 3. Compliance with Federal, State and Local Environmental Regulations and Guidelines

- **A.** Endangered Species. The establishment of gun positions in the grids requested will in no way interfere with the endangered species in the Camp Lejeune area.
- b. Cleam Water Act. Not applicable. Posétions will be established a substantial distance from any streams or other bodies of water.
- c. Clean Air Act. Not applicable. Bo significant discharge of air pollutants.
- d. Coastal Zone Management Act. (CZMA). There is no direct or indirect impact on tidal marshes, beaches or other protected areas other than noise resulting from explosions.

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11000 10 August 1981

- e. Archaeological and Historic Preservation Act. There are no structures in the immediate area which have been identified on state or national registers of historic sites.
- f. North Carolina Erosion and Sedimentation Regulations. As discussed in 3(b) above, there is no potential for sediment leaving the site. Therefore, these regulations are not applicable.
- g. Hazardous Materials and Hazardous Waste Disposal. All waste materials from ammunition are carried away from the gun positions as a Regimental SOP. Therefore regulations concerning hazardous waste material do not apply. All powder not fired is burned in a cleared area as directed by 10th Marines Safety SOP. During firing, sentries are placed on all trails by which access to any gun position may be attained. These are situated just outside of the battery position to stop any traffic which may approach the battery position.
- h. Protection of Wetlands, Executive Order 11990. Not applicable as the propose positions are well away from the nearest streams
- i. Sanitary Waste and Refuse Disposal. As the positions will not be near any body of water, sanitary waste disposal will be handled by normal field sanitation methods (i. e., 4-holer dug, used and closed in accordance with standards taught through EST training). Refuse will be collected and carried to an appropriate disposal facility.
- j. The proposed action does not involve any environmental regulations other than those discussed above.

#### 4. Ampact of the Proposed Action on Other Base Functions and Missions.

a. The establishment of artillery gun positions at the grids requested in 1 (a) would give the Regiment more useable gun positions in the Northern half of Camp Lejeune, thus giving more flexibility in supporting live firing exercises especially the Fire Support Coordination Exercises. The locations requested are well clear of live fire ragges used for small arms and machine guns.

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MAIN/CDP/th 16475 DATE: 26 Jun 1981

FROM

Base Wildlife Manager

TO

MEMORANDUM FOR THE RECORD

SUBJ

Environmental Impact Assessment for Proposed Gun Positions

Ref:

- (a) Site Review of existing and proposed gun position with LT Guillot, Naval Gunfire Officer, assigned to 2dMARDIV
- 1. The purpose of this memo is to document Natural Resources participation in reviewing sites of proposed gun positions relative to possible impact to red-cockaded woodpecker habitat. Lt Guillot was informed that Natural Resources merely reviewed the proposed sites, made suggestions for tentative modifications prior to the units submission of an PEA to the EIRB who would finally approve or disapprove the project.
- 2. Present Gun Positions #2, #3, and #4 were reviewed and the following comments apply:
- a. Gun position #2 is in a reforested area which has not been used and which will require clearing of sapling size trees. No merchantable timber occures on this site.
- b. Gun position #3 is inside the contiguous boundary of red-cockaded woodpecker habitat and any further expansion of the site is prohibited without formal consultation with the USFish and Wildlife Service.
- c. Gun position #4 is inside a stand of timber which has been marked for a leave-tree thinning timber sale. Further removal of trees from the gun position can be accomplished through an adjustment during the forthcoming timber sale.
- 3. Two new proposed gun positions at grids 937416 and 939422 were located inside marked red-cockaded woodpecker habitat. Lt Guillot was informed that these sites could not be used without formal consultation with the US Fish & Wildlife Service. A recommendation was made to change these proposed positions to grids 942418 and 949418 which is located in a longleaf stand which has been regenerated. There is no merchantable timber on these sites that require removal.
- 4. The other proposed gun position is located at grid 940394 on the north side of the Starrets Meadow Road behind TLZ Lark. There is pulpwood size timber which would probably require removal from this site.
- 5. An EIA will be submitted for the three proposed ranges. A request for saw timber removal from gun position #4 will be submitted by separate correspondence.

C.D. Pitersen

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MAIN/CDP/th 16475 DATE: 9 Sep 1981

FROM Base Wildlife Manager

TO MEMORANDUM FOR THE RECORD

SUBJ Establishment of Permanent Firing Positions; request for

Ref: (a) BMO ltr MAIN/CDP/th 16475 of 18 Aug 1981

1. Reference (a) contained a response concerning a request for establishing permanent firing positions in the Hubert Area of the base. The response noted a requirement for marking an access road boundary through a woodpecker site at Grid 942418. Marking was accomplished along both sides of the access road by Wildlife Management personnel on 31 August 1981.

2. It is recommended that this  ${\sf MEMORANDUM}$  be attached to the PEA for the firing position.

/s/ C. D. PETERSON

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Base Wildlife Manager

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/s/ C. D. PETERSON

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AST C. B. DETERMENT

MAIN/CDP/th 16475

AUG 1 0 1981

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Request for Proposed Firing Positions; comments concerning

Ref:

(a) AC/S FAC memo of 28 Jul 1981

(b) CG 2dMARDIV 1tr 3/JRL/jrl 11102 of 22 Jul 1981

(c) On-site visit of proposed firing position by NREAB personnel, and

LT Guillot, Naval Gunfire Officer, on 26 Jun 1981

(d) BO 11000.1A

- 1. Reference (a) requested review of proposed firing positions contained in reference (b) at grids 942420 and 941392, respectively. A discrepancy exists with grid 942420 which should be changed to 942418 to correctly indicate the location reviewed during reference (c). Recommend that the subject grid be changed to reflect the location reviewed during reference (c).
- 2. Both proposed sites are located near civilian communities which may be effected by hoise levels from the gun positions. Therefore, it is further recommended that a Preliminary Environmental Assessment be made in accordance with reference (d).

F. H. MOUNT

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MAIN/JIW/th 11000

DCT 2 7 1980

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Environmental Impact Assessment for Proposed 50 Caliber Machine Gun

Range at North Onslow Tower; comments concerning

Ref: (a) AC/S FAC memo of 4 Sep 1980

1. As per reference (a), subject environmental impact assessment has been reviewed and the following comments are offered.

- a. The Eastern Brown Pelican (Pelecanus occidentalis carolinensis) an endangered species should be included in the environmental impact assessment. Formal consultation with the U.S. Fish and Wildlife Service is required by the Endangered Species Act.
- b. More recent data indicates the threatened Atlantic Loggerhead Sea Turtle (Caretta caretta) and Green Sea Turtle (Chelonia mydas mydas) nesting activities extend from May to October rather than the seven days around full moon, as indicated in paragraphs 3f and 5a. Formal consultation with the U. S. Fish and Wildlife Service and National Marine Fisheries Service is also required by the Endangered Species Act.
- c. Public Works Officer has responsibility for federal consistency requirements of the Coastal Zone Management Program carried out by the State Office of Coastal Zone Management. Either a negative declaration or consistency determination is required. The subject environmental impact assessment should be reviewed by the Public Works Officer.
- 2. It is recommended formal consultation with the U. S. Fish and Wildlife Service and National Marine Fisheries Service be effected prior to the Environmental Impact Review Board making a final decision on subject proposed range.
- 3. Natural Resources and Environmental Affairs, Base Maintenance Department, will act as the point of contact in formal consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service, as directed.

F. H. MOUNT

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# TRAINING FACILITIES BRANCH Marine Corps Base Camp Lejeune, North Carolina 28542

TFAC/GGG/ves 11000 22 August 1980

From: Training Facilities Officer

To: Assistant Chief of Staff, Facilities

Subj: Environmental Impact Assessment for Proposed .50 Caliber

Machine gun Range at North Onslow Tower

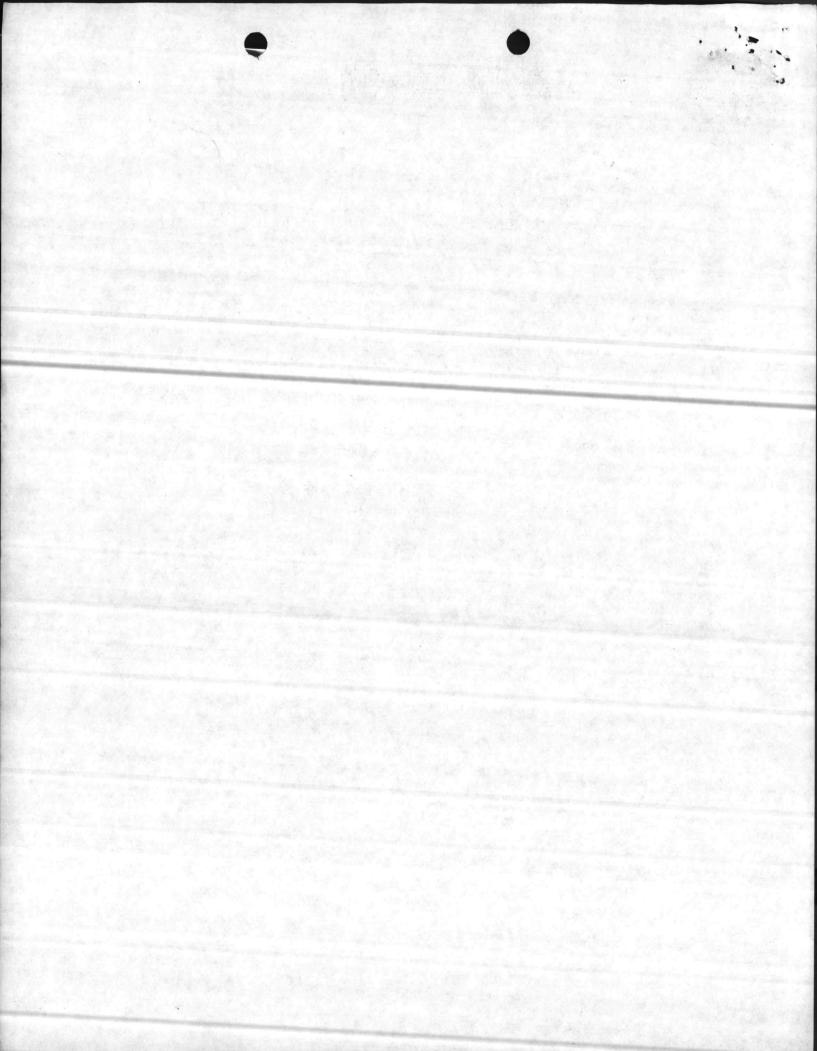
Ref: (a) Base Maint ltr MAIN/JIW/th over 6240/19 dtd 27Aug79

Encl: (1) 2dAsltPhibBn ltr 3:PMK:mal over 1500 dtd 16Jun80

1. During 1979, the 2dAsltPhibBn requested permission to fire heavy machine guns into the ocean from the vicinity of Onslow/North Tower. Reference (a) required that an Environmental Impact Assessment be accomplished for such action to be considered. Enclosure (1) is the required Environmental Impact Assessment.

2. Upon approval of the Assessment, the range regulations concerning the proposed range will be written and published.

G. G. GARWICK





## UNITED STATES MARINE CORPS 2D MARINE DIVISION, FLEET MARINE FORCE CAMP LEJEUNE, NORTH CAROLINA 28542

3/HCW/vfv 1500 23 July 1980

IN REPLY REPER TO

From: Commanding General

To: Commanding General, Marine Corps Base, Camp Lejeune,

North Carolina 28542 (AC/S Training)

Subj: Firing of the .50 Caliber Machine Gun from Onslow Beach

into the BT-3 Impact Area

Ref: (a) CG, MCB ltr TFAC/WJF/ves over 1500 dtd 21 Sep 79

Encl: (1) Environmental Impact Assessment

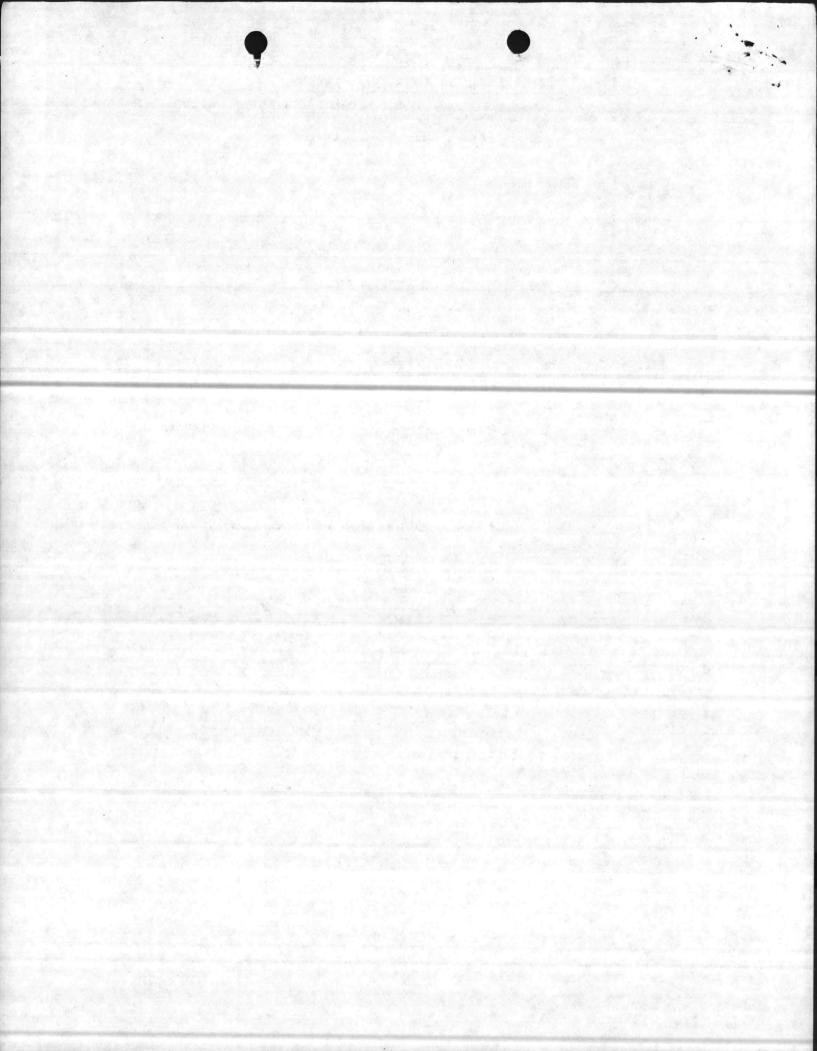
(2) CG, 2d MarDiv 1tr 3/HCW/jly over 1500 dtd 27 Sep 79

1. Enclosure (1) is submitted as requested by the reference.

2. This command still fully supports the subject request. Enclosure (2) provides the background for the proposed firing range.

T.M. STOKES

By direction





# United States Department of the Interor

#### FISH AND WILDLIFE SERVICE

75 SPRING STREET, S.W ATLANTA, GEORGIA 30303

MAR 1 9 1890

Brigadier General D. B. Barker U.S. Marine Corps Marine Corps Base Camp Lejeune, NC 28542

Dear General Barker:

In an effort to streamline the consultation process under Section 7 of the Endangered Species Act, the Fish and Wildlife Service has made a minor change in consultation procedures. Beginning with the date of this letter Federal agencies should request the list of the threatened or endangered species that may occur in their project area from the Area Office in Jackson, Asheville or Jacksonville, not from the Regional Office in Atlanta.

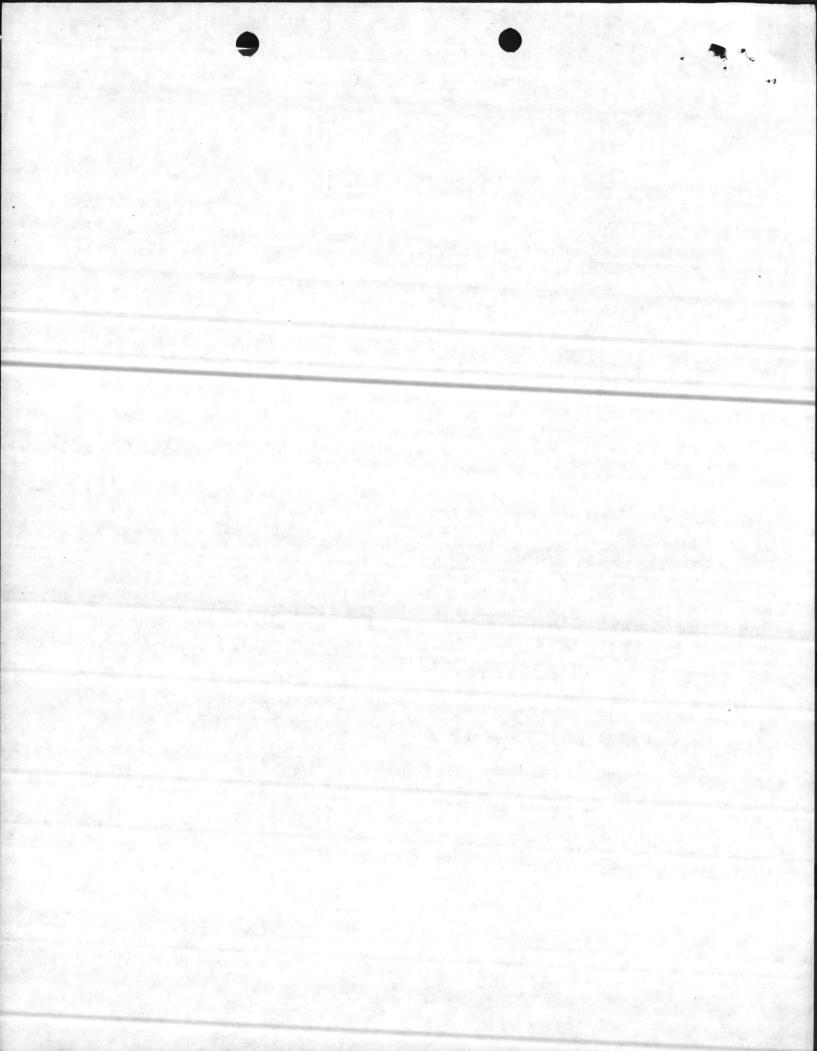
Under former procedures, the request for a list of species was mailed to the Atlanta Office and forwarded to the Area Office. With the new arrangement the request can be sent directly to the Area Office which will respond directly to the Agency. This will save time as well as reduce paper work in the consultation process.

For those construction projects where listed species may occur, a biological assessment is required. Those assessments which determine a "no effect" to the species should be sent directly to the Area Office with a copy to the Regional Office. Those assessments which determine a "may affect" situation, and therefore request consultation, should be sent to the Regional Office.

The Area Office addresses and jurisdictions are listed below. Remember, it is the location of the project, not the agency, that determines which Area Office should receive the request.

Area 1 (Georgia, Florida, Puerto Rico and the Virgin Islands)

Donald J. Hankla - Area Manager U.S. Fish and Wildlife Service 900 San Marco Boulevard Jacksonville, Florida 32207 FTS 946-2267 Commercial 904/791-2267



After April 1st the Jacksonville Area Office address will be:

Donald J. Hankla - Area Manager U.S. Fish and Wildlife Service 15 North Laura Street Jacksonville, Florida 32207

Area 2 (North Carolina, South Carolina, Kentucky, and Tennessee)

Bill Hickling - Area Manager U.S. Fish and Wildlife Service Federal Building - Room 279 Asheville, North Carolina 28802 FTS 672-0321 Commercial 704/258-2850 (Ext. 321)

Area 3 (Alabama, Mississippi, Louisiana, and Arkansas)

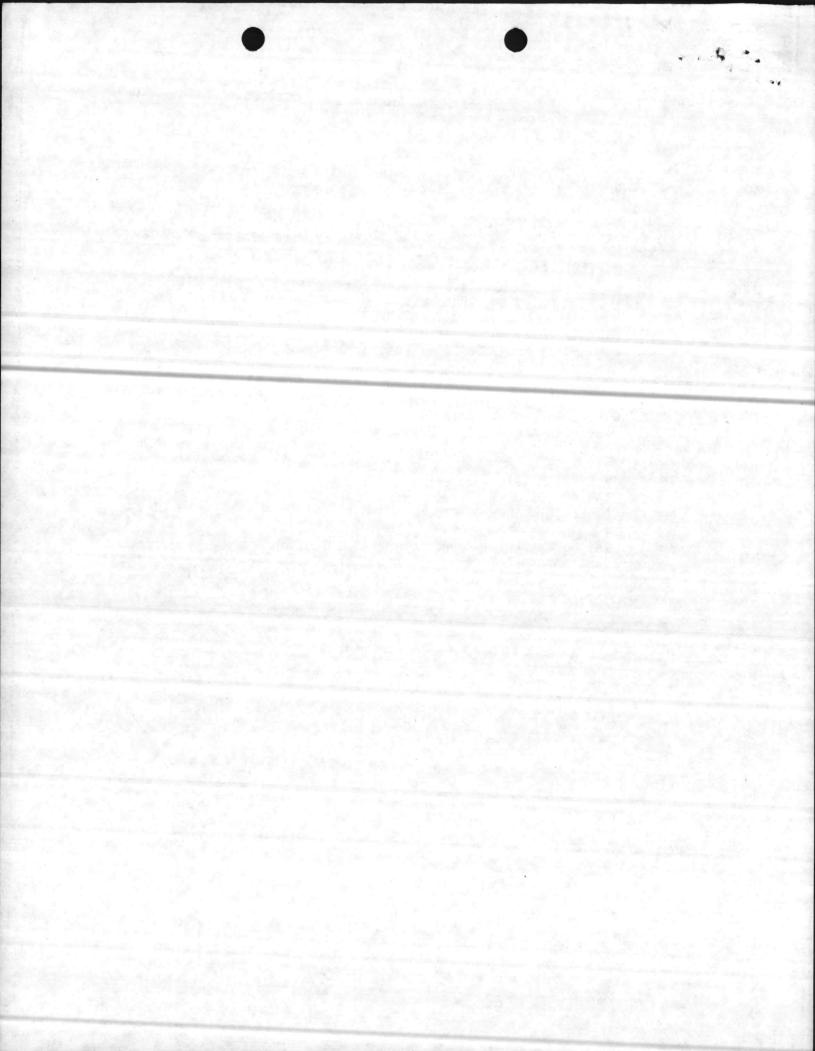
Gary L. Hickman - Area Manager U.S. Fish and Wildlife Service 200 E. Pascagoula Street Suite 300 Jackson, Mississippi 39201 FTS 490-4900 Commercial 601/969-4900

We believe this change will expedite the consultation process. Your cooperation and interest in the endangered species program are appreciated.

Sincerely yours,

Regional Director

AL E. Black



United State Department of the Interior

P. O. BOX 55067 ATLANTA, GEORGIA 30347

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Brigadier General D. B. Barker U. S. Marine Corps Marine Corps Base Camp Lejeune, North Carolina 28542

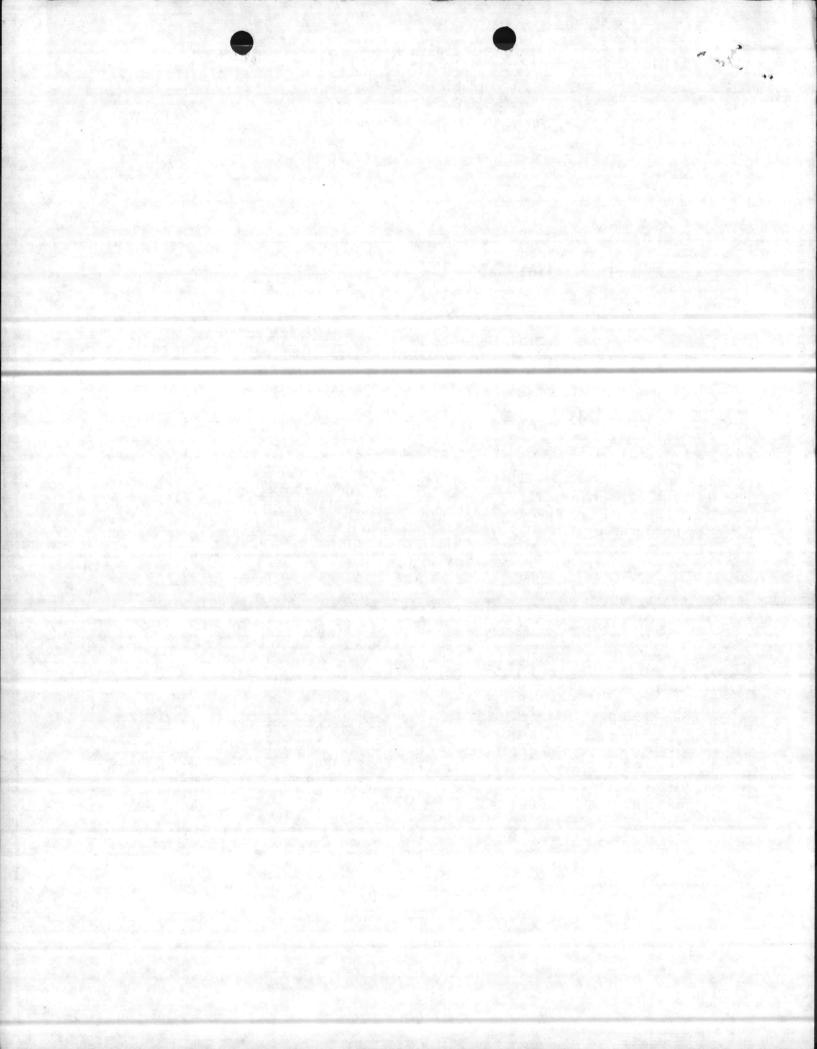
Dear General Barker:

This letter represents the Biological Opinion of the Fish and Wildlife Service on the possible effects of the Marine Corps amphibious training program on Camp Lejeune's beaches as well as the Sea Turtle Habitat Management program at Camp Lejeune for the threatened Atlantic loggerhead turtle (Caretta caretta). This letter responds to your request for consultation dated September 13, 1978.

This Biological Opinion is based upon field inspections, associated meetings and discussions with Bases personnel on December 11-12, 1978, January 11-12, 1979, February 27-28, 1979, and on March 22, 1979; review of the Camp Lejeune Habitat Management Guidelines for the Atlantic Loggerhead Turtle; review of pertinent literature, including a draft "Plan for the Recovery and Management of Marine Turtles in the Southeast Region;" and communications with Dr. Frank J. Schwartz of the University of North Carolina Marine Institute, a noted authority on the loggerhead.

On December 12, 1978, the threshold examination concerning this consultation on Camp Lejeune was discussed with Base personnel. An inspection of Onslow Beach revealed heavy use of the beach from Riseley Pier to Onslow South Tower, a distance of about 1.5 miles.

On January 11, 1979, a discussion of the potential impacts to the Atlantic loggerhead turtle was held with the Base personnel. Those specific impacts were: training activities preventing turtles from coming ashore or nesting (false crawls - turtles come ashore but return to sea without nesting), destruction of nests and/or turtles by training activities, young hatchlings prevented from reaching sea by deep ruts caused by tracked and rubber-tired vehicles, lighting on the beach at night disorienting turtles, direct mortality of turtles and/or nests within the Browns Island Impact Area by exploded ordnance, and predation of nests and/or turtles by natural predators and man.



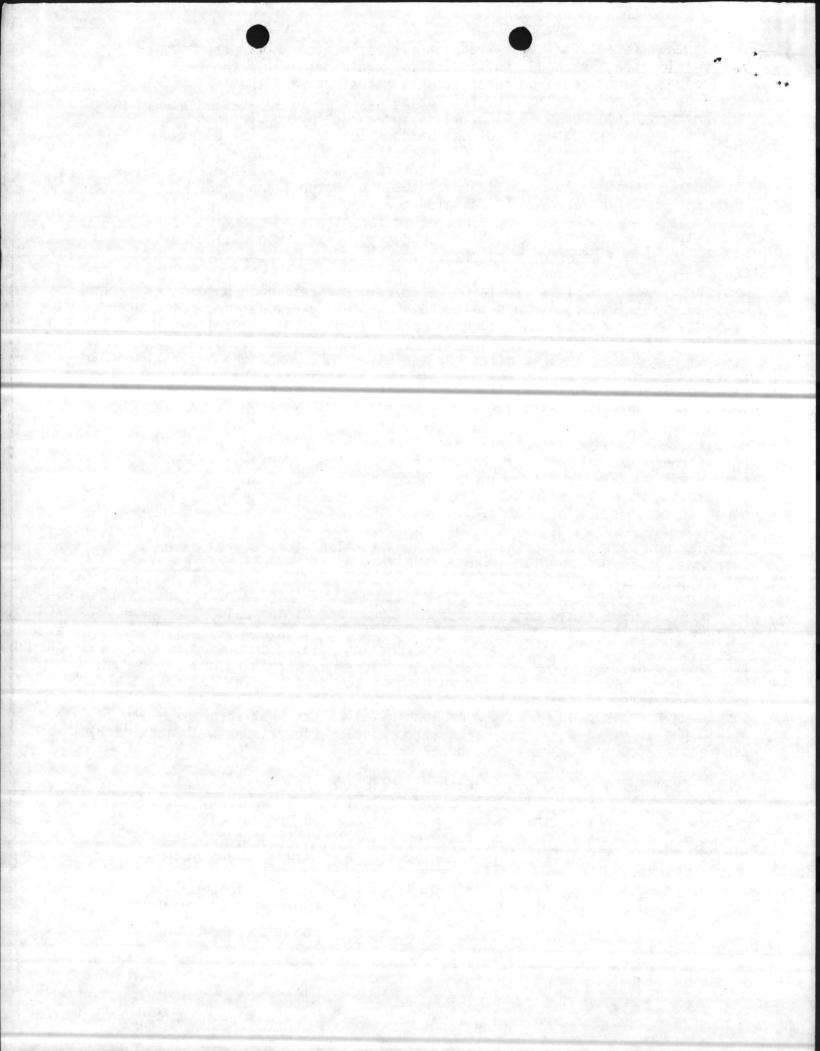
During this discussion, your training officer stated that: 500 meters along the beach was sufficient for training; use of the rest of the beach area could be restricted as necessary; and these restrictions could be enforced. Actions by the Marine Corps would include marking the areas by signs or some other means, promulgating regulations preventing (1) nighttime use of the beaches during the nesting season (May-August), (2) vehicular traffic parallel to the beach outside tidal zones, and (3) disturbance of turtles or nests. Nests within the area of training use would be relocated by Natural Resource personnel to other areas. It was also agreed that tank traps would be prohibited and the causeways needed to facilitate movement would be coordinated with Base Natural Resources personnel, who will take into account the needs of the turtles.

On February 27, 1979, the training restrictions agreed upon on January 11, 1979, were reviewed. At this time the 500 meters previously agreed upon was determined to be inadequate for training. To accommodate the full scope of amphibious training, your command identified an area of approximately 1½ miles between Riseley Pier and the Onslow South Tower as fully adequate for this purpose. It was agreed that vehicle use could be restricted to the tidal zone except for needed egress routes between the beach and the road behind the dunes. While discussions centered around four major egress routes as important to the training mission, a later inspection revealed an additional eight minor egress routes as important to the training mission. We agreed that only nests found within confidence adjacent to the egress routes would need relocation, with the possibility of a few exceptions when noted, such as nests found below high tide.

Arrangements were made to inspect the Browns Island impact area on February 27, 1979. No adverse impacts were identified during this inspection.

On March 22, 1979, this consultation and the draft Biological Opinion was reviewed with you and members of your staff. At this meeting it was stated that restricting vehicle use during training exercises to the tidal zone except for egress routes would hamper training and that, since the number of nests occurring in the area was few (approximately six), all nests in the training area would be relocated. We have no objection to this plan of action as long as all nests that occur within the identified exercise area (from Riseley Pier to Onslow South Tower) are relocated to safe areas elsewhere.

After review of the findings by Fish and Wildlife Service personnel in the Asheville Area Office, it is our Biological Opinion that present ongoing activities on Camp Lejeune's beaches are not likely to jeopardize the continued existence of the Atlantic loggerhead sea turtle. However, we offer the following recommendations to enhance your conservation efforts for this species. These efforts should be made to the maximum extent possible consistent with the training mission and objectives of Camp Lejeune.



Schedule training exercises during the period May though October outside the peak full moon period of each month. This peak nesting period each month is centered around the peak of the full moon, plus and minus three days, for a total of seven days per month.

- Confine training exercises, using the minimum amount of the beach necessary to complete training objectives. This area has been identified through consultation as an area approximately 1½-2 miles long running from Riseley Pier to about the Onslow South Tower.
- 3. Egress routes from the beach to the road behind the dunes should be kept to a minimum. Four major and eight minor passes through the dunes were identified.
- 4. All vehicular travel on the beaches should be restricted to the tidal zone except within the identified exercise area, providing all turtle nests have been <u>removed</u> from that area prior to any landings.
- 5. Tank traps on the beaches should be prohibited.
- 6. During the period May through October, night landings for training purposes should be eliminated or reduced to a minimum level.
- 7. Night lighting during training exercises (May-October) should be at a minimum level or eliminated.
- 8. Other nighttime use of the beaches (recreation, etc.) from May through October should be restricted to those uses not requiring artificial lighting or fires.
- Other activities with potential impacts not addressed in this opinion should be coordinated with the Base Natural Resource personnel and referred to the Fish and Wildlife Service for consultation if adverse or beneficial impacts are perceived as being possible.

 Close monitoring of nesting activities should be continued to detect any long-term trends. The Fish and Wildlife Service would appreciate receiving this data.

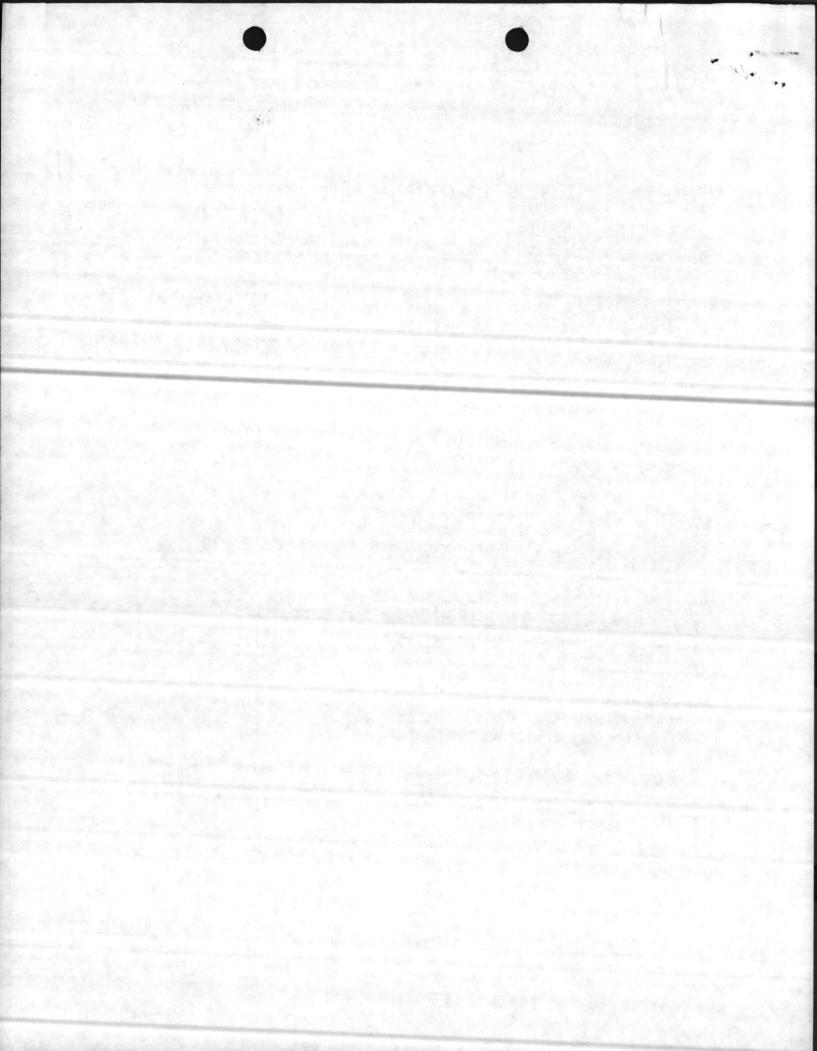
We appreciate the cooperation of your personnel in this consultation and commend Camp Lejeune for its conservation efforts for the Atlantic loggerhead. We hope this will help you fulfill your obligations under the Endangered Species Act.

Sincerely yours,

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Regional Director

3



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

3:PMK:mal 1500 16 June 1980

From: Commanding Officer

To: Commanding General, 2d Marine Division, Fleet Marine Force (Attn: G-3 Training, Captain WILLIAMS)

Subj: Environmental Impact Assessment (EIA) for proposed .50 caliber Machine Gun Range at North Onslow Tower; submission of

Ref: (a) CG, 2d MarDiv ltr 3/HCW/jly over 1500 dtd 27 Sep 1979

(b) BO 11000.1

(c) BO 11015.7 (d) Natural Resource Management Plan for CINC dtd March 1975

(e) Camp Lejeune Special Map, Combat Training Chart, Approaches to New River - scale 1:50,000

Encl: (1) SECTION I OF EIA - Introduction w/two project diagrams

(2) SECTION II OF EIA - Relationship of Proposed Action to Land Use Plans

(3) SECTION III OF EIA - Probable Impact of Proposed Action on the Environment

(4) SECTIONIV OF EIA - Alternatives

(5) SECTION V OF EIA - Any Probable Adverse Environmental Effects which cannot be avoided

(6) SECTION VI OF EIA - Relationship between Short Term Use and Long Term Use

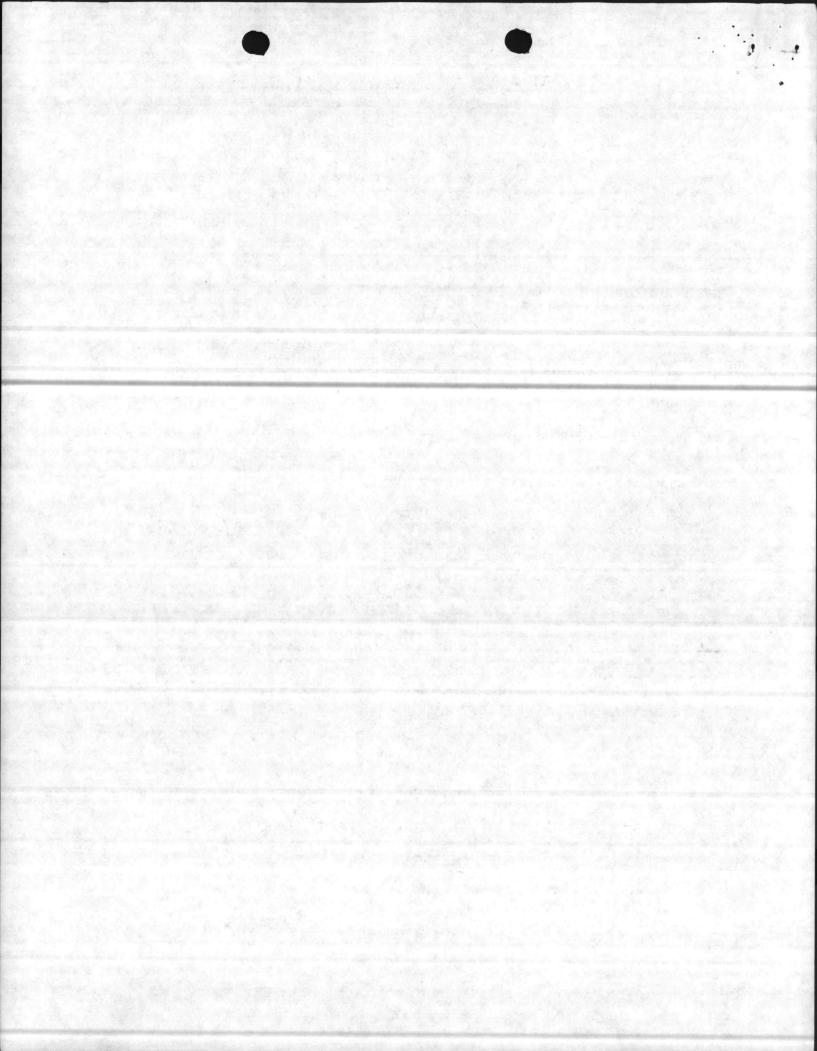
(7) SECTION VII OF EIA - Irreversible and Irretrievable Commitments of Resources

(8) SECTION VIII OF EIA - Summary Sheet

1. In accordance with reference (a), the subject Environmental Impact Assessment (EIA) was developed. As per instructions in reference (b) the body of the EIA is divided in seperable sections. These sections correspond to enclosures (1) through (8).

2. Point of contact at this command is 1ST LT. M. P. KNOBEL, telephone is 7333/7320.

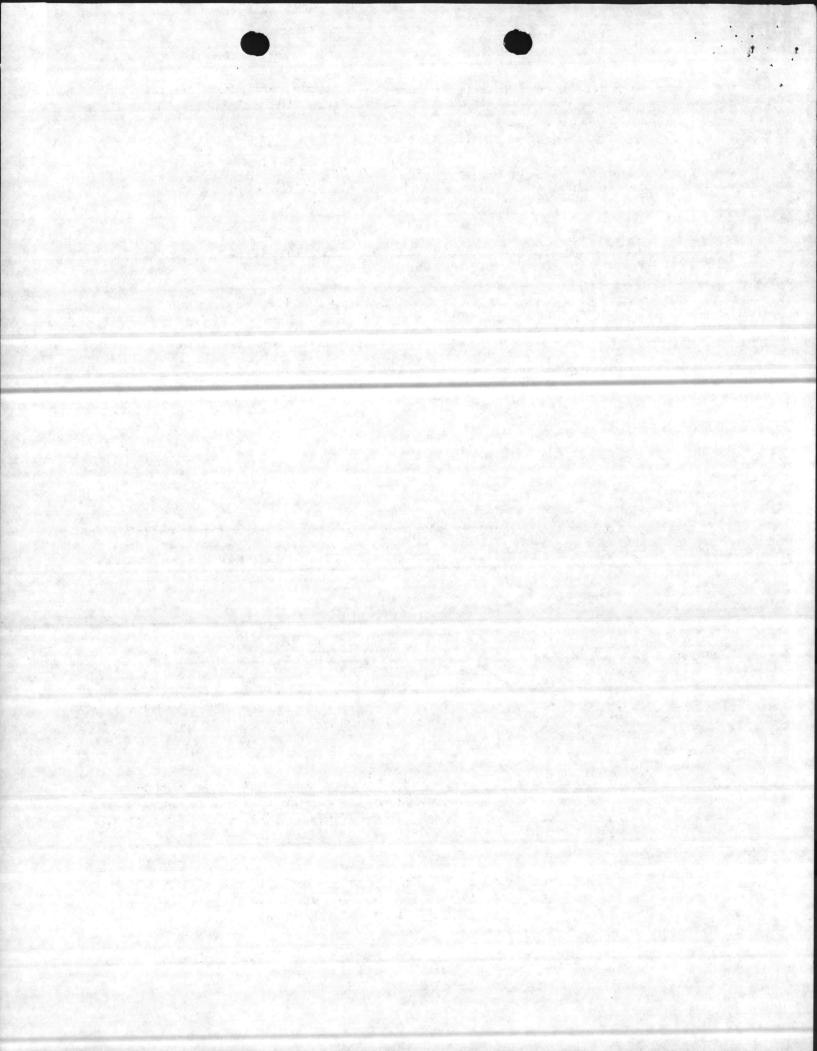
F. M. SLOVIK



# SECTION I - Introduction with Two Project Diagrams

# 1. Project Description

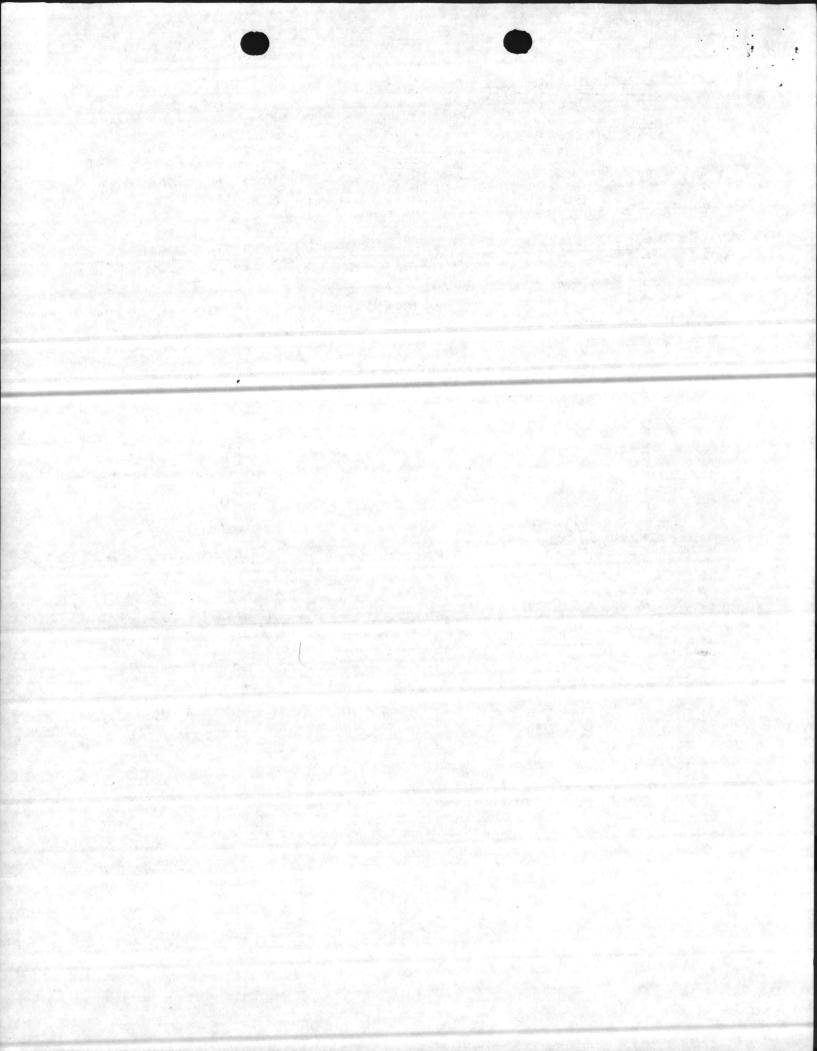
- a. The proposed project is a heavy machine gun range which is to be located on Onslow Beach aboard Marine Corps Base, Camp Lejeune, North Carolina. The firing line would be established in the immediate vicinity of North Onslow Tower, grid coordinate 933288 of reference (e). The impact area will be the present N-1 Impact Area and the Browns Island Target and Bombing Area BT-3.
- b. It is perceived that the North Onslow Tower heavy machine gun range would be used primarily by units of the 2d Assault Amphibian Battalion of the 2d Marine Division. The .50 caliber machine gun would be the heaviest weapon fired with the 7.62mm machine gun also being used. The maximum ranges for these weapons are as follows:
- c. The proposed firing line is a 75 meter stretch of beach immediate—
  ly northeast of Onslow Tower. The firing line is on the seaward side of
  the sand dunes running parallel to the high water mark (fig 1). For safety
  reasons, no more than three vehicles will be on the firing line at once
  with a 25 meter interval between firing vehicles. The Range Officer—in—
  Charge will be stationed in the existing North Onslow Tower. This gives
  him communication with Range Control, a clear view of the entire range,
  all avenues of approach, and the impact area. All of this is located just
  inside the buffer zone of the N-1 Impact Area (fig 2).
- d. The left and right boundaries will extend from the beach seaward out to at least 6,800 meters. Locally fabricated buoys will be placed to mark this range fan. These buoys, as well as target platforms, would be anchored into place by assault amphibian vehicles prior to firing. At the conclusion of the firing exercise they will be retrieved for future use. The impact area is entirely within the present N-1 Impact Area.
- e. Access to the proposed range would be along any of the following four routes:
- (1) The first route is along Ocean Drive, the improved dirt road that runs north-south in front of Second Reconnaissance Battalion's area and the Base Special Services' cabannas. Access to the beach can be accomplished via a break in the sand dunes approximately 200 meters north of the last Special Services trailer. This break in the dunes is presently used for vehicular traffic. Once on the beach, vehicles can continue north on the waterline until reaching North Omslow Tower.



- (2). The second method would be to continue north from the end of Ocean Drive to the access road that goes between the dunes to the base of North Onslow Tower and ends at the waters edge (fig 1). This route is also presently being used for vehicular traffic.
- (3). The third route is to travel north along the waters edge from Riseley Pier to the North Onslow Tower. This route is obviously restricted to the months that the beach is closed to recreation.
- (4). The last option would be used only by 2d Assaul. Amphibian Battalion. The vehicles would enter the water from the tactical beach area south of Riseley Pier and swim to the range site.
- f. All the above routes utilize existing roads/areas designated for vehicular traffic. At no time would there be foot or vehicle traffic on the sand dunes.

#### 2. Project Purpose

- a. The purpose of the proposed action is to establish a more efficient heavy machine gun range than is presently available. Current usable ranges for .50 caliber firing are the G-5 and G-7 ranges aboard Camp Lejeune. For calendar year 1980 it is projected that these ranges will be used for approximately 160 training days. While utilizing these ranges the primary interference/hinderence to firing is the waterborne traffic on the Intracoastal Waterway.
- b. Year around, large numbers of commercial and private craft utilize the Intracoastal Waterway, passing directly through the N-1 Impact Area and the line of fire of the G-5 and G-7 Ranges. During the warmer months, waterborne traffic increases dramatically as recreational boats begin to use the Intracoastal Waterway.
- c. For the G-5 and G-7 ranges to be used range guards must be positioned in the North Onslow Tower and the Bear Creek Tower. Additionally, two range guard boats must be positioned along the waterway to control access to the N-1 Impact Area. During the conduct of a shoot, the guard boats can only stop traffic on the Waterway for a short period of time. During these delays weapons firing must cease to allow the boats through. On many occasions civilian craft will not heed the Guard Boats and warning signs and will proceed into the line of fire and thereby activating emergency procedures for cease fire.
- d. These lengthy delays, potentially dangerous situations and frequent interruptions continue to plague units trying to conduct live fire training exercises. These elements have proven to be a constant source of frustration and are responsible for an immense waste of valuable training time.
- e. The proposed North Onslow Tower heavy machine gun range would have a minimum of interferences that now plague the present ranges. The proposed range would add significantly to familiarization and proficiency firing capabilities of all units using .50 caliber machine guns.



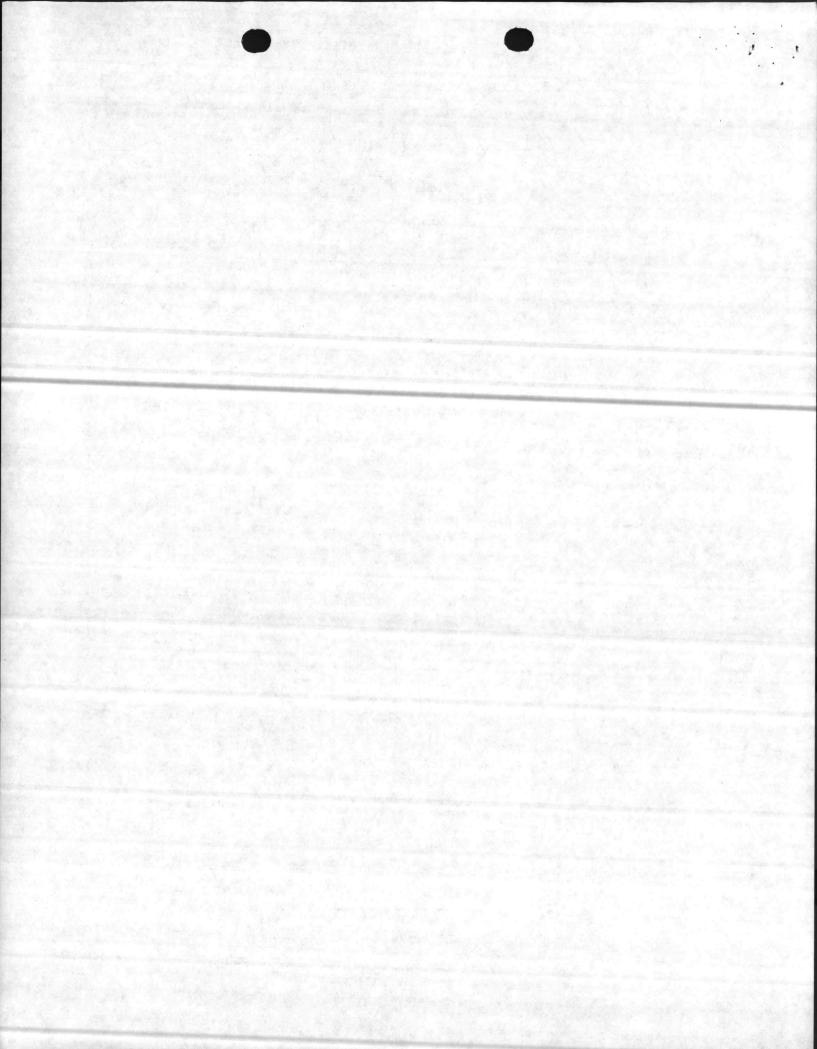
# 3. Existing Environment of Proposed Site

- a. General. The proposed range is located along Onslow Beach, Marine Corps Base, Camp Lejeune, N.C. This area is fairly representative of the North Carolina coastal areas. Technical information and data contained in this section was obtained from the Natural Resource Management Plan for Camp Lejeune, N.C. dated March 1975, prepared by the Marine Corps Base and Onslow Soil and Water Conservation District assisted by the Soil Conservation Service, U.S. Department of Agriculture.
- b. Geology. Located seaward of the beach dunes, the proposed range site is on Newhan type soil. The firing line is on a two to fifteen percent slope, comprising the beach proper.
- c. Air Quality. Camp Lejeune is located far from any industrial centers or other major sources of air pollution. Consequently, the air quality is quite good.
- d. <u>Vegetation</u>. The vegetation indigenous to Newhan soils consists of schrubs, e.g. myrtle, yaupon, live oak and silverling. Other plants such as sea oats, big tlue sterm, beach pea, beach grasses and rush are also found in this soil.
- e. <u>Wildlife</u>. The wildlife inhabiting Onslow Beach and adjacent areas are those commonly found throughout the coastal region of the Carolinas. The following is a list of wildlife common to the area; white tail deer, river otter, Wilson's snipe, clapper rail, coots, ruddy duck, American scooter, surf scooter, green-winged teal, hooded merganser, red breasted morganser, shear waters, fulmars, storm petrels, topic birds, pelicans, gannets, cormorants, oyster catchers, plovers, turnstones, sandpipers, phabroper, jaegers, gulls, terms and skimmers.
- f. Endangered Species. Two endangered species can be found within the proposed range firing point and associated impact areas. The Atlantic Loggerhead Turtle (Caretta caretta) may come ashore onto any of the Atlantic Ocean beaches at Camp Lejeune for the purpose of nesting. The nesting season is during the period May through October. The peak nesting period each month is centered around the peak of the full moon, plus or minus three days, for a total of seven days per month.

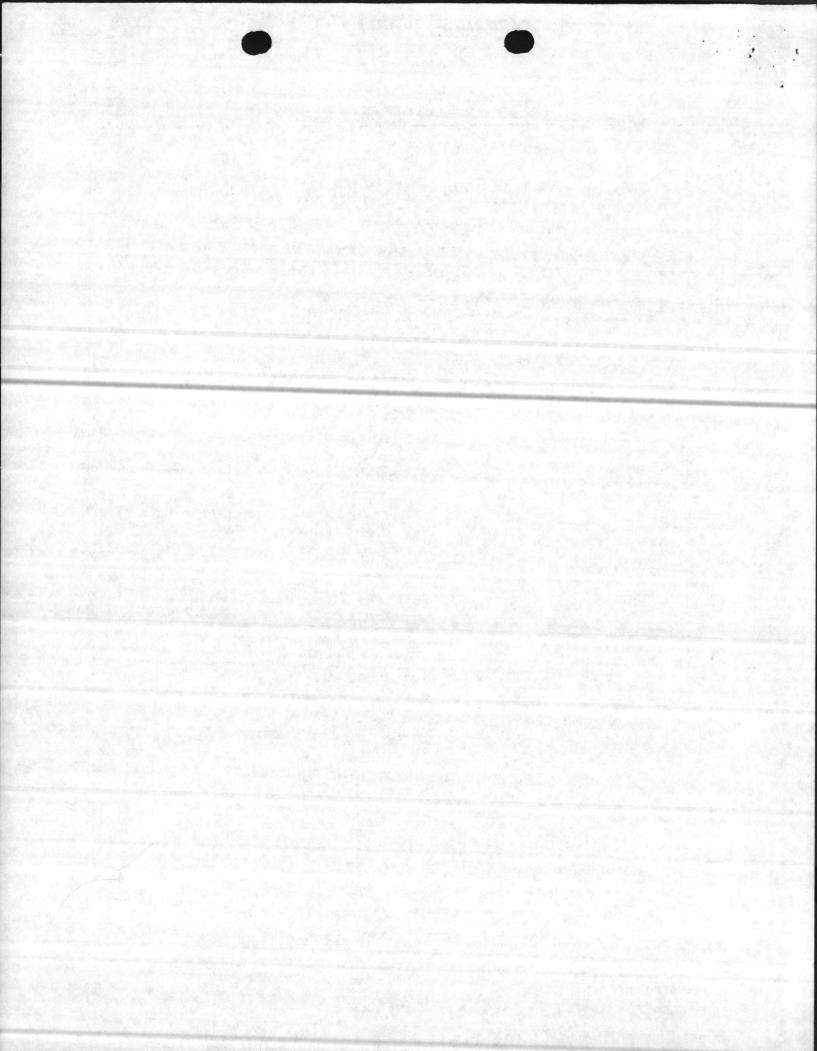
The Brown Pelican is an endangered species common to the coastal areas of Camp Lejeune.

Discussion of the impact this proposed range may have on these two endangered species is contained in Section III of this report.

g. Recreation. Marine Corps Base, Camp Lejeune, has established a portion of Onslow Beach for recreational use. The recreational area boundaries are Riseley Pier on the south and North Onslow Tower to the north. Possible impact on this area will be discussed in Section III.



Assault Amphibian Vehicles with .50 calibre machine guns and dunes NORTH ONSLOW TOWER SCALE APPOXIMATE (FIGURE 1)



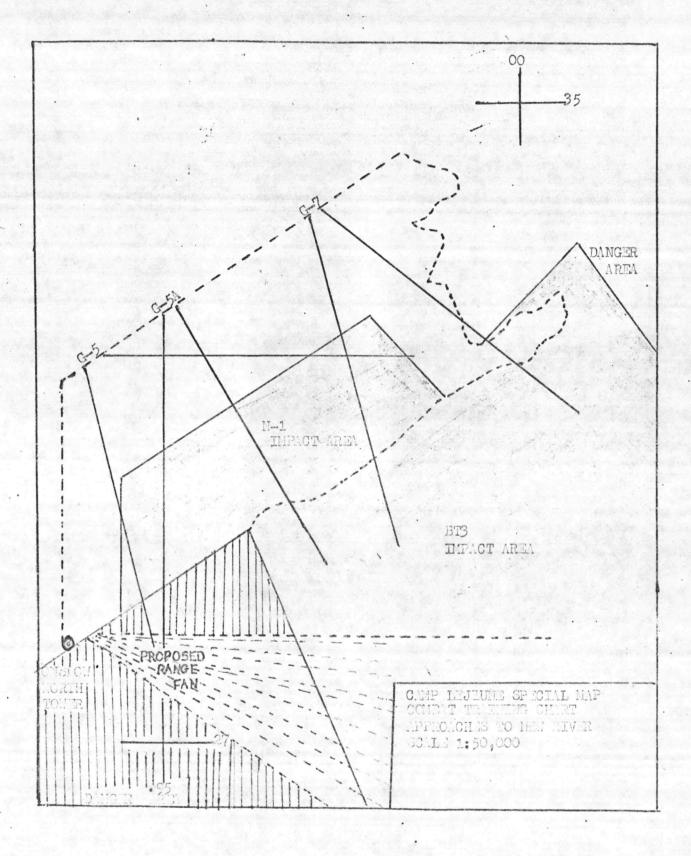
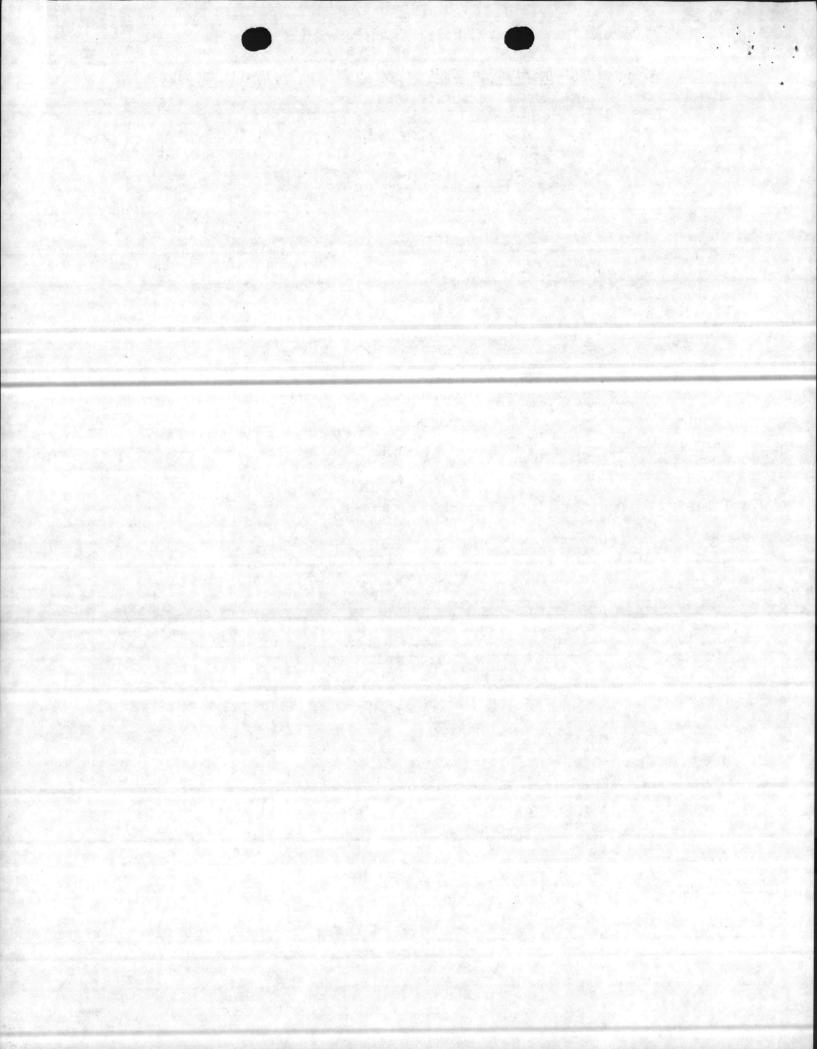


FIGURE (2)

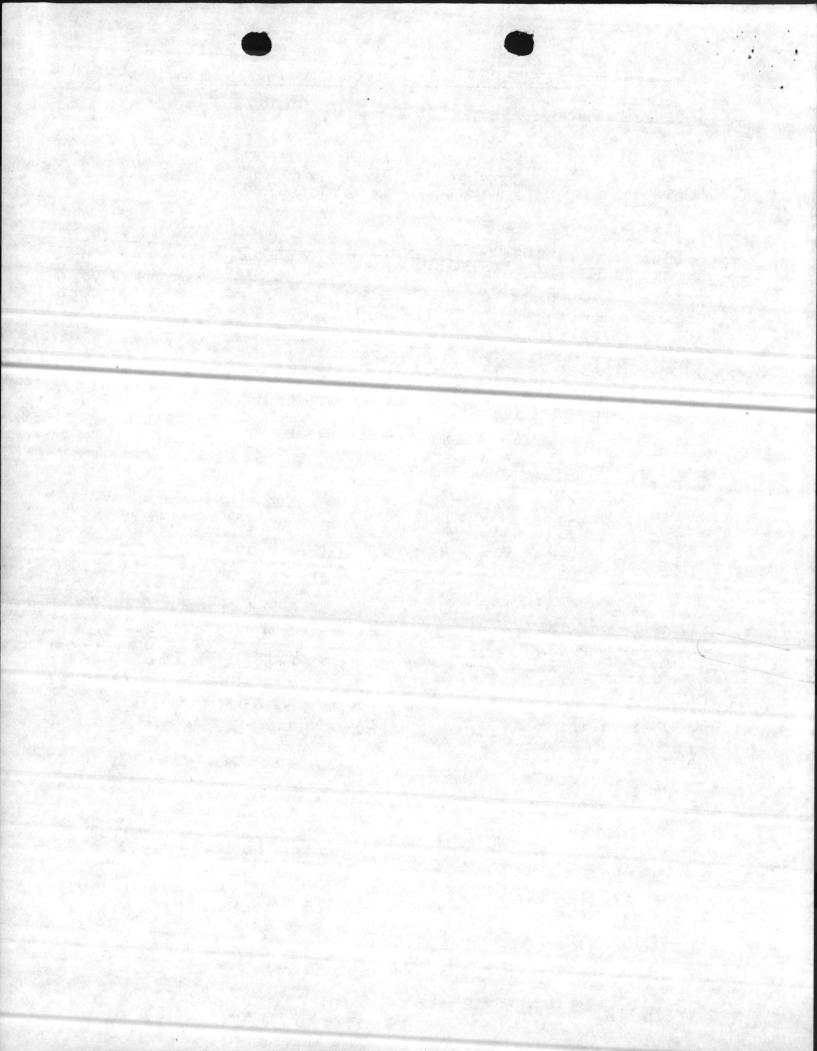
ENCLOSURE (1)



SECTION II - Relationship of Proposed Action to Land Use Plans

# 1. Area within Camp Lejeune

- a. Reference (d) establishes a multi-use concept for the land at Camp Lejeune. It states the primary uses as (1) military training, (2) forestry, (3) wildlife and (4) recreation. This multi-use concept applies to all land except impact areas and demolition ranges.
- b. Marine Corps Base, Camp Lejeune, is the primary East Coast training base available to the Fleet Marine Force. The present training areas conform to the intended primary use of the land. The proposed heavy machine gun range at North Onslow Tower would likewise be using the land as it was intended to be used.
- c. The area of the proposed firing line is a buffer zone to the N-1 Impact Area. As such, utilizing the land as a live fire range would conform to its present primary land use designation.
- 2. Outside Camp Lejeune. The land surrounding Camp Lejeune is used primarily for residence, agriculture and recreation purposes. The water area affected by the proposed range fan is already designated a restricted area due to live firing. The proposed firing point and range fan would have no affect on the areas surrounding Camp Lejeune.
- 2. Summary. The proposed heavy machine gun range conforms to intended land use plans and could be adopted without having to redesignate any primary land use areas.



SECTION III - Probable Impact of the Proposed Action on the Environment

# 1. General

- a. The proposed .50 caliber machine gun range at North Onslow Tower will not result in any significant impact on the quality of the environment. As with present ranges, range planning and utilization will incorporate regulations and measures to ensure safety and adherence to environmental safeguards.
- b. There are four possible impacts that could occur if the North Onslow Beach Range is established. These impacts are the categories of noise and air quality, soil and vegetation, recreation and endangered species.

#### 2. Noise and Air Quality

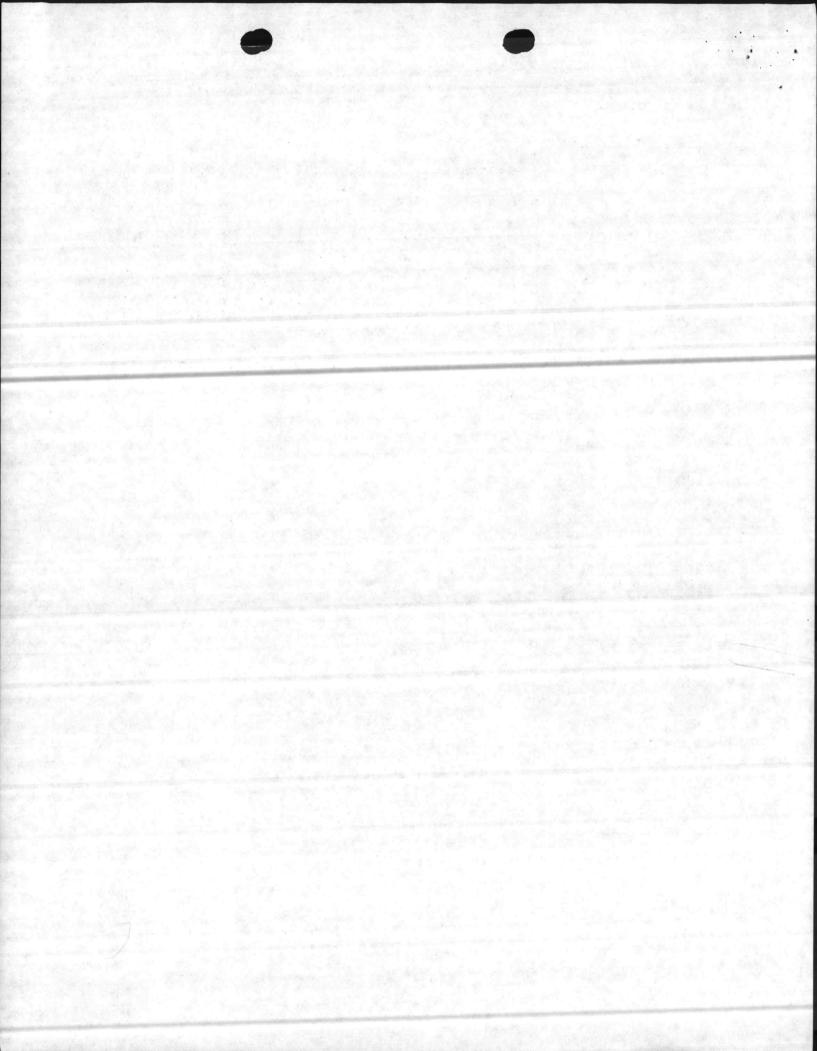
- a. There are sporadic, high noise levels generated by weapons firing and the operation of tracked vehicles. As with the present ranges, the proposed range is located in the existing buffer zone (Section I, fig 2) and noise from the weapons firing would be the biggest concern.
- b. The firing line has sand dunes on one side and the surf on the other. The dunes would act like a sound buffer and the surf would muffle the loud noises. These two factors plus the continuous off shore breezes would all combine to effectively minimize the noise from weapons.
- c. During a firing exercise smoke and exhaust is emitted from the weapons and vehicles. However, these emissions are highly localized and of such short duration and volume no adverse effects can be expected.

# 3. Soil and Vegetation

- a. The proposed firing line is located on the beach proper. The dunes behind it are ecologically unstable with sea oats planted in them to resist erosion. However, there will be no vehicular or foot traffic on the dunes or fore dunes. As illustrated in figure (1) Section I, there exists ample foot and vehicle paths into and around the beach and dunes. Therefore, there does not seem to be any adverse effects expected to the dunes or the vegetation on the dunes.
- b. When tracked vehicles make sharp turns various amounts of soil and vegetation will displace. Operation of wheeled and tracked vehicles in the area may have a long term effect on existing inland paths and roads. However, if the water route to the range was used consistently any possible adverse effects on the inland soils would be extremely minimal.

#### 4. Recreation

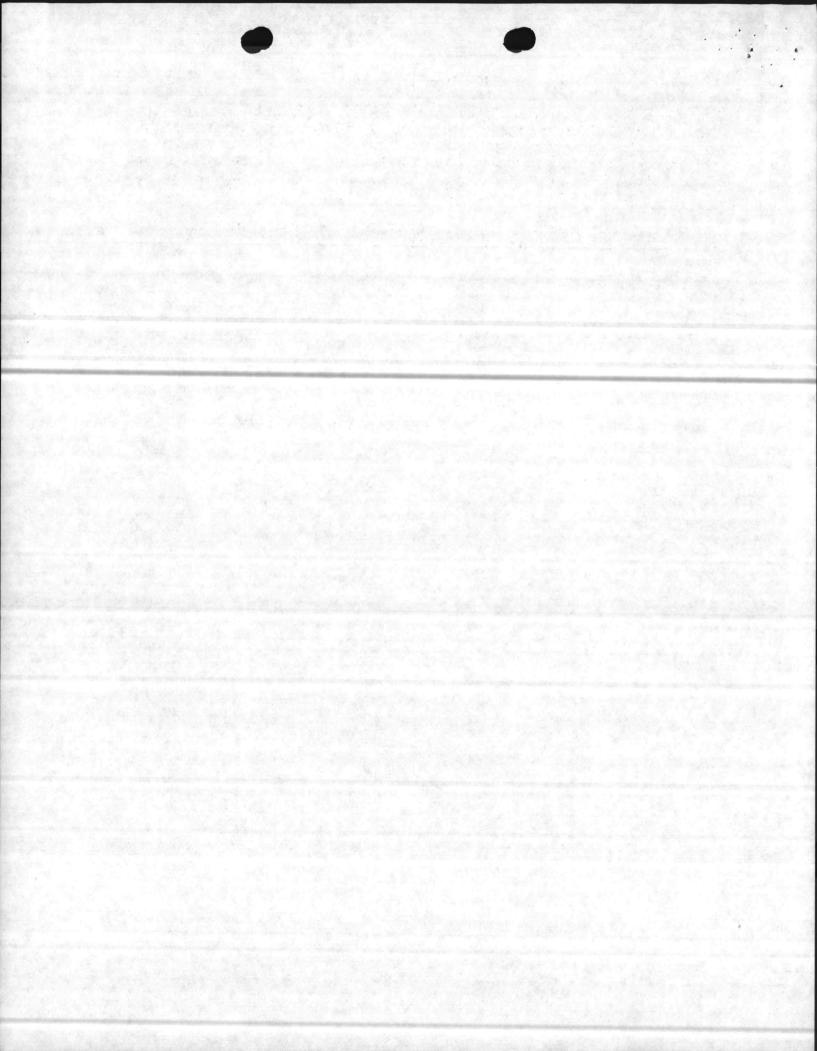
a. Access and egress to the proposed range can be done without interferring with present recreational areas of Onslow Beach (see Section I for available routes). The range site is designated for military training use as it is located in the buffer zone of the N-1 Impact Area (see figure (2) in Section I).



b. Noise should not be a significant problem. The sand dunes, surf and wind should enable firing to take place without disturbing the recreation part of the beach.

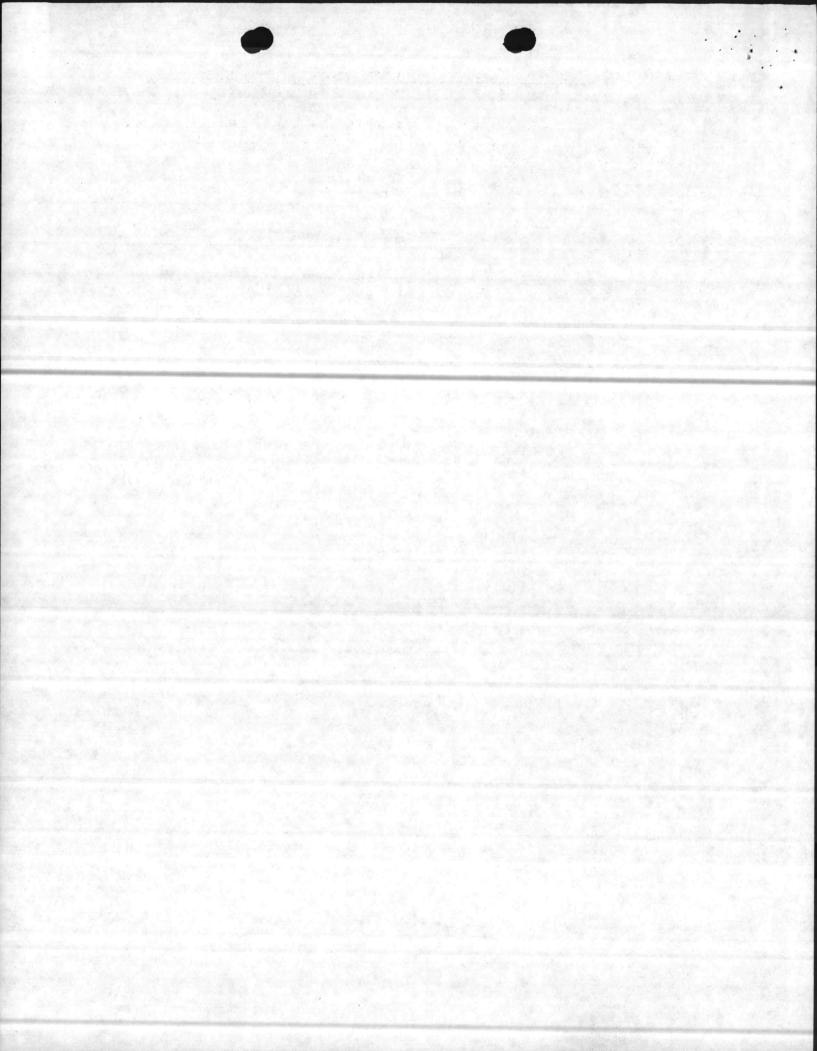
# 5. Endangered Species

- a. The Atlantic Loggerhead Turtle is the only endangered species that may possibly be affected by the proposed range. This turtle may come ashore onto any of the Atlantic Ocean beaches at Camp Lejeune for the purpose of nesting. The nesting season is during the period May through October. A peak nesting period each month is centered around the peak of the full moon, plus or minus three days, for a total of seven days per month.
- b. There is nothing in paragraphs 3a (1) through (11) of reference (c) that could not be complied with in utilizing the proposed range. However, to minimize any perceived problems, night firing/bivouac areas could be eliminated during the peak nesting periods.
- c. Because of the ability to stay within regulations contained in reference (c), it seems that there would be no increased threat to this endangered species if the proposed range becomes operational.



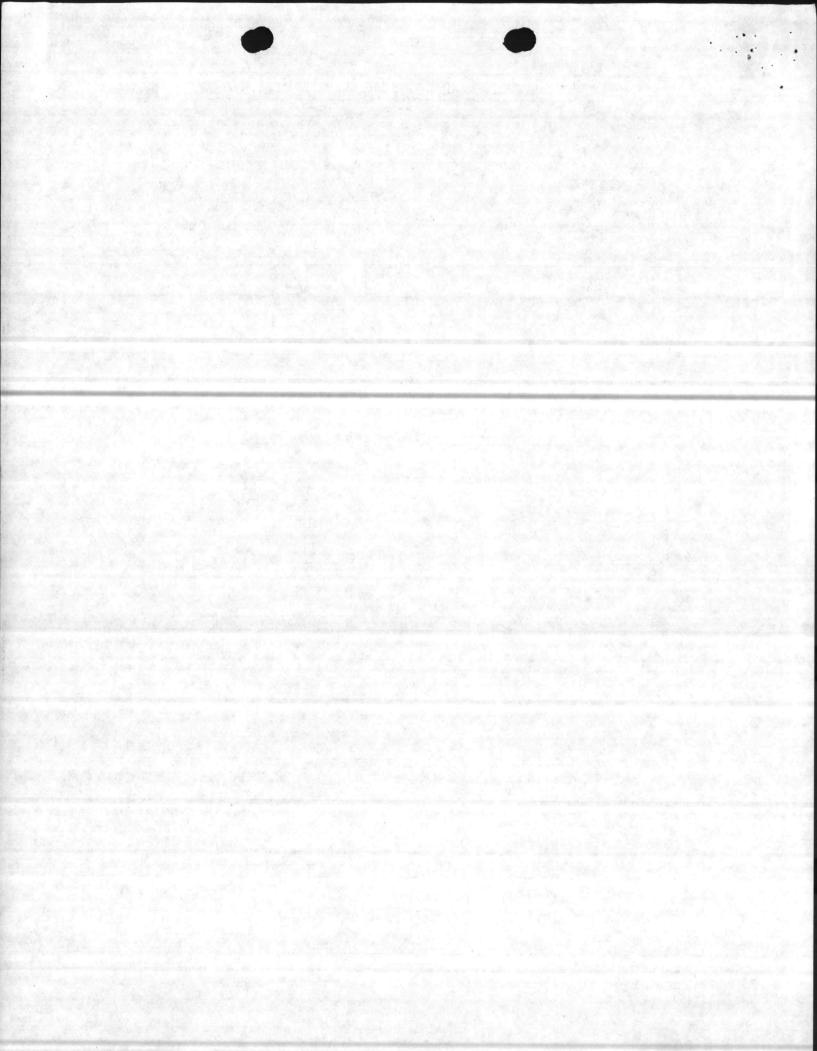
#### SECTION IV - Alternatives

- 1. The long range of the .50 caliber machine gun (6,800 meters) limits the number of alternate range sites. One alternative would be to have a heavy machine gun range located in the vicinity of South Onslow Tower. This area is rather secluded and the existing tower would afford a clear observation of the area. However, the firing line is not in an established buffer zone nor is there an existing impact area.
- 2. Another alternative is to review the present operation of the G-5, G-5A and G-7 ranges to see if the present limitation to firing can be eliminated.



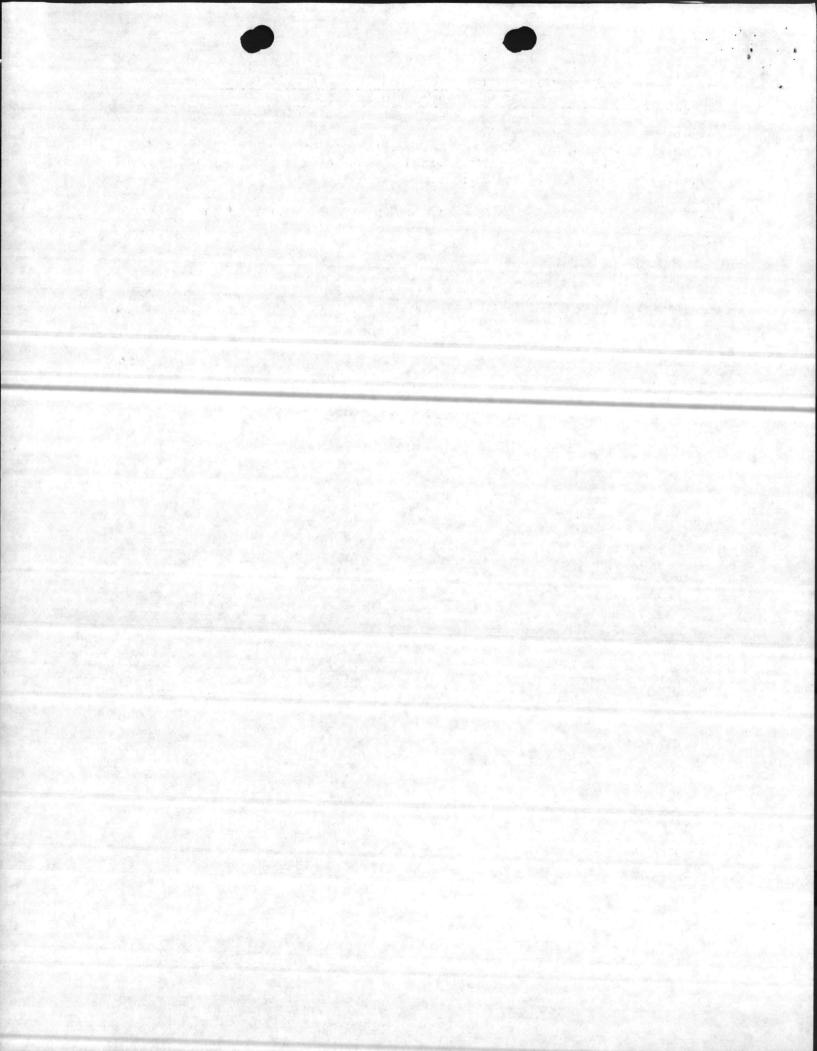
SECTION V - Any Probable Adverse Environmental Effects which cannot be avoided should the Proposed Range be Implemented

- 1. The roads immediately inland and the beach between the sand dunes and high water mark are the only areas to receive any traffic. Geologically, this is the only unavoidable adverse effect to the soil.
- 2. Despite protective measures established in reference (c) there is still the chance for adverse effects on the loggerhead turtle. Strict adherence to existing regulations plus any additional guidelines will be followed. However, there is an extremely low level of additional risk involved for the loggerhead turtle.
- 3. Except for the expected minimal effects discussed above, all adverse environmental effects can be avoided. This is because:
  - a. Proposed range would utilize existing tower structure.
  - b. No vehicular or foot traffic would go on the sand dunes.
  - c. The proposed range site is already located in a buffer zone.
  - d. The impact area is already established.
- e. The physical layout of the proposed site provides for ample access/egress routes.



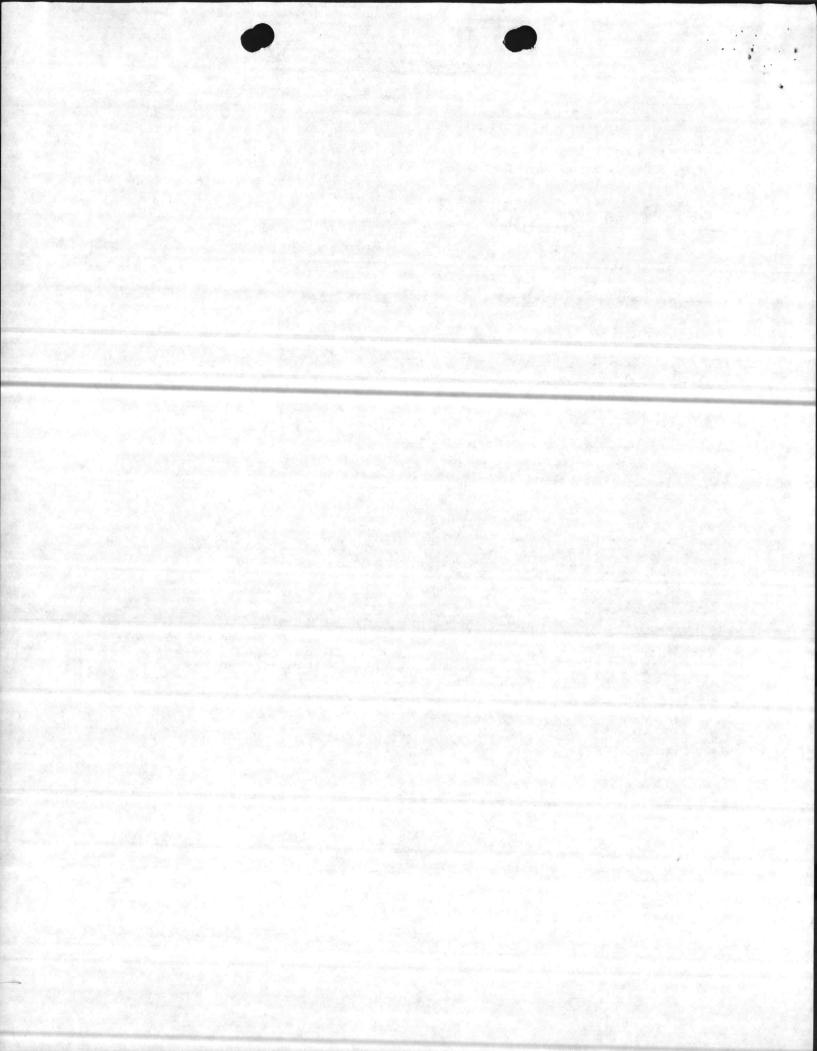
# SECTION VI - The Relationship between Local Short-Term Use and Long-Term Productivity

1. There does not appear to be any conflicts or tradeoffs between shortrun environmental gains and the expense of long-term losses. The proposed
action is not requiring any primary land use redesignations, new constructions, significant environmental impacts or other notable consequences. Therefore, there is no reason to assume that the proposed action forecloses any
future options for the area. Through administrative direction the area can
return to its pre-range state simply by stopping live fire exercises.



# SECTION VII - Irreversible and Irretrievable Commitments of Resources that would be involved in Implementation of Proposed Action

- 1. A minimum of resources are required to make the proposed range operational. Some warning signs marking the firing line are the only fixed items that would be needed. The North Onslow Tower as it presently exists offers superb range observation.
- 2. Target platforms and range fan buoys would be fabricated and emplaced by using units and retrieved after each use. Nothing permanent will be left in the water.
- 3. There are no natural/cultural resources that would be committed to loss or destruction. In view of all of the above, adopting the proposed range would not involve a commitment of irreversible or irretrievable resources.



# SECTION VIII - Summary Sheet

# 1. Proposed Action

- a. The proposed action is a .50 caliber machine gun range in the vicinity of North Onslow Tower located on Onslow Beach aboard Marine Corps Base, Camp Lejeune, N.C. This heavy machine gun range's firing line would be at the high water mark firing seaward into the BT-3 Impact Area. The firing line is aboard MCB, Camp Lejeune and the impact area is presently being used for other live fire and bombing exercises.
- b. This is an administrative action requesting authorization to fire at the requested site.

#### 2. Environmental Impact

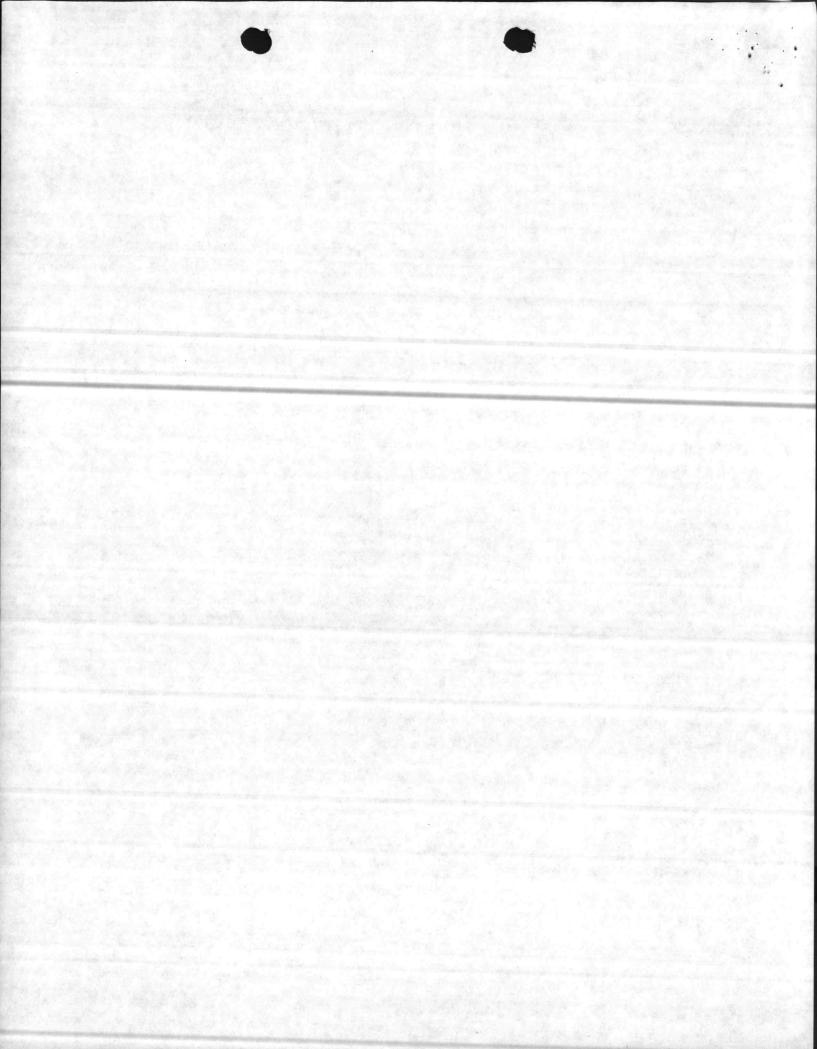
- a. Four different access/egress routes are available. All use existing right-of-ways, roads, etc. No foot or vehicular traffic would take place on the sand dunes. Travel to and from the range would pose no significant environmental effects.
- b. The Atlantic Loggerhead Turtle inhabits the proposed range site, as it does all North Carolina beaches facing the Atlantic Ocean. Reference (c) sets forth protective measures.

Range operation can easily comply with regulations currently in effect. However, to minimize any perceived threat to the endangered species, night time firing and bivouac areas could be eliminated during the peak nesting periods of the nesting season.

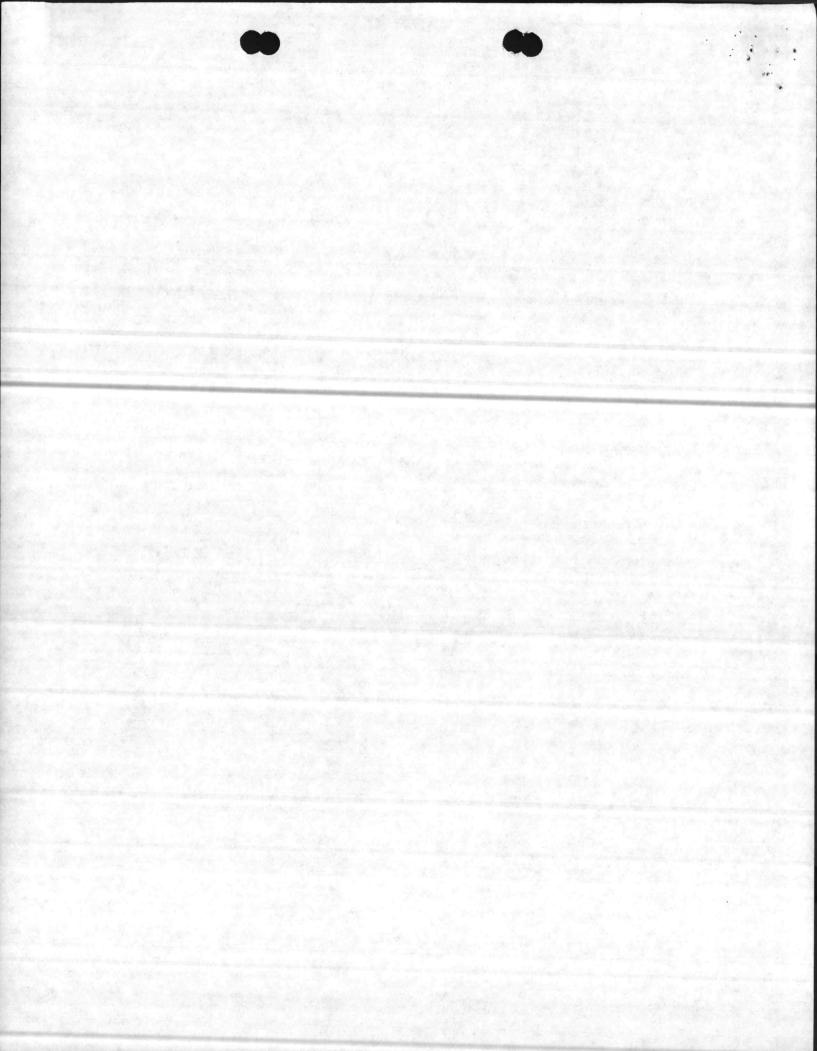
c. Noise from the weapons firing should be held to a minimum due to the sand dunes, surf and wind. These three factors should combine to effectively minimize noise disturbance.

# 3. Alternatives

- a. Due to the long range of .50 caliber rounds (6,800 meters or about 2.8 miles) alternate range sites are very limited.
- b. One possible site would be at vicinity of South Onslow Tower. This area is not in a buffer zone nor is there an established impact area for it.
- 4. This Environmental Impact Assessment is a draft requesting authorization to fire heavy machine guns at Onslow Beach.



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# 2D MARINE DIVISION, FLEET MARINE FORCE CAMP LEJEUNE, NORTH CAROLINA 28542

3/HCW/jly 1500 27 Sep 1979

From: Commanding General

To: Commanding Officer, 2d Assault Amphibian Battalion

Subj: Firing of the M-85/50 Caliber Machine Gun from

Onslow Beach into the BT-3 Impact Area.

Encl: (1) CG MCB ltr TFAC/WJF/ves 1500 dtd 21 Sep 79

(2) BO 11000.1 (3) BO 11015.7

- 1. Enclosure (1) provides a response and guidance for conducting the subject training.
- 2. This command will develop the required environmental impact assessment. Assistance from 2d Assault Amphibian Battalion will be necessary. Point of contact at this command is Captain H. C. WILLIAMS, Telephone 3026.

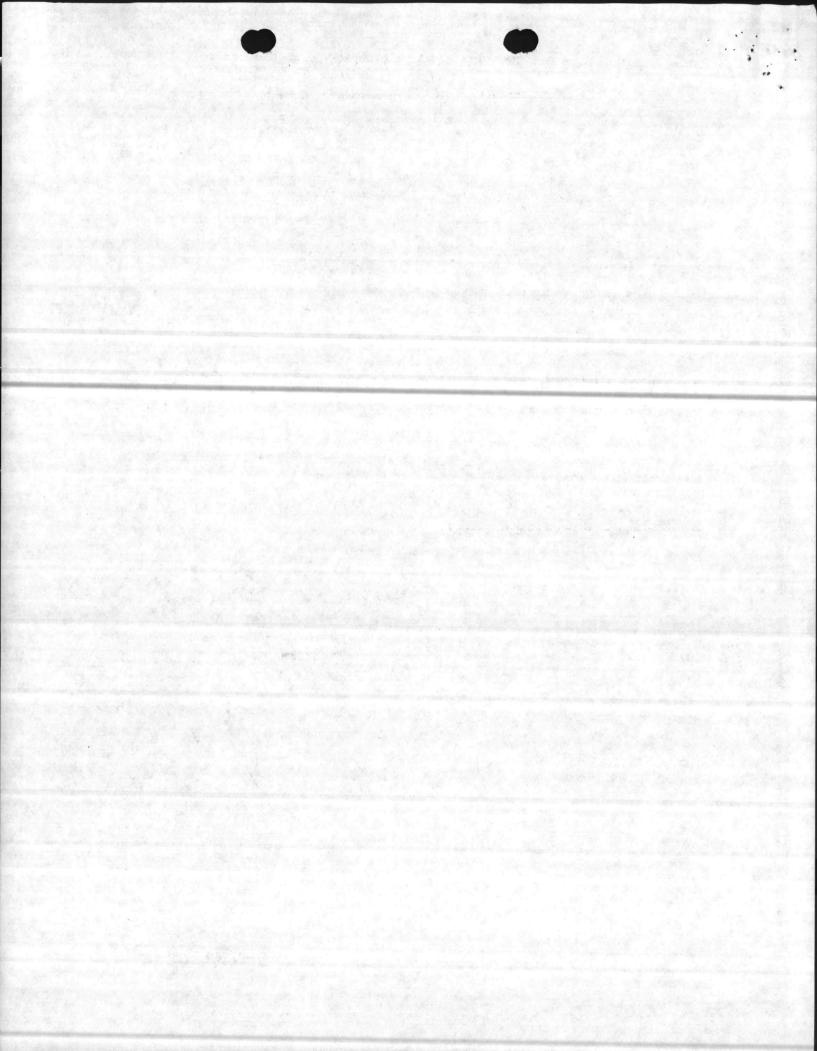
direction

3. Enclosure (2) and (3) are provided for information only.

4. Request your command provide a point of contact no later than 5 October, 1979.

A CHOS

-7





# UNITED STATES MARINE CORPS MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 25542

IN REPLY REFER TO

TFAC/WJF/ves 1500 SEP 2 1 1979

From:

Commanding General

To:

Commanding General, 2d Marine Division, Fleet Marine

Force, Camp Lejeune, North Carolina 28542

Subj:

Firing of the M-85 .50 Caliber Machine Gun from Onslow

Beach into the BT-3 Impact Area

Ref:

(a) CG, 2d MarDiv 1tr 3/GSN/jnp over 1500 dtd 13 Apr 79

(b) B Maint O ltr MAIN/JIW/th over \$240/19 dtd 27 (attached)
Aug 79

(c) BO 11000.1 w/ch 1

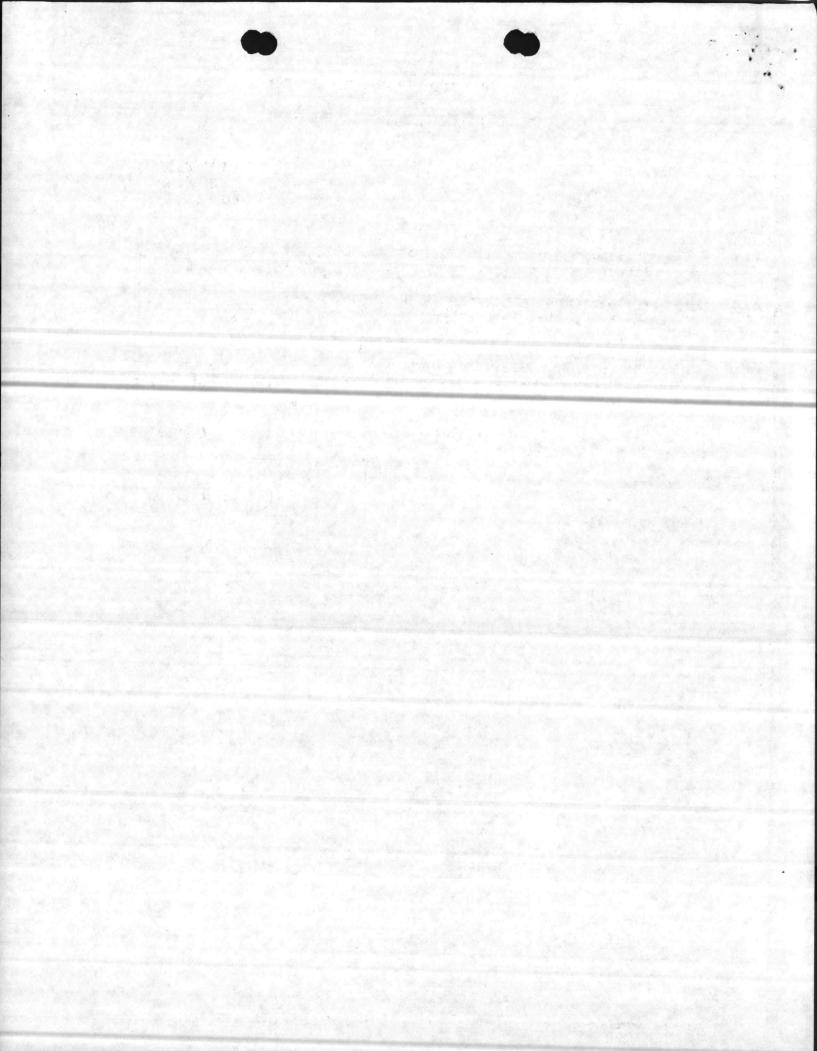
1. Reference (a) requested authorization for the 2d Assault Amphibian Battalion to fire .50 caliber and 7.62MM machine guns from the immediate vicinity of Onslow North Tower into the BT-3 Impact Area.

2. It was determined by reference (b) that in order for the area around Onslow North Tower to be opened as a live firing position an environmental impact assessment would be required. Reference (c) contains information on preparation and submission of the assessment.

IT. M. STIKES, JR.

By directing





# BASE MAINTENANCE DEPARTMENT Marine Corps Base Camp Lejeune, North Carolina 28542

MAIN/JIW/th 6240/19 AUG 2 7 1979

Base Maintenance Officer From:

To:

Assistant Chief of Staff, Training
As Discussed
As Discussed
As Discussed
31 904 79. Via:

Firing of the M-85 .50 Caliber Machine Gun from Onslow Beach Sub.j: North Tower into the BT-3 impact Area; comments on

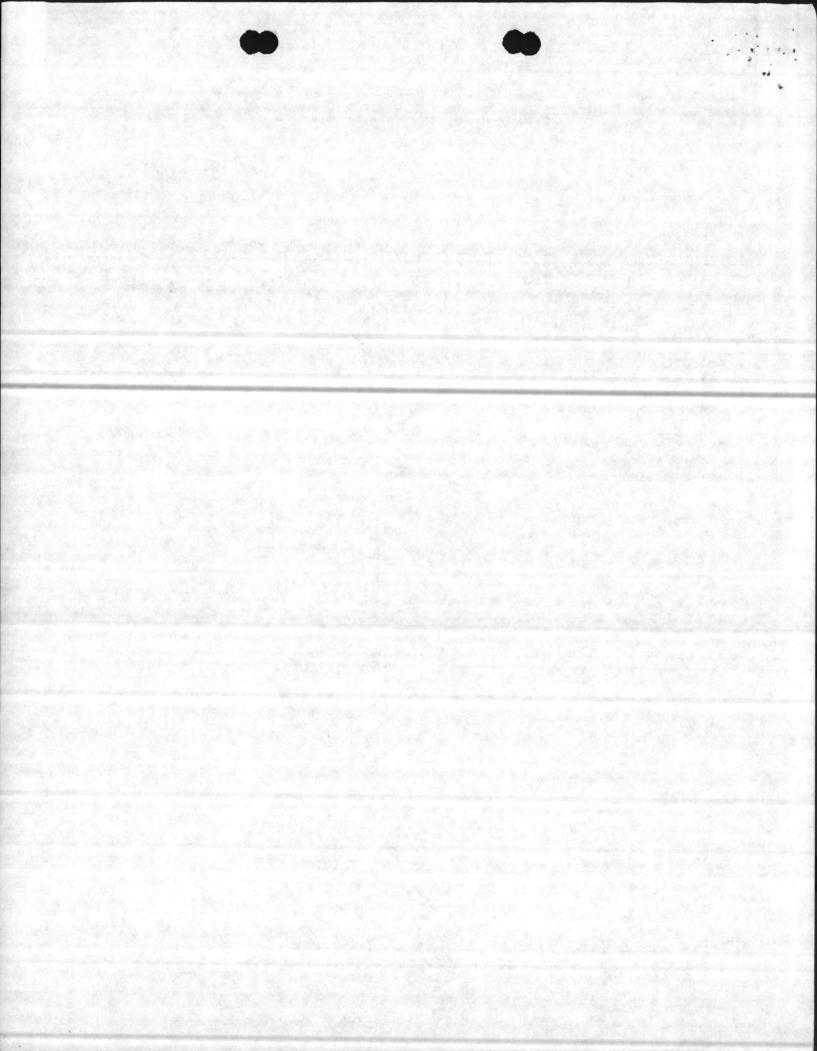
(a) TrngFac Itr TFAC/WJF/ves 1500 dtd 13 Aug 79 Ref:

(b) CO, 2dAsItAmphBn Itr 3/CFN/ksh 1500 dtd 11 Apr 79

(c) FoneCon btwn Mr. Gary Henry, US Fish & Wildlife Service, and Mr. Julian Wooten, BMaintDept, on 24 Aug 79

- 1. As per reference (a), reference (b) has been reviewed. An environmental impact assessment of the proposed action is required.
- During reference (c) Mr. Henry advised reconsideration of the Atlantic Loggerhead Sea Turtle (Caretta caretta) biological opinion would be necessary.

Acting



TRAINING FACILITIES BRANCH Marine Corps Base Camp Lejeune, North Carolina 28542

TFAC/WJF/ves 1500 13 August 1979

Training Facilities Officer From:

Assistant Chief of Staff, Facilities (Attn: Director, To:

Natural Resources Division)

Assistant Chief of Staff, Training 14 lug 79 Via:

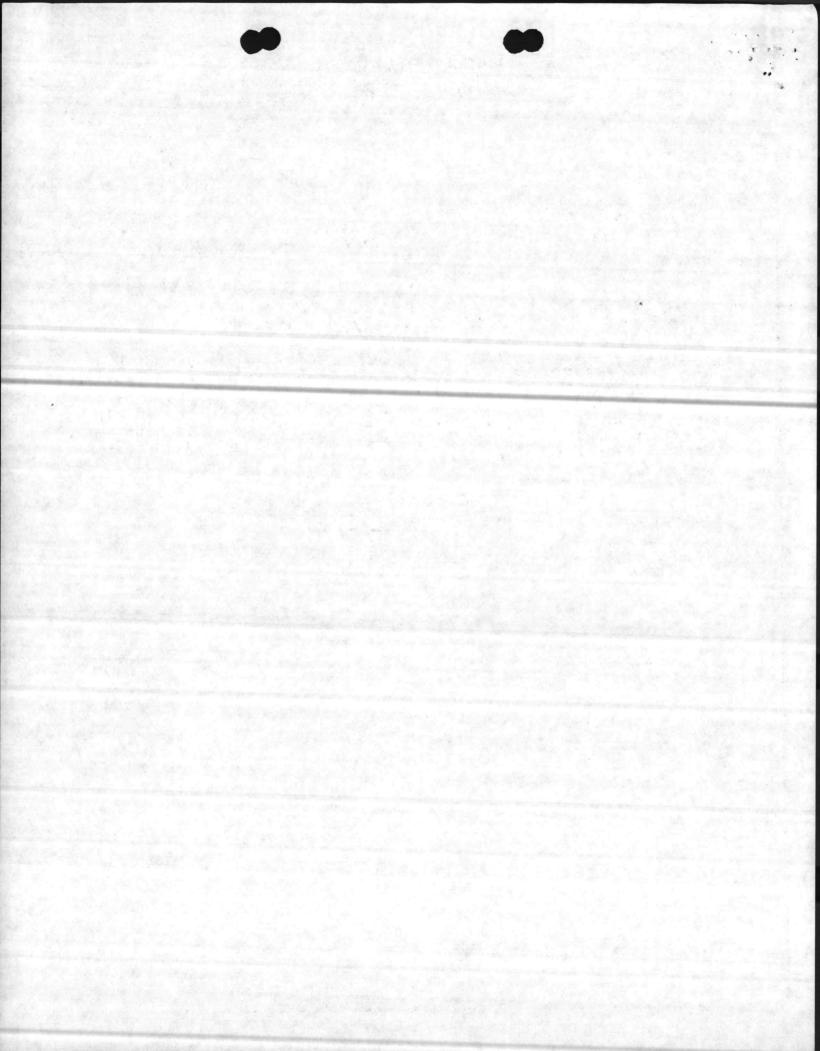
Firing of the M-85 .50 Caliber Machine Gun from Onslow Subj:

Beach into the BT-3 Impact Area

(a) CO, 2dAs1tAmphBn 1tr 3/CFN/ksh over 1500 dtd 11 Apr 79 Ref:

(1) Reference (a) Encl:

1. It is requested that reference (a) be reviewed with regard to existing environmental regulations and comments/recommendations/ concurrences be forwarded to this office not later than 31 August 1979.





#### UNITED STATES MARINE CORPS 20 MARINE DIVISION, FLEET MARINE FORCE CAMP LEJEUNE, NORTH CAROLINA 28542

3/GSN/jnp 1500 13 Apr 1979

From: Commanding General

Commanding General, Marine Corps Base, Camp Lejeune, To:

North Carolina 28542 (Attn: AC/S Training) J. R. FRIDELL AUG 14 1975

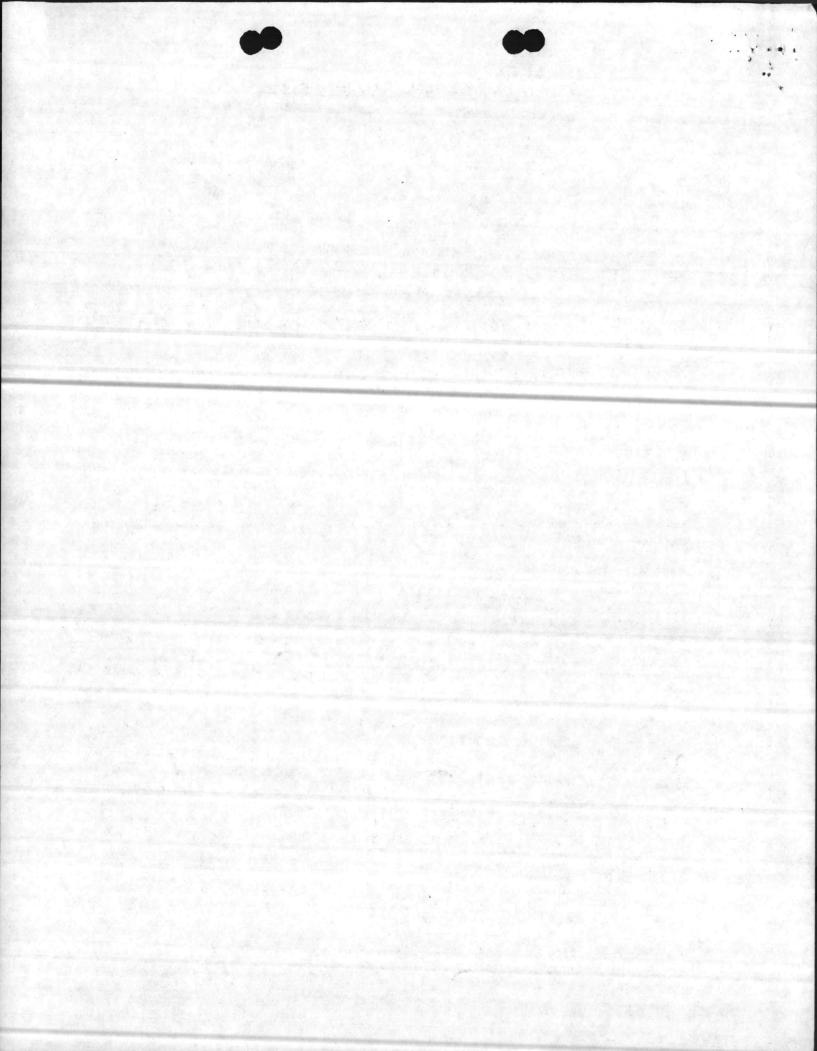
Request for Authorization to Fire into the BT-3 Impact Subj:

Area

Encl: CO, Aslt Phib Bn ltr 3/CFN/ksh 1500 dtd 11 Apr 79 (1)

1. Enclosure (1) contains a request for modification of the firing restrictions in the BT-3 impact area. The recommendations and opinions of enclosure (1) are strongly endorsed by this command. Although the modification outlined in enclosure (1) may not be feasible, I feel that some modification is necessary. Assault Amphibian Battalion is available to test any alteration approved on a trial basis.

By direction



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

3/CFN/ksh 1500

11 APR 1979

From: Commanding Officer

To: Commanding General, 2d Marine Division, Fleet Marine Force

(Attn: G-3 Training)

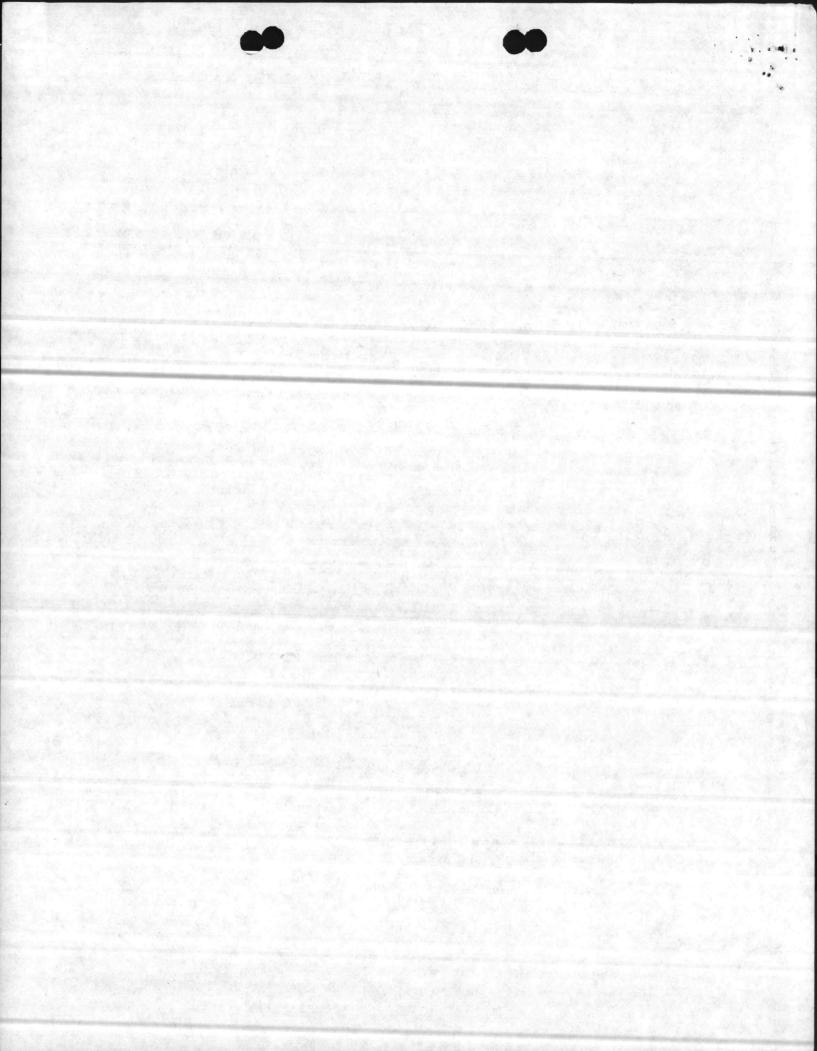
Subj: Firing of the M-85 .50 Caliber Machine Gun from Onslow Beach into the BT3 Impact Area

Ref: (a) .BO P11102.1H

(b) Combat Training Chart, Approaches to New River

Encl: (1) Overlay

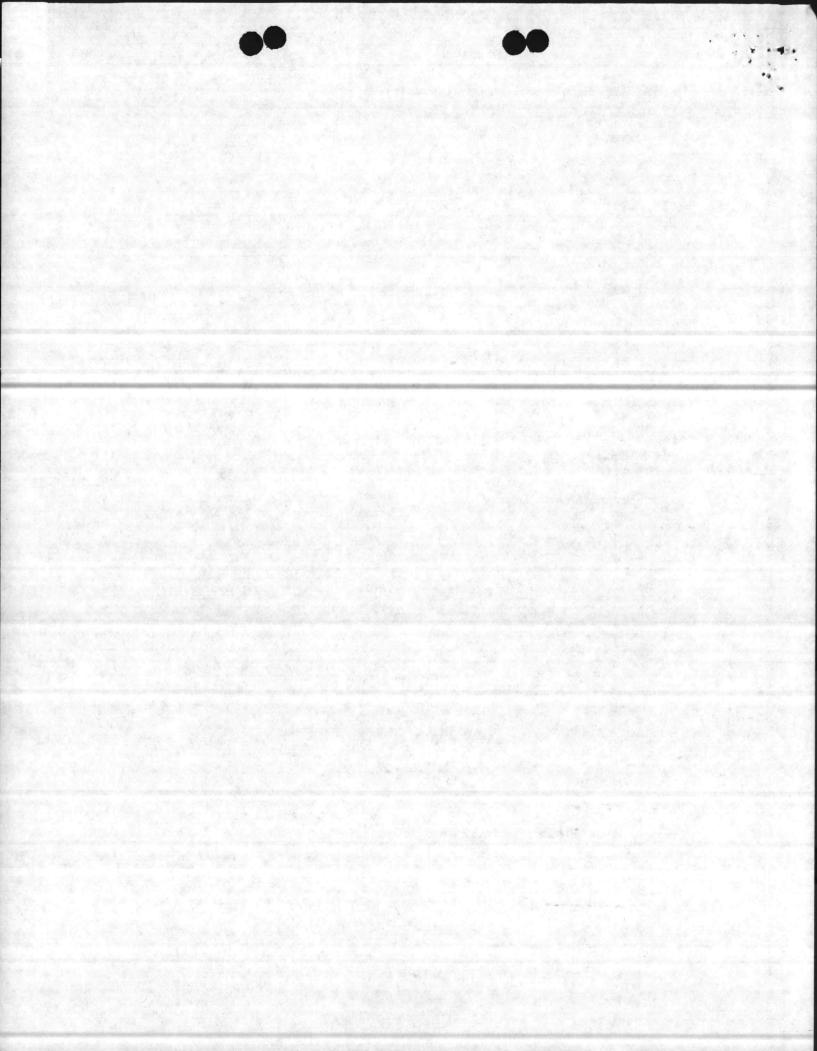
- 1. In accordance with reference (a), units of the Second Assault Amphibian Battalion have been conducting all familiarization and proficiency firing of the .50 Caliber and M6OD vehicle machine guns at the G-5 and G-7 Ranges aboard Camp Lejeune. When firing from each of these ranges, into the BT3 Impact Area, the primary knowlinterference to firing is the waterborne traffic on the Intra-coastal Waterway.
- 2. Year round, large numbers of both commercial and private craft utilize the Intra-coastal Waterway, passing directly through the N-l impact area, and the line of fire of units utilizing the Golf Ranges. During the warmer months the boat traffic increases as the civilian recreational boaters take to the water. When the G-5 or G-7 Ranges are in use, range guards must be positioned in the North Tower and Bear Creek Tower as well as in Guard Boats positioned along the waterway to control access into the impact area.
- 3. During the conduct of a shoot, the guard boats can only stop boat traffic along the waterway for short periods of time before the range must go cold to allow traffic to pass. On many occassions, boats ignore the warning signs and guard boats and sail right on through, into the line of fire, thus necessitating an immediate cease fire. These lengthy delays and potentially dangerous situations continue to plague our units, and prove to be a constant source of frustration and are responsible for a considerable waste of valuable training time.
- 4. As a solution to the problem it is suggested that a portion of North Onslow Beach, in the immediate vicinity of Onslow North Tower, be authorized for the seaward firing of .50 caliber and 7.62mm machine guns into the BT3 impact area (see enclosure (1)).
- 5. Floating target platforms could be locally fabricated by our organization from 55 gallon drums. Prior to commencement of firing the targets would be towed into the BT3 impact area and anchored in position by amphi-



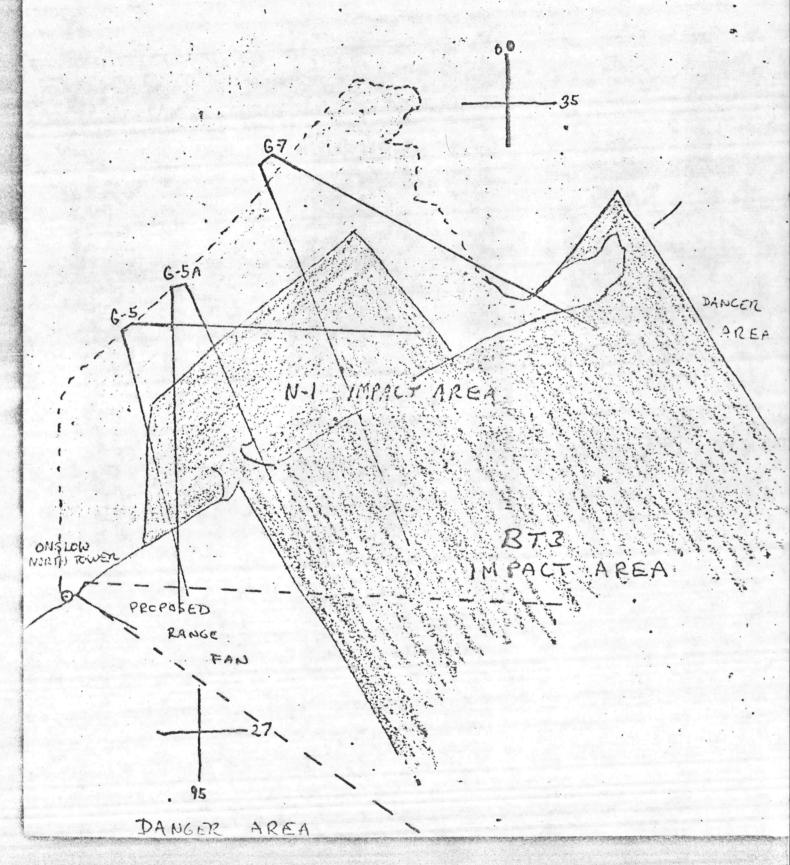
bian tractor crews. At the conclusion of the shoot, the target platforms could be recovered for future use.

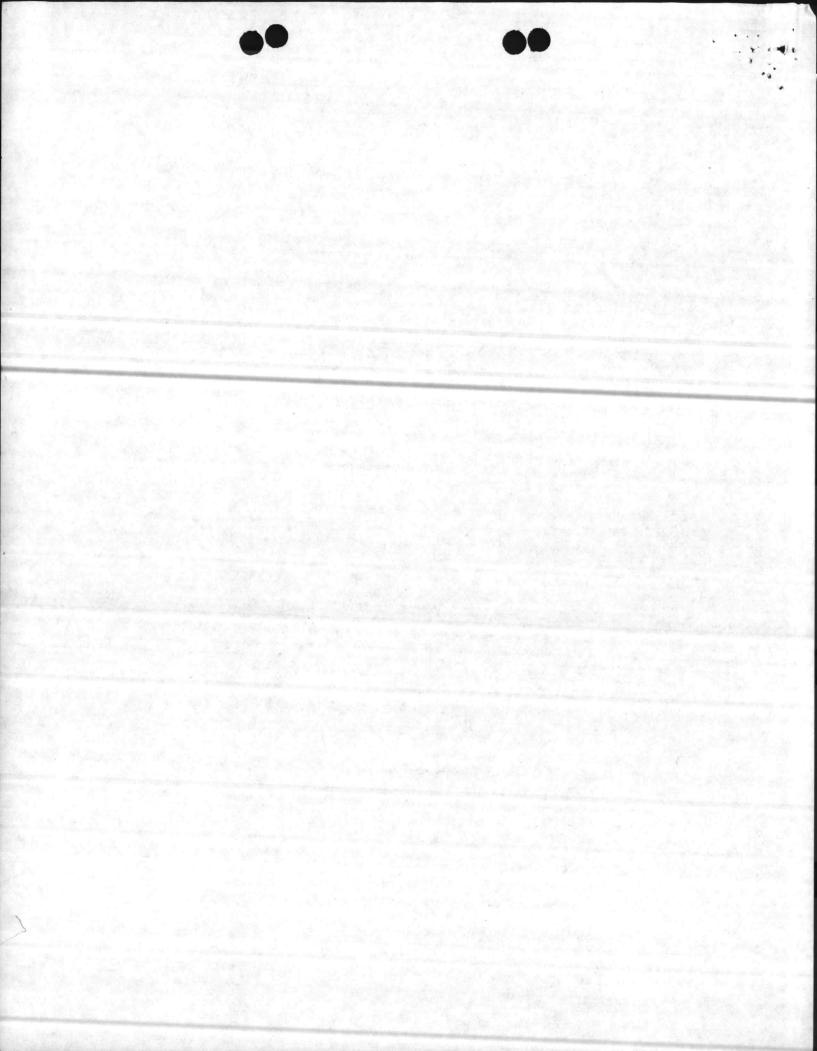
- 5. From a safety standpoint, this authorization would not endanger or interupt passing waterborne traffic on the intra-coastal waterway and would preclude the necessity of utilizing guard boats to control boating during a shoot from the beach. The seaward approaches to Brown's inlet and the entire BT3 impact area would be in complete view of the unit on the beach. With added observers in the Onslow North and Bear Creek Towers, all possible seaward and inland approaches, as well as the impact area and surrounding danger areas would be under constant observation.
- 6. Assault amphibian units may gain access to the proposed range site via three routes; (a) the unimproved road which runs to the North Tower; (b) along Onslow Beach to the Range site; (c) when the recreational beaches are in use, the amphibian tractors could splash South of Risley Pier and conduct a water march North, to the range site, thus avoiding the congested beach areas.
- 7. According to the existing range fans (reference (b)) a firing unit set up near the base of the Onslow North Tower would not interfere with other units conducting shoots from the G-5, G-5A or the G-7 Ranges, thus permitting a greater utilization of existing ranges. Not only would these individuals be out of the line of fire, but the dunes would mask them in the event that a unit inadvertently fired outside the safety fan.
- 8. In order to maintain crew proficiency and train entry level students of the FST LVTP-7 School, maximum use must be made of all available training time on the heavy machine gun ranges. We feel that by authorizing the establishment of a North Tower Range, a greater number of Marines would receive much more hands on time with the weapons due to the perceived lessening of interuptions of fire that this range would offer. It is obvious, that other organizations would benefit as well with the increased availability of heavy machine gun ranges aboard Camp Lejeune.

F. M. SLOVIK



CAMP LETEUNE SPECIAL MAP: COMDAT TRAINING CHART APPROACHES TO NEW RIVER SCALE 1:50,000





OFFICE OF THE STAFF JUDGE ADVOCATE
Marine Corps Base
Camp Lejeune, North Carolina 28542

SJA/DJC/jms 5800 7 Aug 1980

From: Staff Judge Advocate

To: Commanding General (Attn: Assistant Chief of Staff, Training)

Subj: Legal opinion concerning the 2d Marine Division request to establish a Machine Gun Firing Range from an area in the vicinity of Onslow North Tower, with a generally east-southeast direction of fire, to impact within the BT-3 Impact Area

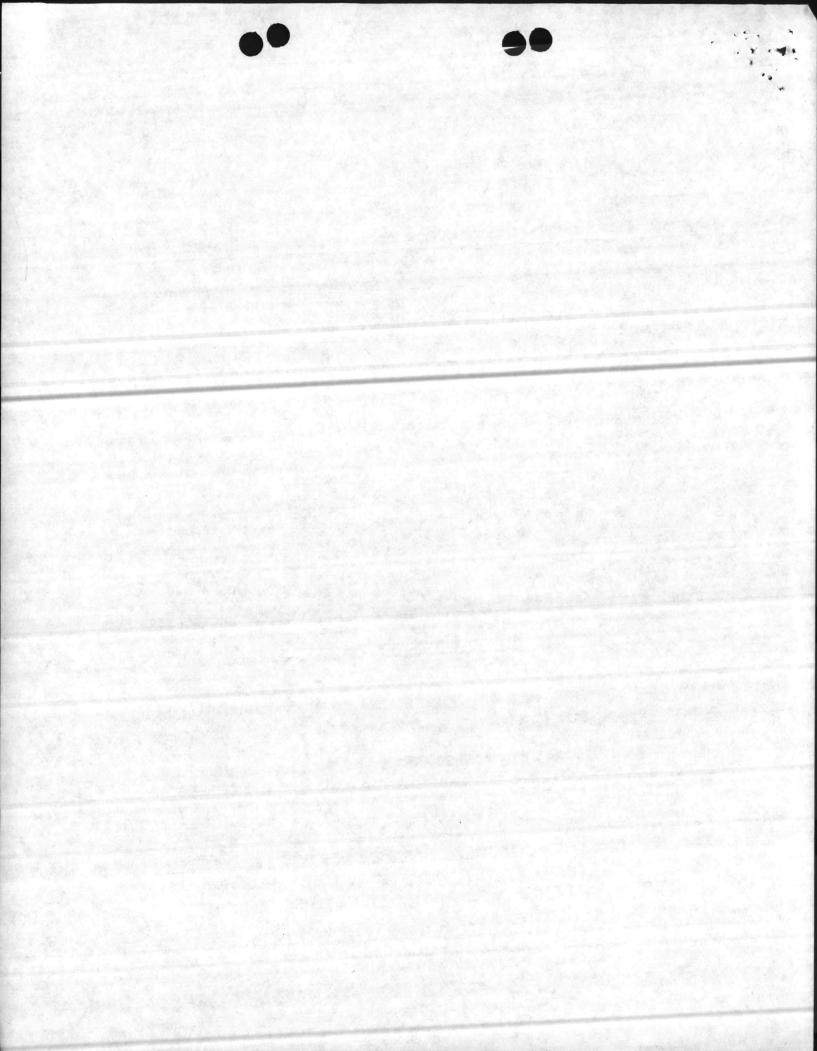
Ref: (a) BTrngFac 1tr TFAC/GGG/vew 1500 of 5Aug80 w/encl

(b) BO P11102.1J

(c) Vol 33, Code of Federal Regulations §204.56 (Revised as of 1Jul79; initially published at 26 Federal Register 9673, 130ct61)

(d) Camp Lejeune Special Map 1:50,000; 5th Edition, 25Sep76 (Combat Training Areas, Approaches to New River, N. C.)

- 1. Reference (a) contained the subject request, and enclosed the extensive 2d Marine Division justification to support the proposed firing location. The initial Division effort to establish the range described was in April 1979, and their request should be considered as having been submitted pursuant to paragraph 206.7a of reference (b), that is, a request to conduct live fire exercises in an area not so designated. Since the time of their initial request, the Division has prepared and submitted an environmental impact assessment as required by this Command. That requirement having now been satisfied, there but remain the questions of the authority for, and propriety of, utilizing the described area as a firing range. Concerning the question of authority, while it is noted that reference (a) indicates that U. S. Coast Guard officials at Swansboro, N. C., have expressed the opinion that the proposed firing "[is] not authorized," it is nevertheless my opinion that the Commanding General has the federal authority to grant the Division's request, subject to applicable regulations. See paragraphs 104.3a and b, reference (b), and paragraph (f) of reference (c). The question of propriety involves matters not entirely legal in nature, however, some comments are ventured below.
- 2. With further reference to my legal opinion, offered above, the New River, N. C., and vicinity, Marine Corps firing ranges are described, complete with map coordinates and regulations as to use, in reference (c). One of the firing ranges described is a sector called the "Atlantic Ocean east of New River Inlet" (paragraph (a), reference (c)). The boundary on all sides of this firing range sector, as described in the regulation, appear on reference (d) as the "Danger Area," and is marked on reference (d) with a line composed of red dashes. The proposed Division Machine Gun Firing Range is within this firing sector, therefore, firing is authorized subject to the regulations. The regulations are quoted, in pertinent part, from paragraph (c), reference (c), as follows:
  - (1) Sailing vessels and any watercraft having a speed of less than 5 knots shall keep clear of any closed sector at all times

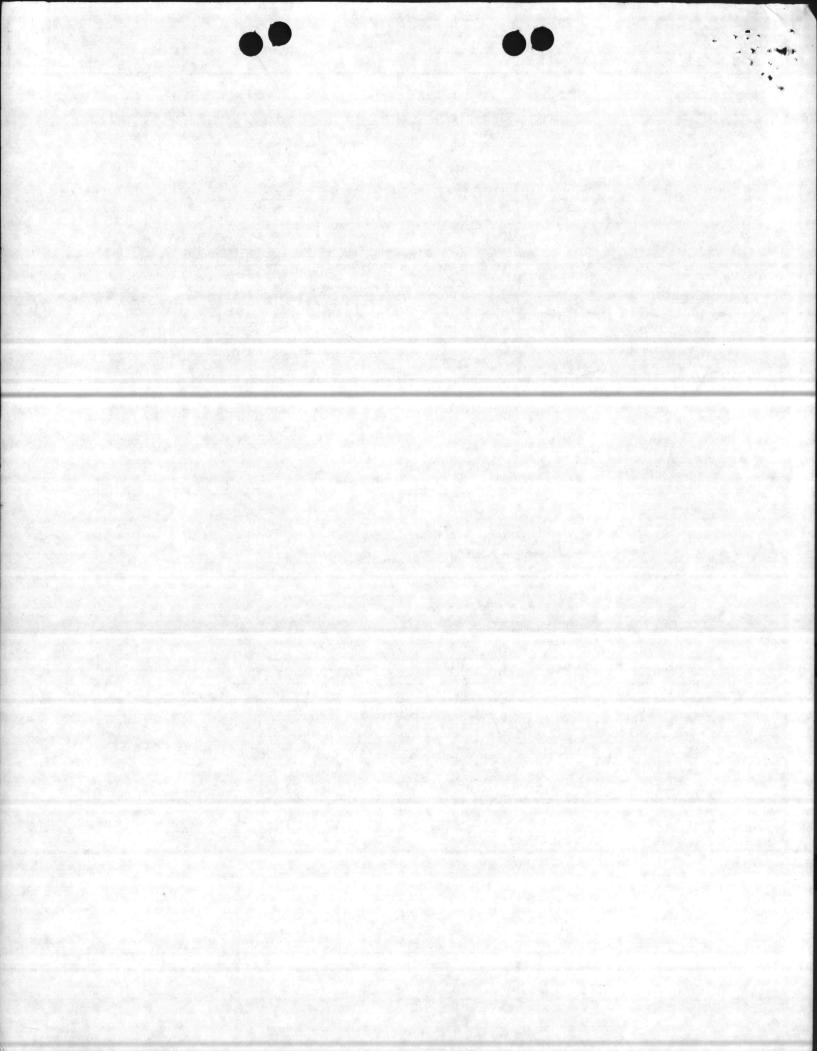


after notice of firing therein has been given. Vessels propelled by mechanical power at a speed greater than 5 knots may enter the sectors without restriction except when the firing signals are being displayed. When these signals are displayed, vessels shall clear the closed sectors immediately and no vessels shall enter such sector until the signals indicate that firing has ceased.

- (2) Firing will take place both day and night at irregular periods throughout the year (except certain restrictions on underwater explosions in the Atlantic Ocean sector).
- (3) Two days in advance of the day when firing...is scheduled to begin, the enforcing agency (CG, MCBCL) will warn the public of the contemplated firing, stating the sector or sectors to be closed, through the public press and the United States Coast Guard and, in the case of the Atlantic Ocean sector, the Cape Fear Pilots Association at Southport, and the Pilots Association at Moorehead (sic) City, North Carolina.
- (4) Towers at least 50 feet in height will be erected near the shore at the northeast and southwest limits of the Atlantic Ocean sector... On days when firing is to take place a red flag will be displayed on each of the towers... These flags will be displayed by 8:00 a.m., and will be removed when firing ceases for the day. Suitable range markers will be erected indicating the bearings of the north and west limits of the Atlantic Ocean sector.
- (5) During night firing, red lights will be displayed on the towers; and in the case of the Atlantic Ocean sector, search lights will be employed as barrier lights to enable safety observers to detect vessels which may attempt to enter the danger zone.

Inasmuch as the Division proposal contemplates impact in the BT-3 Impact Area (see reference (d)), those usage regulations, described in paragraph (d)(2) of reference (c), are also applicable and are quoted in pertinent part as follows:

(2) The regulations. Vessels may proceed along established waterways except during military training periods. Warning of military training periods will be given through Notices to Mariners and by displaying one hour prior to commencement a red danger streamer during daylight hours or a red light at night, from a flag pole 40 feet in height located at the U. S. Coast Guard Life Boat Station, Bogue Inlet, Swansboro, North Carolina, and from observation tower 40 feet in height located at the northern end of Onslow (Hurst) Beach. Prior to...firing operations, the area will be searched by plane. Watercraft in the area will



SJA/DJC/jms 5800

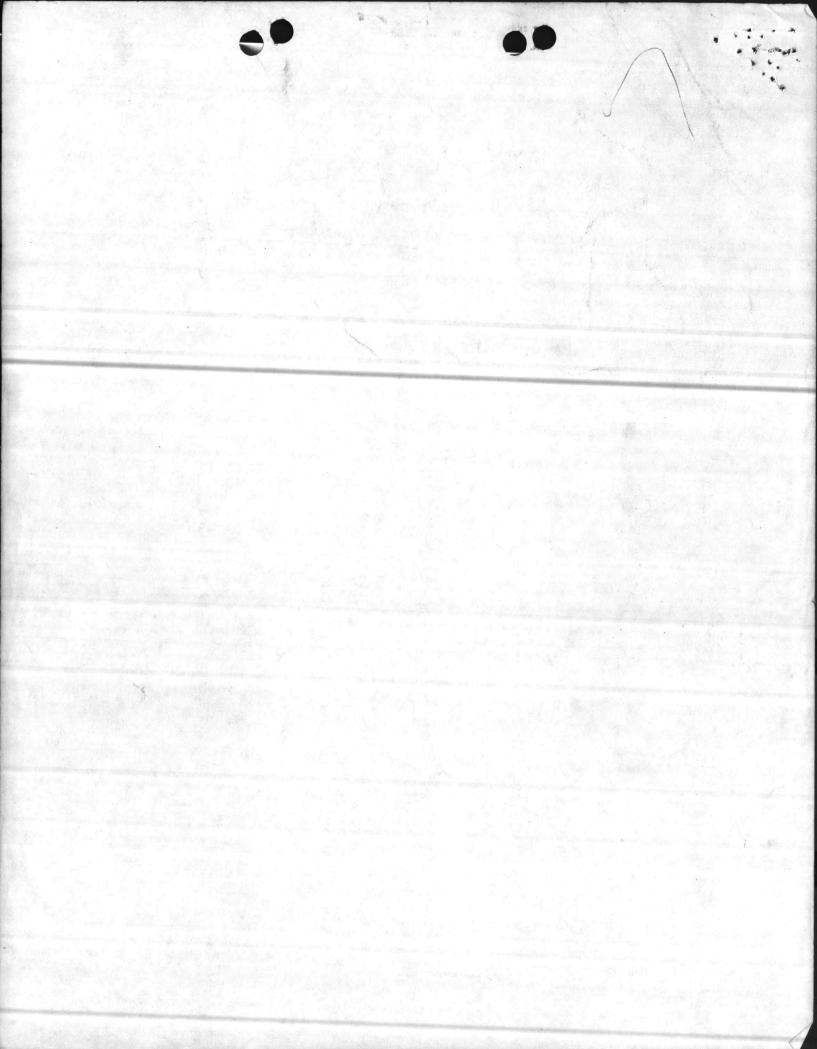
be warned by "buzzing" of the impending target practice. Upon being so warned, vessels shall leave the area as quickly as possible by the most direct route.

Beyond the foregoing, it is clear from the hearings held in 1959, which served to identify the firing ranges and establish the regulations, that the Commanding General would limit closed portions, even within a sector, to areas necessary for firing, and a safety buffer. I do not believe this would apply to the BT-3 Impact Area, however, which would be completely closed when any part is in use.

3. Having opined that the Division request is cognizable within the law, however, does not decide whether the proposed location is superior to the current ones for machine gun firing. I am inclined, reading their proposal, to believe that the proposed location is superior, if for no other reason than the lack of definitive Federal Regulations on when the Intracoastal Waterway may be closed. See paragraph (e) of reference (c). Paragraph 206.5 of reference (b) specifies long lead times for closing the Intracoastal Waterway, but the Federal Regulations simply provide that vessels may proceed without stopping except in cases of extreme emergencies. I would suggest for consideration that, if the decision is made to allow the firing as requested, the authority be temporary in nature for a test period in order to determine if the site should become a designated range aboard the Base. It may very well be that, despite the heavier traffic on the Waterway, the vessels off Onslow Beach will be more difficult to control.

Very respectfully,

DAVID J CASSADY



MAIN/JIW/th 16475

FEB 2 0 1981

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Environmental Impact Assessment for Soviet Defensive Fighting Position;

comments concerning

Ref: (a) AC/S FAC memo of 16 Dec 1980

1. As per reference (a), the subject assessment has been reviewed and is returned as requested. Based on information provided and on-the-site visit by Natural Resources and Environmental Affairs Division personnel on 19 Feb 1981, it appears no significant environmental impact will occur.

2. It is recommended the Environmental Impact Review Board process the assessment.

F. H. MOUNT

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FEB 2 0 1981

All Page Services

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Location map

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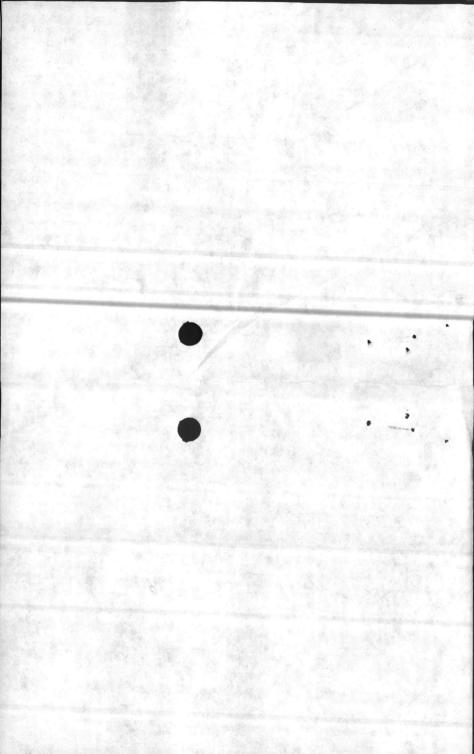
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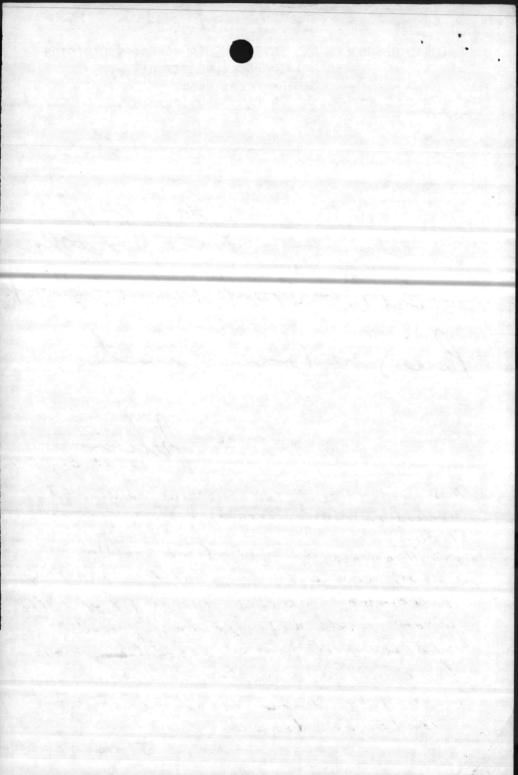
. In garagraph 3. (6) will not should have been crossed out, ie. Here will be a significant impart to vegetion, etc. need to have more information presented for reviewing assistant.



# NATURAL RESOURCES AND ENVIOUMENTAL AFFAIRS DIVISION Base Maintenance Department Marine Corps Base Camp Lejeune, North Carolina 28542

From: Director
To: Da Soviet Defined Fighting Partie Leview & Comments Julia-80 This really doesn't tell anything about what is invalved in construction of subject defensive Position. 2. will ditches be made (enclosure 2) b. If so, how wide how deep how will they be reinforced. would ditches fill of with water? would drainage be neguired? what are soils? what regetation would be removed etc. etc. about what c. Need to know more is to be done

15 en



## TRAINING FACILITIES BRANCH Marine Corps Base Camp Lejeune, North Carolina 28542

TFAC/GGG/ves 11000 11 December 1980

From: Training Facilities Officer

To: Assistant Chief of Staff, Facilities Via: Assistant Chief of Staff, Training

Subj: Environmental Impact Assessment for Proposed Soviet Defensive

Fighting Position

Encl: (1) Environmental Impact Assessment for Soviet Defensive

Fighting Position

(2) Sketch of Proposed Position

1. Currently, the 2d Marine Regiment is preparing a new Mechanized/Counter Mechanized Block training package. As part of the syllabus, the requirement for orientation to a typical threat defensive position exists. The proposed location for the defensive position is located at grid coordinate 906323. The position (Enclosure (2)) can be built by the 2d Combat Engineer Battalion and will be reinforced with sandbags to reduce environmental degradation.

2. The purpose, of this study, is to enhance the training opportunities for the 2d Marine Division. Therefore, enclosure (1) is submitted for appropriate action.

RWICK

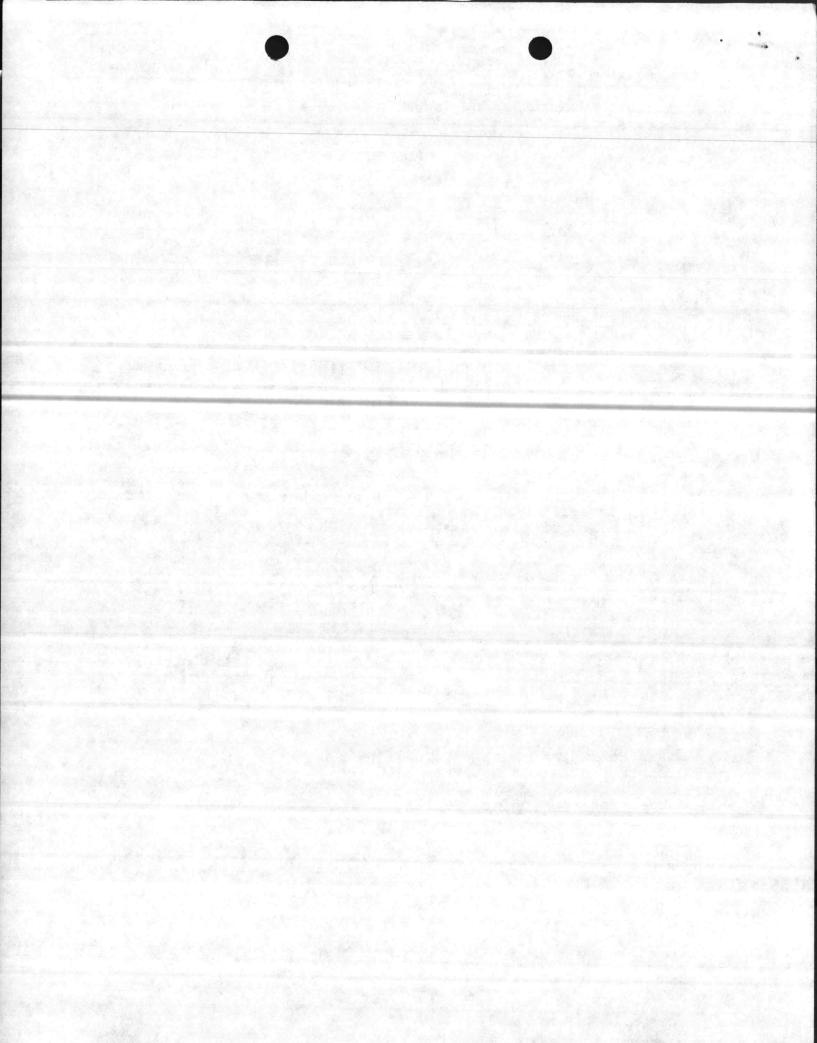
TRNG:DBG:cs 11000 16 Dec 1980

#### FIRST ENDORSEMENT

From: Assistant Chief of Staff, Training
To: Assistant Chief of Staff, Facilities

Forwarded for appropriate action.

D. B. GARNER By Direction



# DEPARTMENT OF THE NAVY UNITED STATES MARINE CORPS

### ENVIRONMENT IMPACT ASSESSMENT

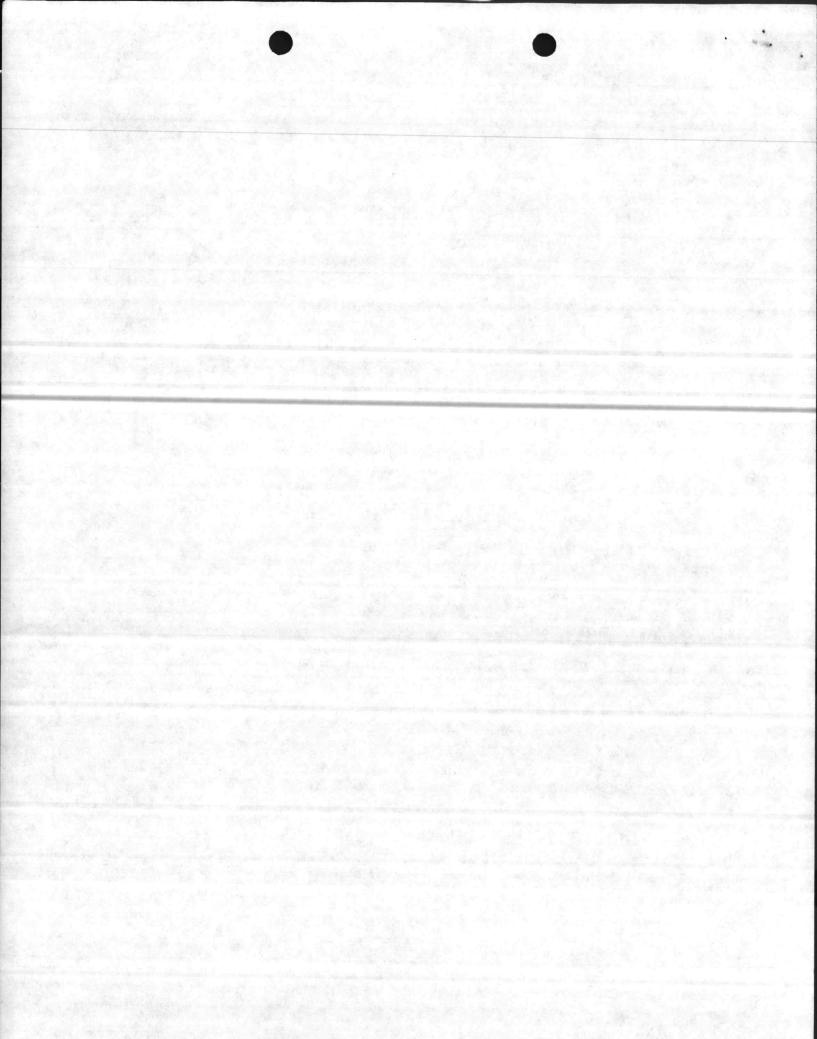
SOVIET DEFENSIVE FIGHTING POSITION (Project Title)

Marine Corps Base, Camp Lejeune, North Carolina (Military Installation)

9 DECEMBER 1981 (Date)

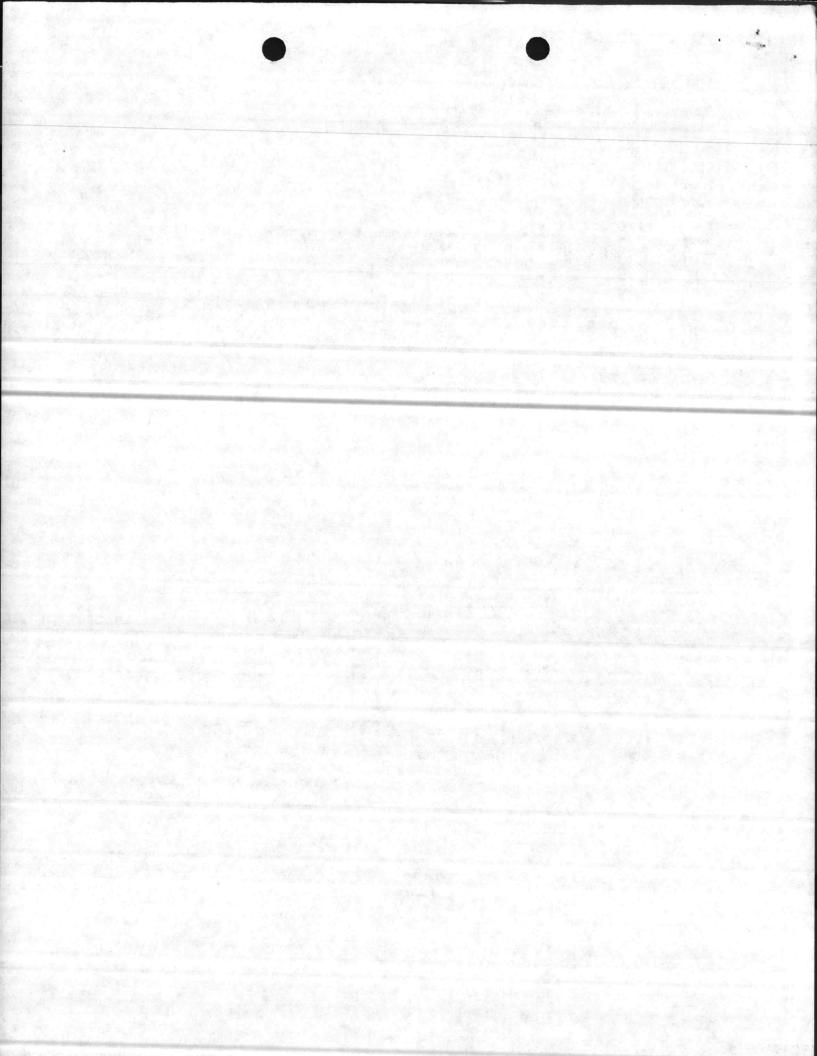
Prepared by:

CAPT. WILBURN E MEADOR JR Title s-3, 2D MARINES



Submitting DoD Comment: Department of the Have
Installation: Marine Corps Base, Camp Lejeune, N. C. 28542
Project Title: SOVIET DEFENSIVE FIGHTING POSITION
Date of Submission: 9 December 1981
1. Introduction
a. Project Description Construction of a Soviet Devensive Fighting Position which will involve the digging of a substantial trench system, gun positions, tank positions, and a command post.
b. Location: 906323
2. Relationship of Proposed Action to Land Use Plans, Policies and Controls for the Affected Area:
Conforms No Plans Conflicts With For Area With
a. Land Use Plans
b. Clear Air Control

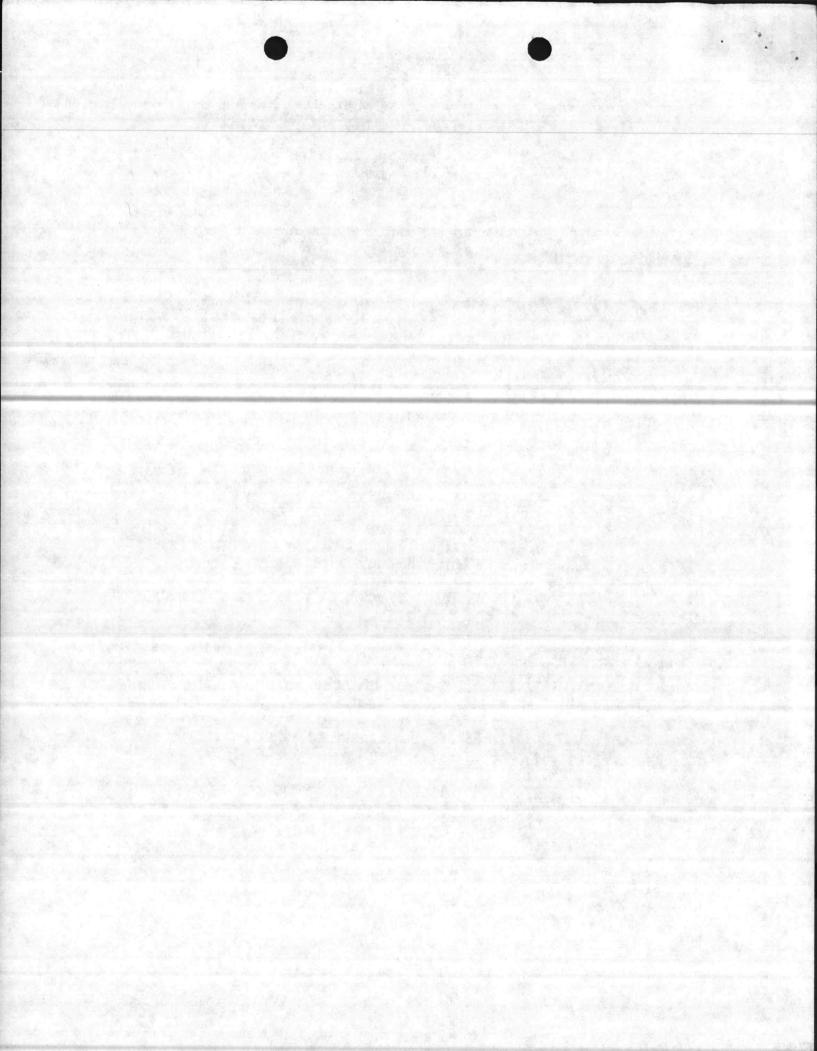
Federal Water Pollution Control Act



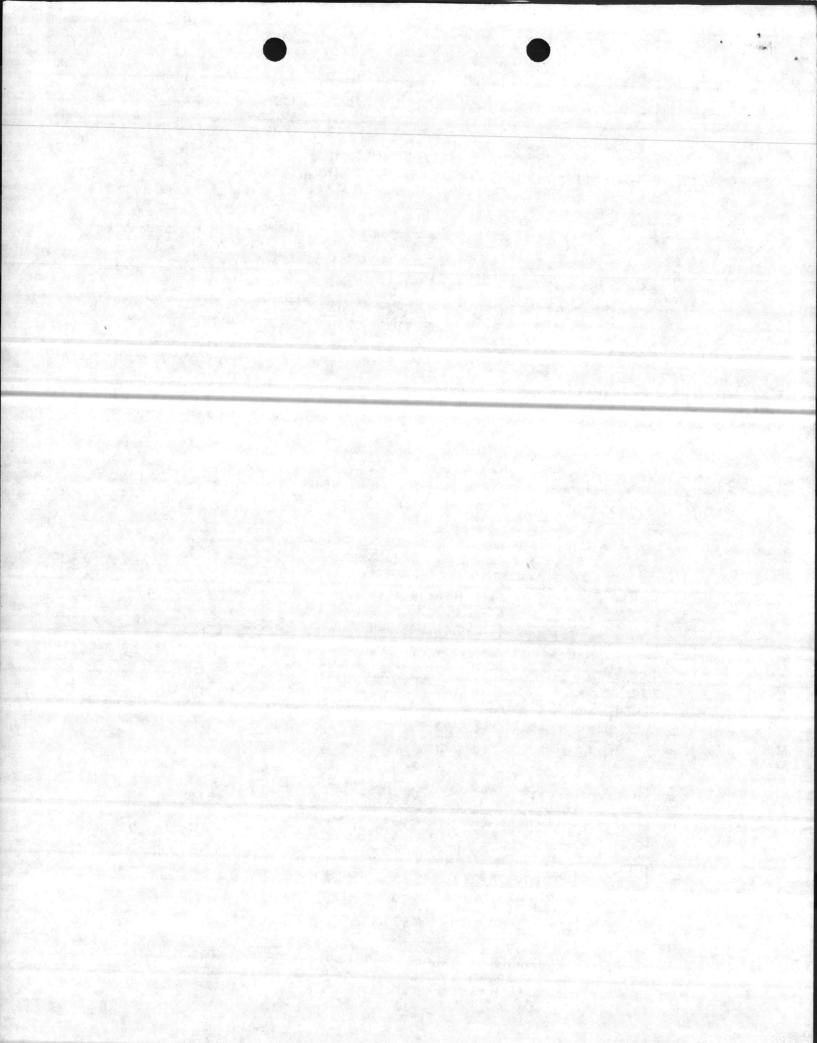
### 3. The probable Pact of the Proposed Action or he Environment:

- a. Assessment of thepositive and negative effects of the proposed faction as it affects both the national and/or the international environment.

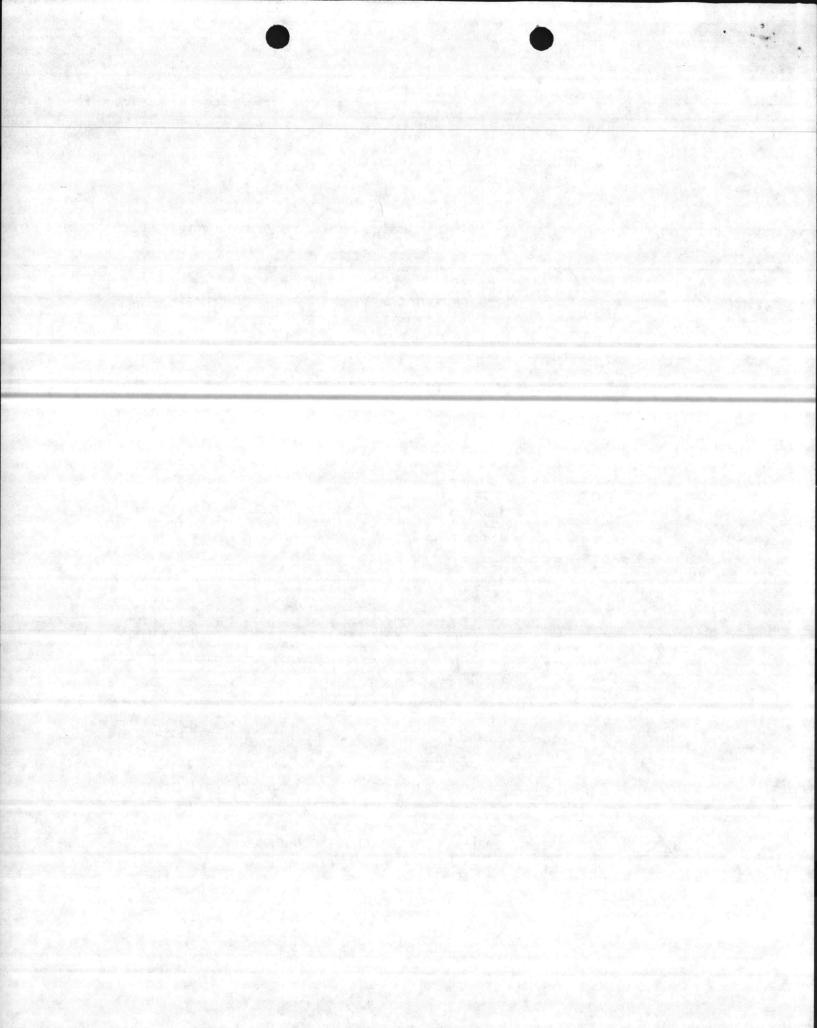
  The potentially significant affect of this action is that it:
- or hazardous substances or senificant amounts of other pollutants.
  - (2) /will not couse the creation of excessive noise, when considering the proximity and likely effects of the noise on humans or wildlife?
  - (3) /will not introduce toxic or hazardous substances or significant amounts of chemiels, organic substances or solid wastes into bodies of water, on land or otherwise effect water or soil quality?
  - (4) [will not significantly alter the rate of sediment deposit or temperature of a body of eter?
  - (5) [will not require the use of non-renewable energy sources, e.g., fossil fuels.etc., in apparently excessive or disproportionate amounts?
  - (6) [will notresult in a significant destruction of vegetation, wild or marine life?
  - (7) [7]/will notaffect, beneficially or adversely, other forms of life or the ecosystems of which they are a part?
  - (8) [will notresult in contamination or deterioration of food or food sources?
    - (9) /will notaffect population density and congestion?
    - (10) Will/ cause a limited change in landscape.
  - (11) [/will notaffect, beneficially or adversely, neighborhood character (aesthetic qualities) and zoning?
    - (12) [will notalter area hydrologic properties?



b. on the fo	The proposed action will hav	ve a potential	ly signific	
	ITEM	Favorable	Adverse	No Effect
	Traffic		Ц	
	Community Facilities	Ц.	님	X
	Schools			× ,
	Waste Treatment Facilities	. 브.	님	
	Utilities			
	Land Management		Ц	
	Solid Waste Disposal		Ц	X X
	Area Appearance	L	Ш	M
	Other (See Attachment		/	
	professional and the second	tion		
4. Alte	ernatives to the Proposed Ac			
L.	There is no feasible a	in to tak	o no action	. The effects
	Only feasible alternation of this alternative and	e discussed.		
	Various alternatives a	and their effe	cts are dis	scussed in
	Probable Adverse Environme	ntal Efforts !	Which Canno	t Be Avoided
5. Any Should	Probable Adverse Environmented The Proposal Be Implemented	illat Litecos.		
· · · · · · · · · · · · · · · · · · ·	No adverse effects or	the environm	ent are ant	icipated.
	Probable adverse effe	ects are discu	ssed in Att	tachment
L	D. buson Local She	ort-Term Uses	of the Env	ironment and the
6. Re	Nationship Between Local Shi mance and Enhancement of Lo	m-Term Produc	tivity	
	No change in short-t			



	No chan in the productivity.	maintenarce and/or ement of long-term
	Adverse effects of construction perilong-lasting adve	n the environment will occur only during the od and these will/will not create permanent or rse effects.
	The proposed acti	on will enhance the short-term use of resources by
		Abating existing or potential pollution.
		. Enhancing the area appearance.
		Reducing utility requirements
		Improvements in operational efficiency.
		Improvements in habitability of existing facilities.
		Other: Reduction in Maint. requirements
	Long-term product	civity will be enhanced by:
	· 🗆	Abating existing or potential pollution. (Dust)
		Reducing utility requirements.
		Improvement in operational efficiency.
		Other: As above
7. Irr	reversible and Irre	trievable Commitments of Resources Which Would Be Action Should It Be Implemented
M		irreversible or irretrievable commitment of
×	resources.	of identified archeological sites or sites having ic or architectural interests.
X	No effect on kn	own endangered species of wildlife.
		그는 그 그리는 사는 그는 이 경영을 내려 가는 이 전에 가장 하는 것이 되었다. 이 사람들은 사람들은 그는 그리는 사람들은 그리는 그 사람들은 그래요? 그리는 것이 되었다. 그리는 사람들은 그리는 것이 되었다. 그리는 것이 없는 것이 되었다. 그리는 것이 되었다면 되었다. 그리는 것이 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면

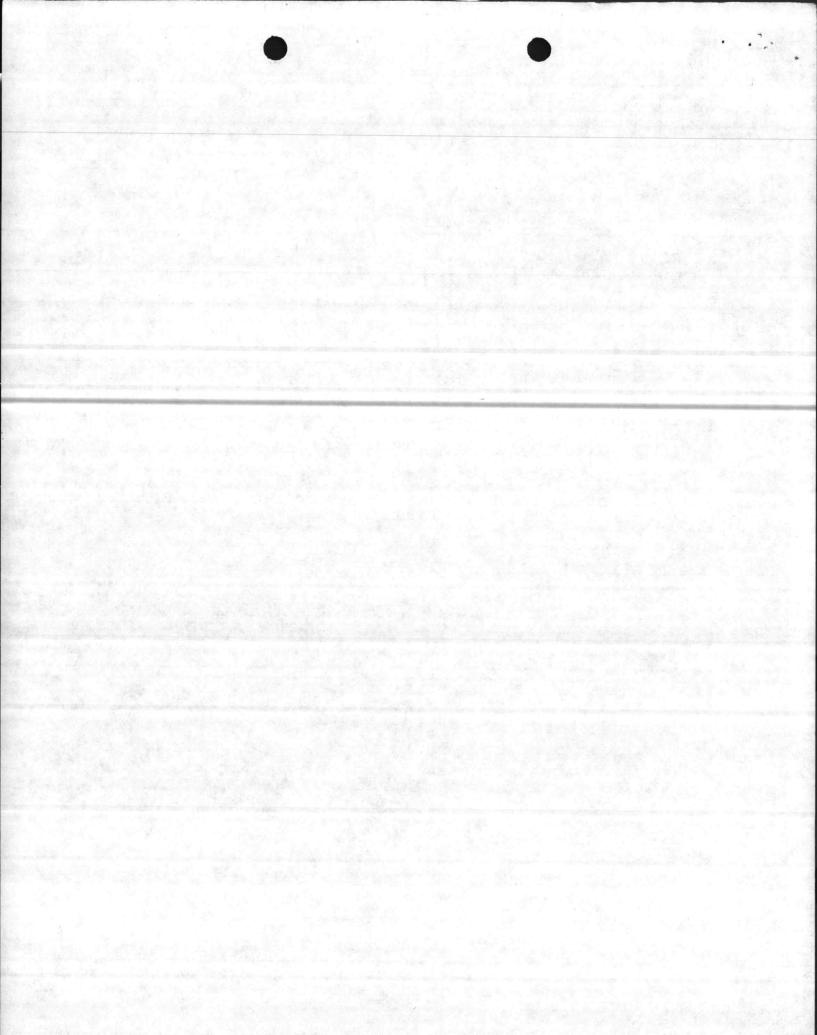


Potentially significant irreversible or irretrievable commitments or resources are discussed in Attachment  Other:  Other:  This course of action as compared to adverse environmental effects of alternatives (Section 4) are discussed in Attachment  b. Cost benefit analysis of proposed action is Attachment  Summary  It is concluded that the proposed action will have no significant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.  Based on this assessment, it is concluded that an Environmental in the proposed action of the invariance of the proposed action of the proposed acti	$\boxtimes$	No significant change in la	nd use.
8. Considerations That Offset the Adverse Environmental Effects  a. This course of action as compared to adverse environmental effects of alternatives (Section 4) are discussed in Attachment  b. Cost benefit analysis of proposed action is Attachment  9. Summary  It is concluded that the proposed action will have no significant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.		mitments or resources are d	eversible or irretrievable com- iscussed in Attachment
a. This course of action as compared to adverse environmental effects of alternatives (Section 4) are discussed in Attachment  b. Cost benefit analysis of proposed action is Attachment  9. Summary  It is concluded that the proposed action will have no significant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.	•		
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b. Cost benefit analysis of proposed action is Attachment  9. Summary  It is concluded that the proposed action will have no significant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.	8. Con	siderations That Offset the Ad	verse Environmental Effects
9. Summary  It is concluded that the proposed action will have no significant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.  Paced on this assessment it is concluded that an Environmental	a. effects	This course of action as com of alternatives (Section 4) a	pared to adverse environmental re discussed in Attachment
It is concluded that the proposed action will have no significant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.	b.	Cost benefit analysis of pro	posed action is Attachment
nificant adverse effects on the environment.  There has not been, nor is there currently, any known controversy concerning the proposed action.  Passed on this assessment it is concluded that an Environmental	9. Sumn	nary	
versy concerning the proposed action.  Pased on this assessment it is concluded that an Environmental		It is concluded that the pr nificant adverse effects on	oposed decion nervi
Based on this assessment, it is concluded that an Environmental		There has not been, nor is versy concerning the propos	there currently, any known contro- ed action.
Impact Statement must be prepared prior to implementation of the proposed action.		Impact Statement must be pr	t is concluded that an Environmental repared prior to implementation of the

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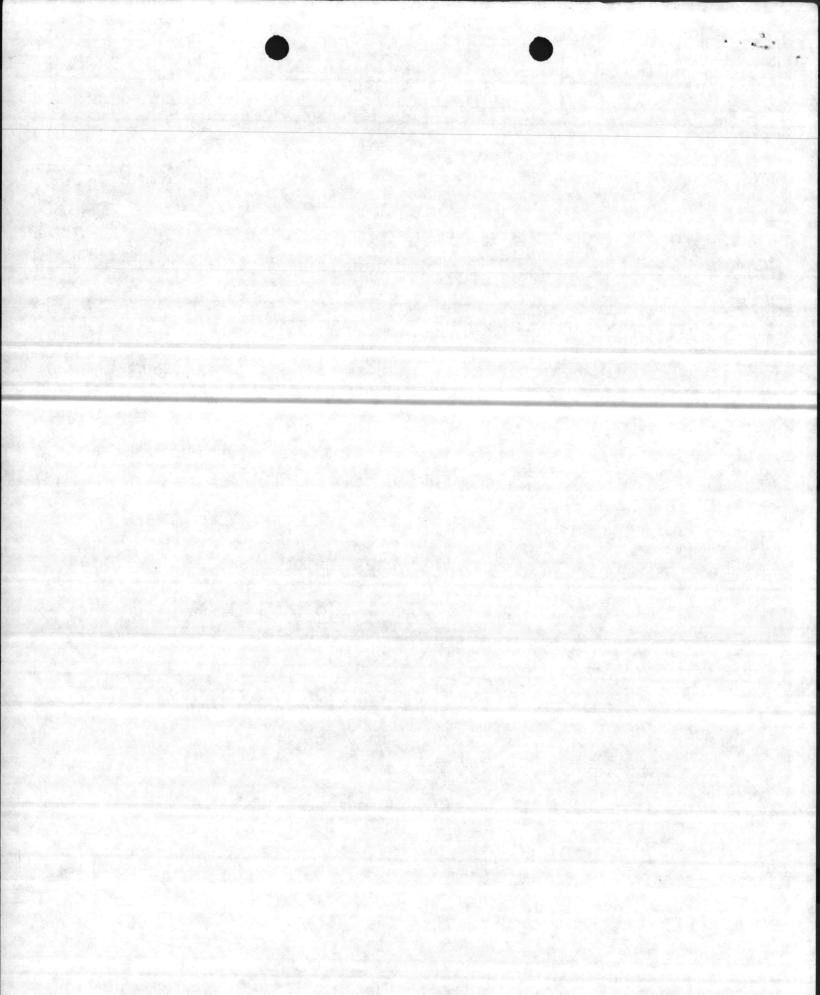
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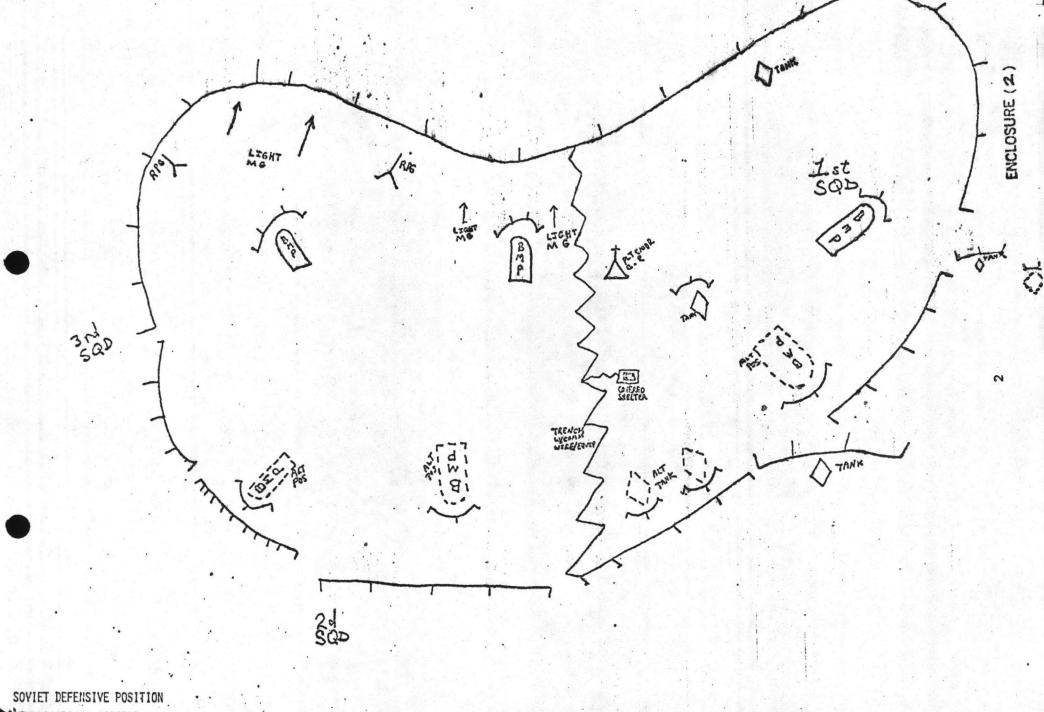
to the figure can be found to be a first of the first of



# ATTACHMENT #1

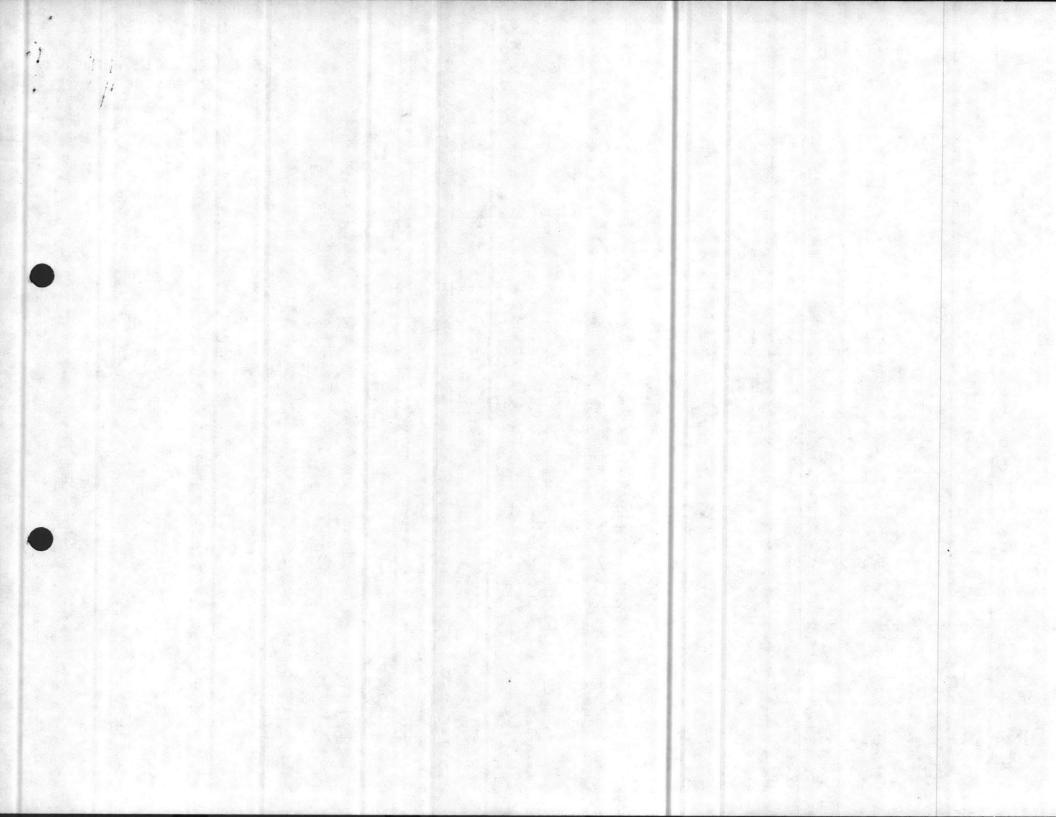
The alternative not constructing this ne position is to continue using the current position which is totally unsatisfactory. The present position will require constant maintenance due to the sandy area in which it is located. Movement to the new position will reduce many fold the maintenance requirements now experienced.





W LOCATION 916323

TERIALS - 2" x 4" PLANKS, SAND BAGS, ENG. STAKES



Training Active
Folder

MAIN/DDS/mac 16475 APR 1 7 1981

Base Maintenance Officer

Assistant Chief of Staff, Facilities To:

Subj: Environmental Impact Assessment, Explosive Ordinance Disposal Range G-4A; comments on

(a) BO 11000.1

Encl: (1) AC/S FAC memo of 2 April 1981

- 1. The subject Environmental Impact Assessment (ELA) has been reviewed for consistency with reference (a) and related environmental considerations, as requested by enclosure (1). The subject EIA satisfies the requirements of reference (a). If the subject project is carried out as described in the EIA, no significant environmental impact or controversy is anticipated.
- 2. If additional information is desired, please contact Mr. Danny Sharpe, Natural Resources and Environmental Affairs Division, extension 2083.

F. H. MOUNT

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Training Facilities Officer

Assistant Chief of Staff, Facilities

Environmental Impact Assessment, Explosive Ordnance Disposal Range G-4A

- Encl: (1) EIA, Subject Area dtd 18 March 1981
  - 1. The present EOD site, Range G-4A has been deemed to be unsatisfactory for disposal of ordnance. In order to bring the range up to minimum requirements, an area 500 feet in diameter must be cleared of all vegetation and the ground smoothed down. Representatives of the Environmental Branch have walked the area with engineer and EOD representatives. The enclosed EIA is submitted as a result of that meeting which indicated no probable adverse environmental conditions would be encountered.
  - 2. I request that this EIA be presented to the Environmental Impact Board as soon as practicable. Upon receiving favorable consideration from the Board, the project will be initiated as a class project by the Engineer School.

G. G. GARWICK

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# DEPARTMENT OF THE NAVY

### UNITED STATES MARINE CORPS

# ENVIRONMENTAL IMPACT ASSESSMENT

EXPLOSIVE ORDNANCE DISPOSAL RANGE G-4A

(Project Title)

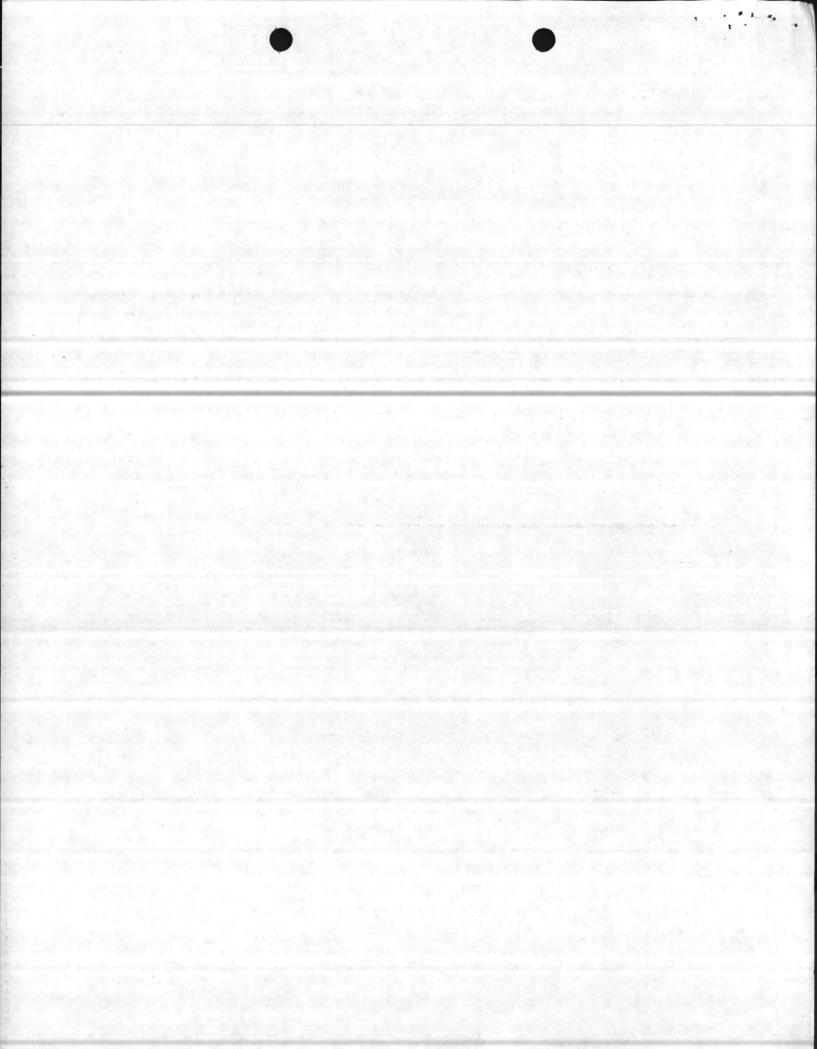
MARINE CORPS BASE, CAMP LEJEUNE, WORTH CAROLINA 28542
(Military Installation)

18 MARCH 1981 · (Date)

Prepared by:

. EOD OFFICER, MCB

(Title)



### ENVIRORMENTAL IMPACT AS SSMENT

Submitting DoD Component: Department of the Havy Installation: Marine Corps Base, Camp Lejeune, N. C. 28542 Project Title: Explosive Ordnance Disposal Range G-4A

Date of Submission:

#### 1. Introduction

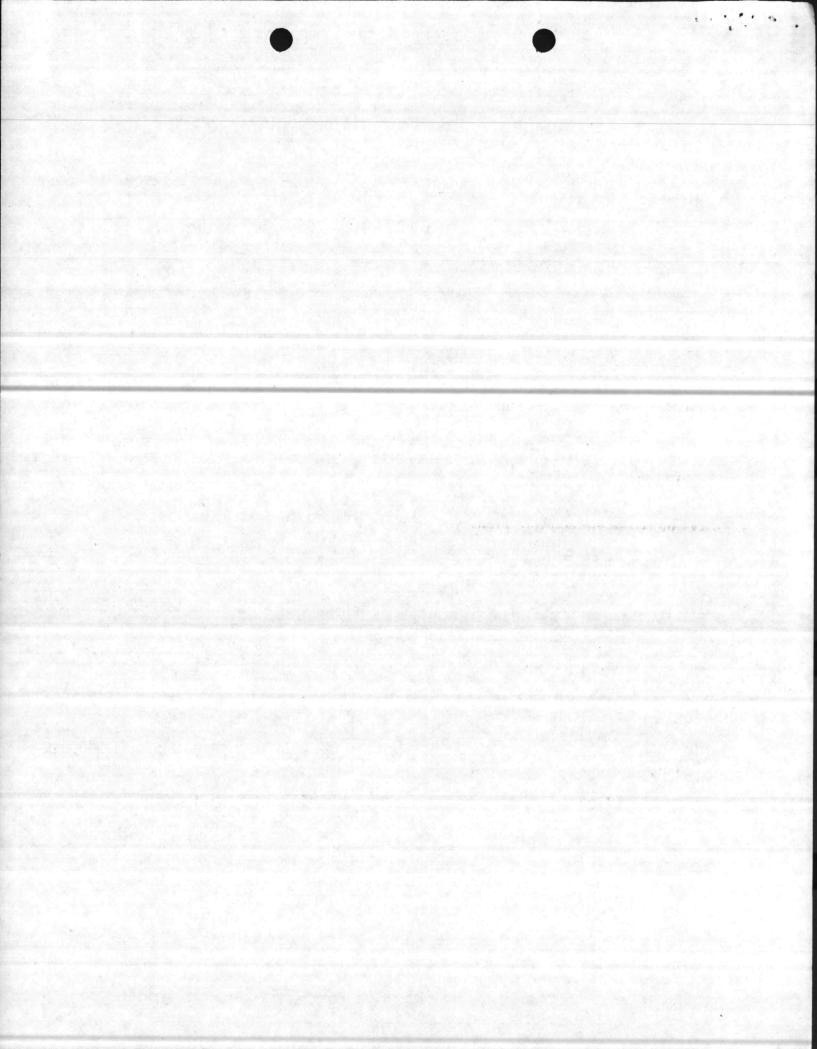
a. Project Description

The G-4A Range is assigned to the Explosive Ordnance Disposal Platoon for routine and emergency disposal of Class V(W)(A) material and impro-Vised explosive devices. Range G-4A is located within Grid Square 9333 of the Camp Lejeune Special Map and was approved and designated by NAVSEASYSCOM as a Class "B" Disposal Site in 1974. See Enclosure(1).

- b. A recent inspection by NAVSEASYSCOM revealled that it no longer met criteria established by current regulations for conduct of disposal operations. To meet requirements the following modifications must be accomplished:
- . 1. Survey to determine range perimeter and quantity-distance
- 2. Clear disposal area of trees and vegetation for a radious Arc. of 500 ft. from detonation point.
  - 3. Fill existing craters to obtain flat, level detonation site.
  - 4. Fortify existing personnel protective shelter.

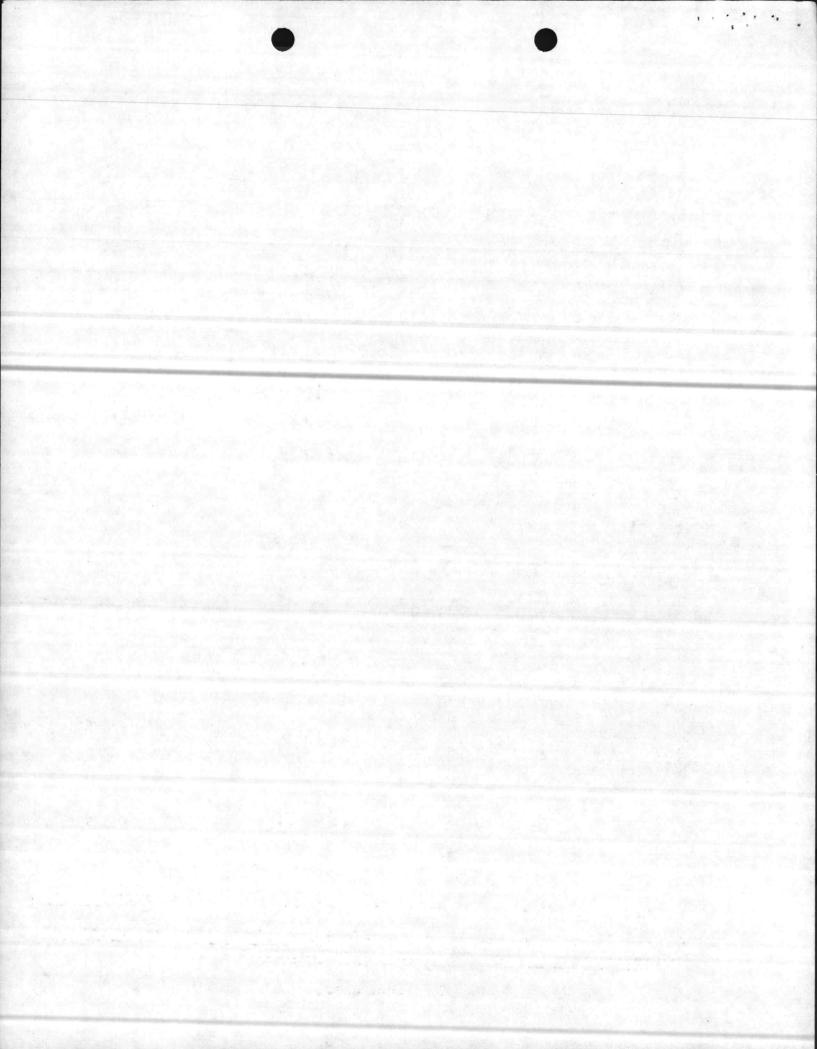
Relationship of Proposed Action to Land Use Plans, Policies and Controls for the Affected Area: Conflicts No Plans Conforms With For Area With a. Land Use Plans Clear Air Control Ь.

c. Federal Water Pollution Control Act

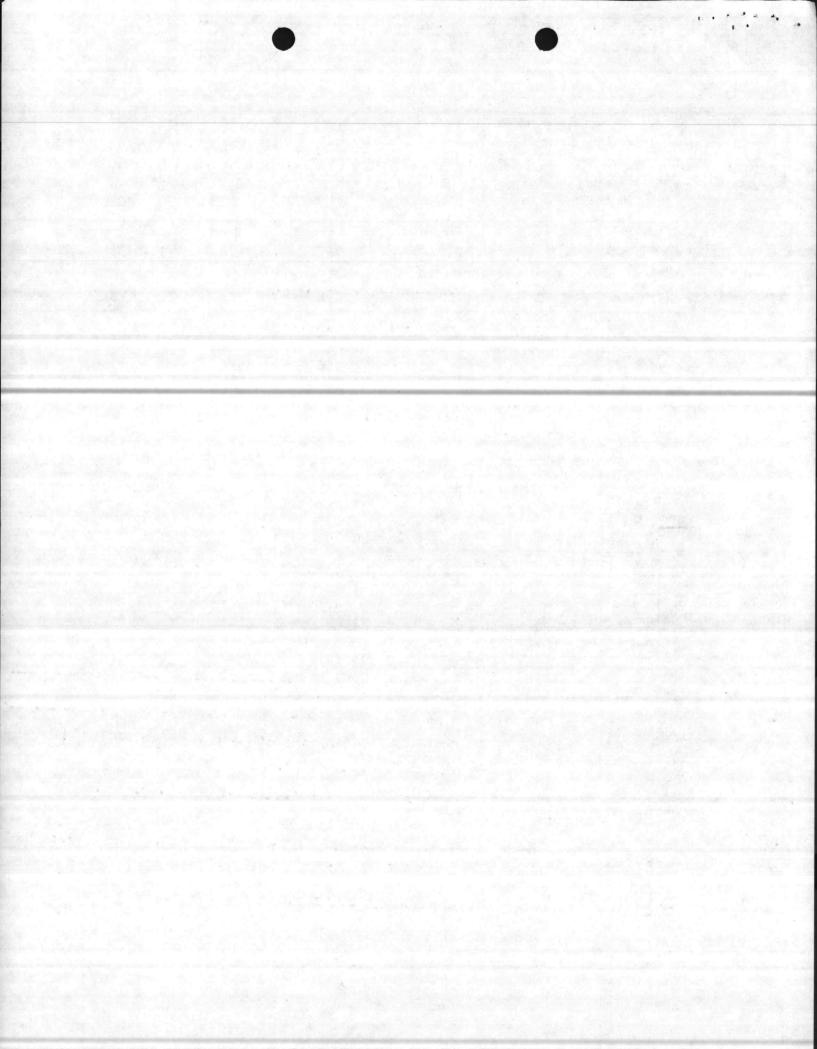


# 3. The probable Impact of the Proposed Action on the Environment:

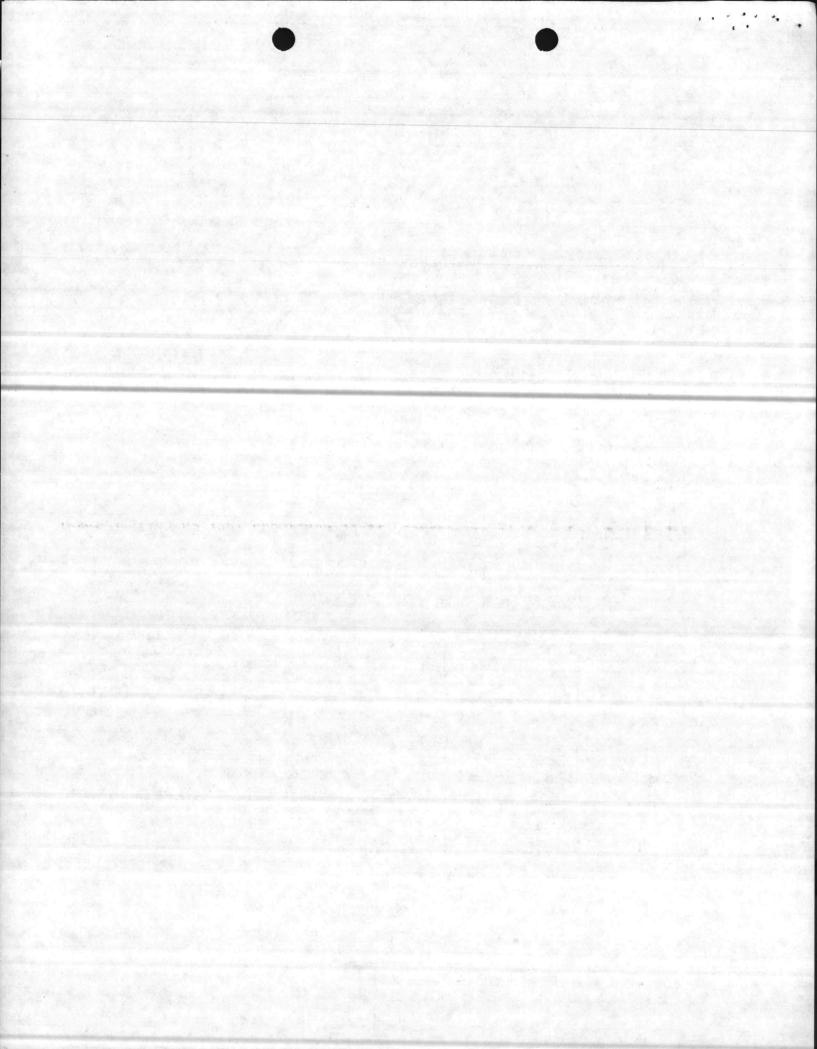
- a. Assessment of the positive and negative effects of the proposed action as it affects both the national and/or the international environment. The potentially significant effect of this action is that it:
- (1) Will/will not cause emissions into the atmosphere of toxic or hazardous substances or significant amounts of other pollutants. It will/will not significantly reduce the amount of pollution in the atmosphere?
- (2) Will/will not cause the creation of excessive noise, when considering the proximity and likely effects of the noise on humans or wildlife?
- (3) Will/will not introduce toxic or hazardous substances or significant amounts of chemicals, organic substances or solid wastes into bodies of water, on land or otherwise effect water or soil quality?
- (4) Will/will not significantly alter the rate of sediment deposit or temperature of a body of water?
- (5) Will/will not require the use of non-renewable energy sources, e.g., fossil fuels, etc., in apparently excessive or disproportionate amounts?
- (6) Hill/will not result in a significant destruction of vegetation, wild or marine life?
- (7) Will/will not affect, beneficially or adversely, other forms of life or the ecosystems of which they are a part?
- (8) Will/will not result in contamination or deterioration of food or food sources?
  - (9) Will/will not affect population density and congestion?
- (10) Will/will not cause a major change in landscape, extensive clearing, paving or excavation?
- (11) Will/will not affect, beneficially or adversely, neighborhood character (aesthetic qualities) and zoning?
  - (12) Will/will not alter area hydrologic properties?



b. The on the follow	proposed action will have	a potential	ly signifi	cant effect
. <u>1</u> TE	M .	Favorable	Adverse	No Effect
Tra	ffic			
Com	munity Facilities	Ц	Ц	
Sch	ools			X ,
Was	te Treatment Facilities			
Uti	lities	.		. 🛛
Lar	nd Management	님		<b>M</b> .
Sol	id Waste Disposal		Ц.	× 🖂 · · ·
Are	ea Appearance	· L	Ц	M .
Oth	ner (See Attachment	) ,		
4. Alternat	ives to the Proposed Acti	<u>on</u>		
	There is no feasible alt	ernative.	•	
	Only feasible alternative of this alternative are	e is to take discussed in	no action Attachmen	The effects
	Various alternatives and Attachment	their effec	ts are dis	cussed in
5. Any Prob Should The P	able Adverse Environmenta roposal Be Implemented	1 Effects Wh	ich Cannot	Be Avoided
$\nabla$		A CONTROL OF	t are ant	icipated.
	No adverse effects on the			
	'Probable adverse effects	the second second second		
6. Relation	and Enhancement or Long-	Term Product	ivi ty	
	No change in short-term	use.		



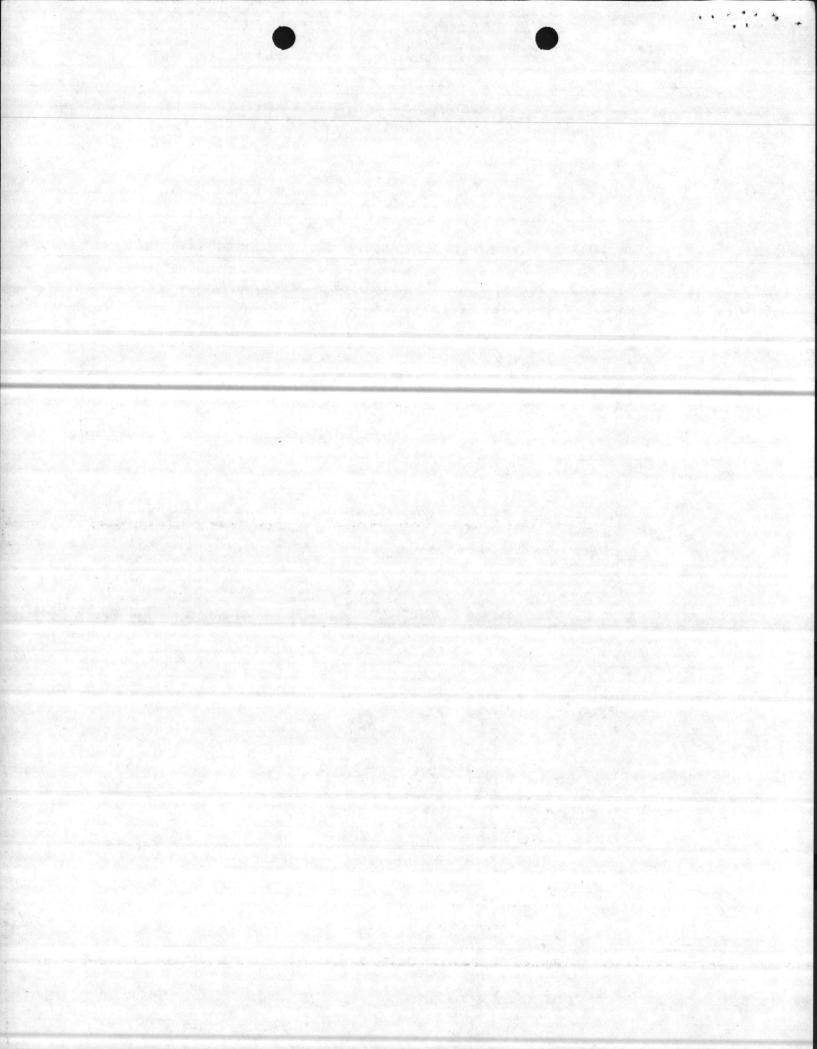
П	No change in the ma	aintenarce and/or enhancement of long-term .
	productivity	
	construction period long-lasting adver	the environment will occur only during the d and these will/will not create permanent or se effects.
	The proposed actio	n will enhance the short-term use of resources by:
		Abating existing or potential pollution.
		Enhancing the area appearance.
• 7		Reducing utility requirements
	$\boxtimes$	Improvements in operational efficiency.
		Improvements in habitability of existing facilities.
	L	Other:
	Long-term product	ivity will be enhanced by:
	·	Abating existing or potential pollution. (Dust)
		Reducing utility requirements.
		Improvement in operational efficiency.
		Other:
		trievable Commitments of Resources Which Would Be
7. Ir	reversible and Irre	Action Should it Be Implemented
. 📈	No significant	irreversible or irretrievable commitment of
	resources.	of identified archeological sites or sites having
K.V.	possible histor	ic or architectural interests.
	No effect on kn	own endangered species of wildlife.
		이 글 이 그리다는 어디에서 하다면 하다는 그리는 그리다는 점점이 되었다고 있다.

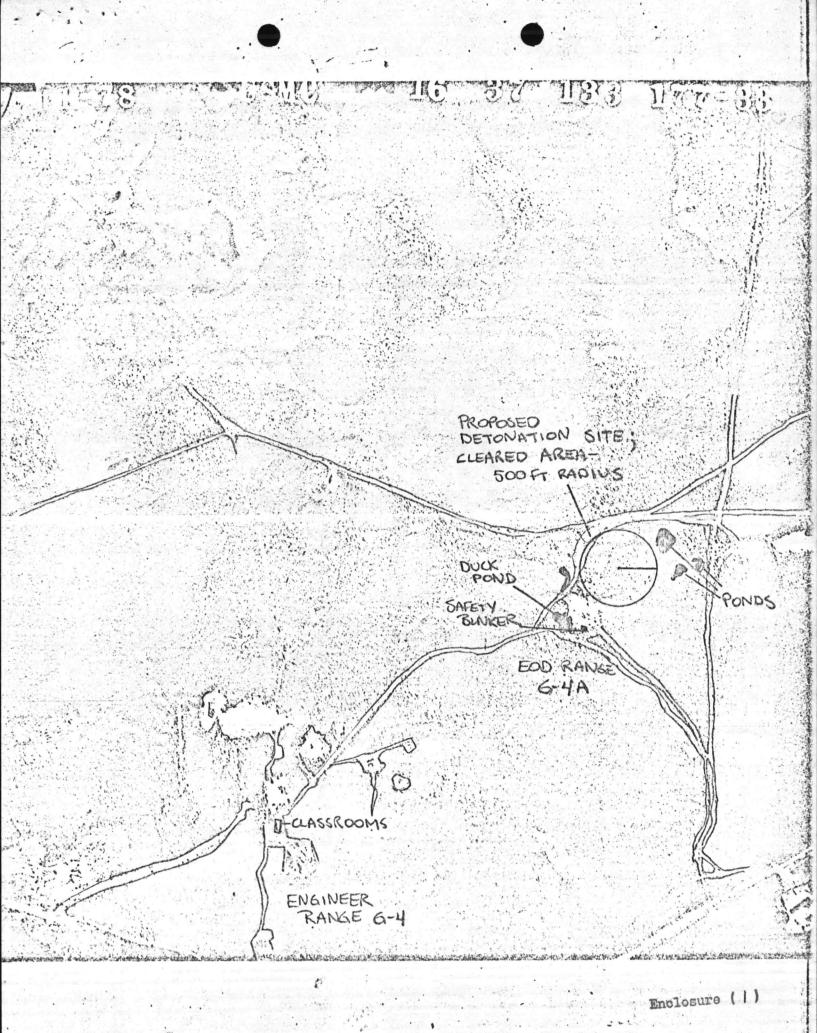


$\bowtie$	No significant change in land use.
	Potentially significant irreversible or irretrievable commitments or resources are discussed in Attachment
	Other:
Emired St.	
8. Con	siderations That Offset the Adverse Environmental Effects
	This course of action as compared to adverse environmental of alternatives (Section 4) are discussed in Attachment
b.	Cost benefit analysis of proposed action is Attachment
9. Summ	nary
	It is concluded that the proposed action will have no significant adverse effects on the environment.
	There has not been, nor is there currently, any known controversy concerning the proposed action.
	Based on this assessment, it is concluded that an Environmental Impact Statement must be prepared prior to implementation of the proposed action.

A. A. S. A. M. M. A. A. M. A. M. M. A. M. A.

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Folder= Training Active Stone BAY Training Ill Site

MAIN/DDS/th 16475 APR 1 7 1981

From: Base Maintenance Officer

Assistant Chief of Staff, Facilities

Subj: Stone Bay Head Facilities; Environmental Impact Assessment (EIA)

Ref: (a) AC/S FAC memo of 3 Mar 1981 (b) 80 11000.1

Encl: (1) Inventory and Evaluation, USDA - Soil Conservation Service, of 10 Feb 1981

(2) SJA 1tr SJA/NTR/jms of 16 Dec 1980

- 1. The following comments regarding the subject EIA are provided, as requested by reference (a).
- 2. Subject EIA transmitted by reference (a) failed to address considerations identified in enclosure (1) regarding maintaining proper separation between the pit bottom and the seasonal high water table, as required by state regulations discussed in enclosure (2). One viable alternative which was not evaluated was the construction of water tight vault privies which would be pumped out and disposed of at the Rifle Range Sewage Treatment Plant.
- 3. With the above exceptions, the subject EIA appears to satisfy the requirements of reference (b). It is recommended that approval of the project stipulate that pits be constructed in accordance with limitations specified in enclosure (1).

F. H. MOUNT

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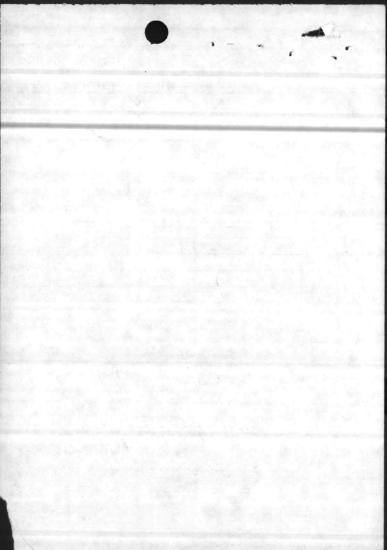
### ROUTING SLIP

DEC 1 8 1980

	ACTION	INFO	INITIAL
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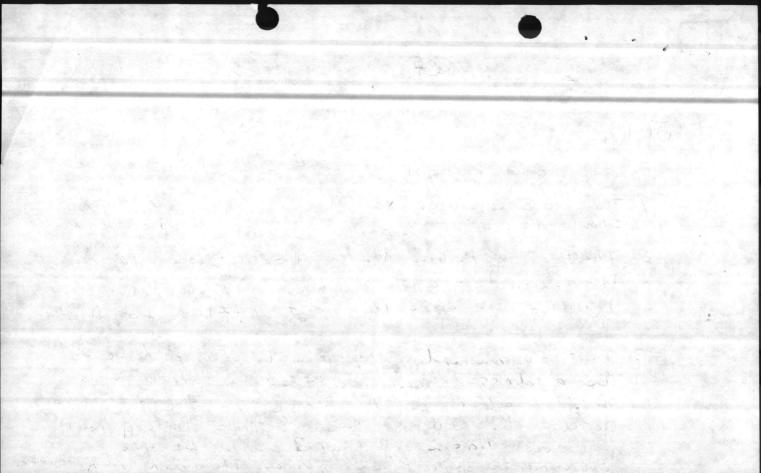
This means essentially The following.

1. That a Base order on field (Santation: Privise should be written. Septic fanks)

2. That The Public health despects would be the central theme meaning that Preventing medicine would be the best office to Draft The Order.

The Order.

3. That Environmental requirements would have to be addressed, meaning that we should work "hand in-glove" with PMU in drafting the document. I would suggest that Betsey port, Serve as liason and that I would be the Environmental Expert" and review the work in grogress.





# UNITED STATES MARINE CORPS 2D MARINE DIVISION, FLEET MARINE FORCE CAMP LEJEUNE, NORTH CAROLINA 28542

15/JSH/jd 2 1/1000 1981

From: Commanding General

To: Commanding General, Marine Corps Base, Camp Lejeune, North Carolina

28542

Subj: Stone Bay Head Facilities; Environmental Impact Assessment

#### 1. Introduction:

- a. <u>Project Description</u>. It is proposed to use the Stone Bay Troop Camp as a SARTC Training Site and Division Headquarters CPX site. These actions are addressed in a separate assessment previously forwarded. As a result of the aforementioned planned usage, head facilities will be required in the Stone Bay Troop Camp to support the training evolutions. It is expected that the maximum required support will be for approximately 160 personnel for three days on a weekly basis. The proposed design of the pit prives has been approved by 2d Medical Battlion, Preventive Medicine Personnel.
- b. Exisiting Environment at Proposed Site. The existing site is a former permanent troop camp. It is located in the immediate vicinity of the base rifle range, approximately a half mile from Stone Bay to the east. The site is generally surrounded by wooded area with wetlands displaying dendritic drainage which flows into a tidal stream within Cypress Swamp. The site elevation is about 30 feet above mean sea level. Access to the site is by existing hard-surface road.

#### 2. Relationship of Proposed Action on the Environment

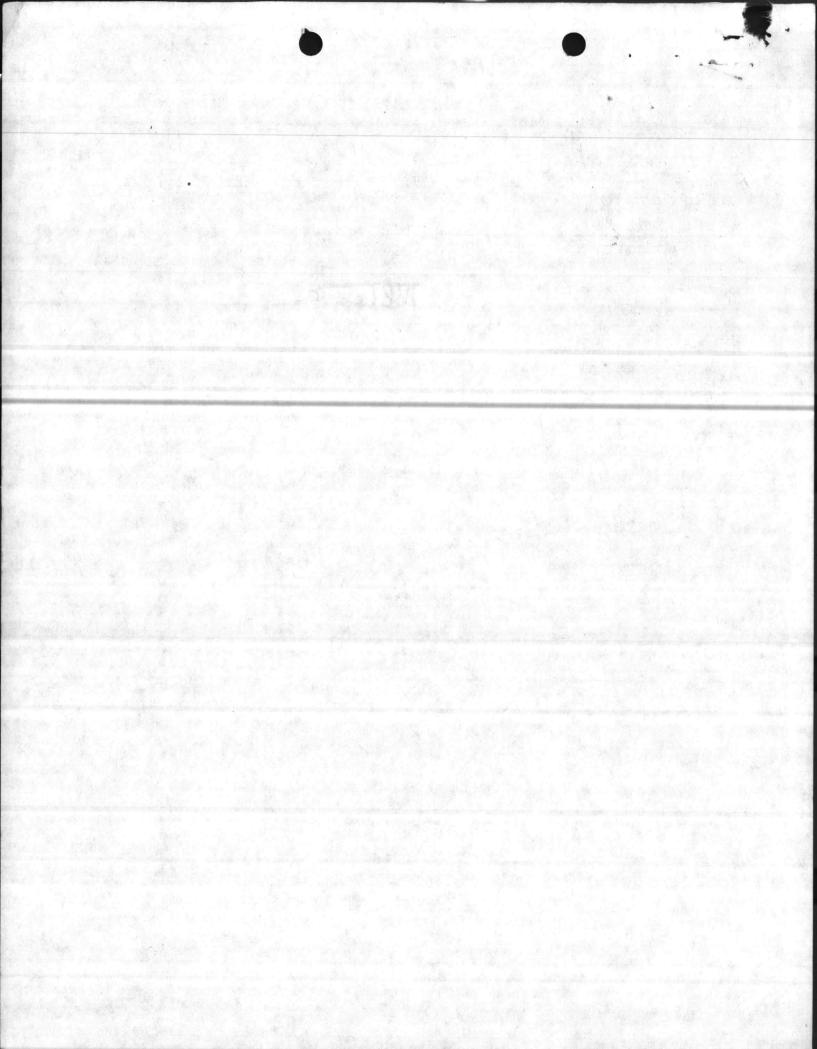
- a. Air Quality. The proposed head will have no appreciable impact on the air quality in the general area, although the immediate vicinity of the heads may produce minor odors in summer.
- b. <u>Water Quality</u>. Assuming adequate percolation capability of the site soils and given the planned training density it is not anticipated that the water quality in the Stone Bay area will be adversely affected. It is noted that Stone Bay is a tidal body and that the New River flows through it. A remote possibility exists for minor biological contamination of water. However, site monitoring by local environmental personnel should preclude this as a problem.
- c. <u>Land Quality</u>. Will not be adversely affected by installation of the heads, and may, in the long-term, benefit from fertilization.
- 4. Alernatives. Alternatives to the pit privy have been considered as listed below.
- a. Reactivation of the existing water and sewage systems at Stone Bay. This action would provide the best environmental solution, but is tantamount to a new facility construction to include water and sewage lines due to the period of time the systems have been in disuse. Cost was considered prohibitive in discussions with MCB Maintenance personnel.

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b. Utilization of portable heads was considered and noted to be environmentally acceptable. However, the estimated cost of approximately \$5,400 a year was considered prohibitive. c. The final alternative considered was individual field-expedient sanitary measures. This was rejected as being unsanitary and unhealthy, due to the number of personnel and the respective nature of the training. 5. It is not anticipated that there will be any irreversible, adverse affects to the environment as a result of the pit-privy installations. By direction Copy to: CO, 2d CbtEngrEn



EIA Sturned to Trang & Div for update by

EIA Riview Board

BASE MAINTENANCE DEPARTMENT

Marine Corps Base

Camp Lejeune, North Carolina 28542

MAIN/JIW/mp

11000

From: Base Maintenance Officer

To: Assistant Chief of Staff, Facilities

Subj: Environmental Impact Assessments (EIAs) for Establishment of Stone Bay Combat Town and Related Expansion of TLZ "Owl"; comments concerning

Ref: (a) BO 11000.1

(b) MCBul 6280 of 9 Sep 1980

(c) Endangered Species Act of 1973 as amended (PL 93-205)

(d) Coastal Zone Management Act

(e) Federal Water Pollution Control Act

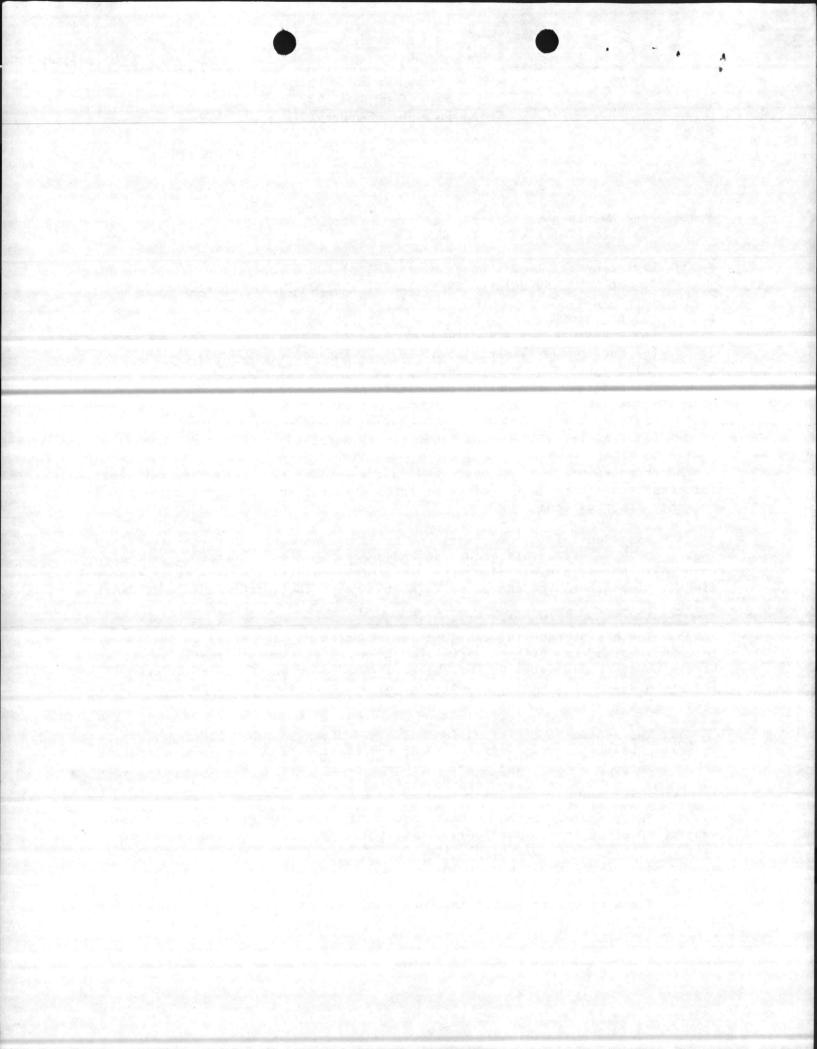
Encl: (1) TFAC ltr TFAC/GGG/ves 11000 of 7 Nov 1980

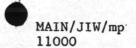
(2) TFAC ltr TFAC/GGG/cs 11000 of 10 Nov 1980

1. The proposed project, as described in the subject EIAs, has been reviewed for consistence with requirements of references (a) and (b) and the following comments are provided:

a. Based on information provided, the proposed action has potential for impact on the American alligator, an endangered species protected under reference (c). Formal consultation with U. S. Fish and Wildlife Service is required since implementation of the proposed action "may affect" the endangered American alligator.

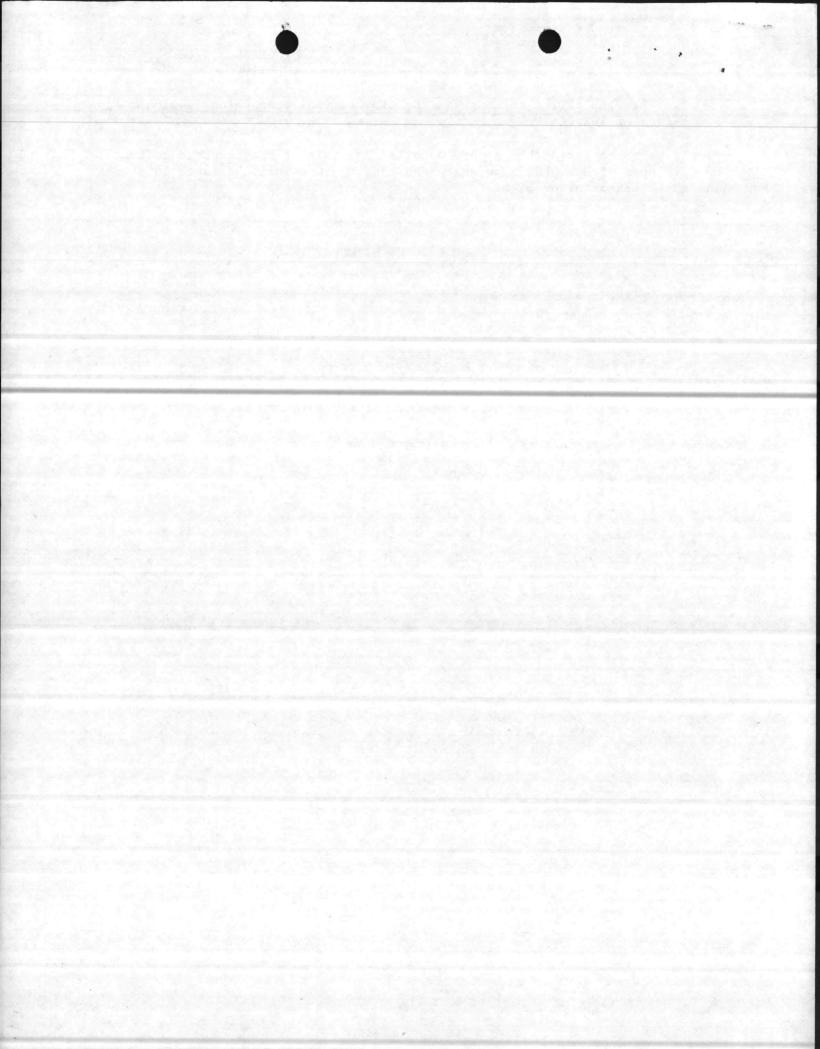
- b. The use of tactical vehicles and clearing of vegetation on soils and terrain involved has high potential for creating erosion and resulting in damage to protected wetlands (marsh) which are under State jurisdiction. The preparation of a negative declaration or a consistency statement in regard to the proposed action in compliance with reference (d) is required.
- c. The sedimentation situation addressed above and the crossing of running streams prevalent in the area involved, are similar in nature to conditions at other locations aboard base where the Corps of Engineers, Wilmington has cited the Commanding General for violations of reference (e).
- d. The proposed action as described in the enclosed EIAs appear to be subject to paragraphs 5.a.(3)(d), 5.a.(3)(1), 5.a.(3)(p) and 5.a.(3)(r) of reference (b). These paragraphs identify actions which require Marine Corps concurrence of the proposed action.
- e. The subject EIA failed to address methods of human waste disposal to be utilized to protect nearby New River oyster gardens from possible contamination.





- f. The EIAs failed to address the old chemical dump which is within 600 meters of TLZ "0w1".
- 2. It is recommended that a more detailed analysis of the proposed actions be developed with emphasis on what means and measures will be taken to prevent and abate potential problems.

F. H. MOUNT



## TRAINING FACILITIES BRANCH Marine Corps Base Camp Lejeune, North Carolina 28542

TFAC/GGG/ves 11000 7 November 1980

From: Training Facilities Officer

To: Assistant Chief of Staff, Facilities

Subi: Environmental Impact Assessment for Proposed Establishment of

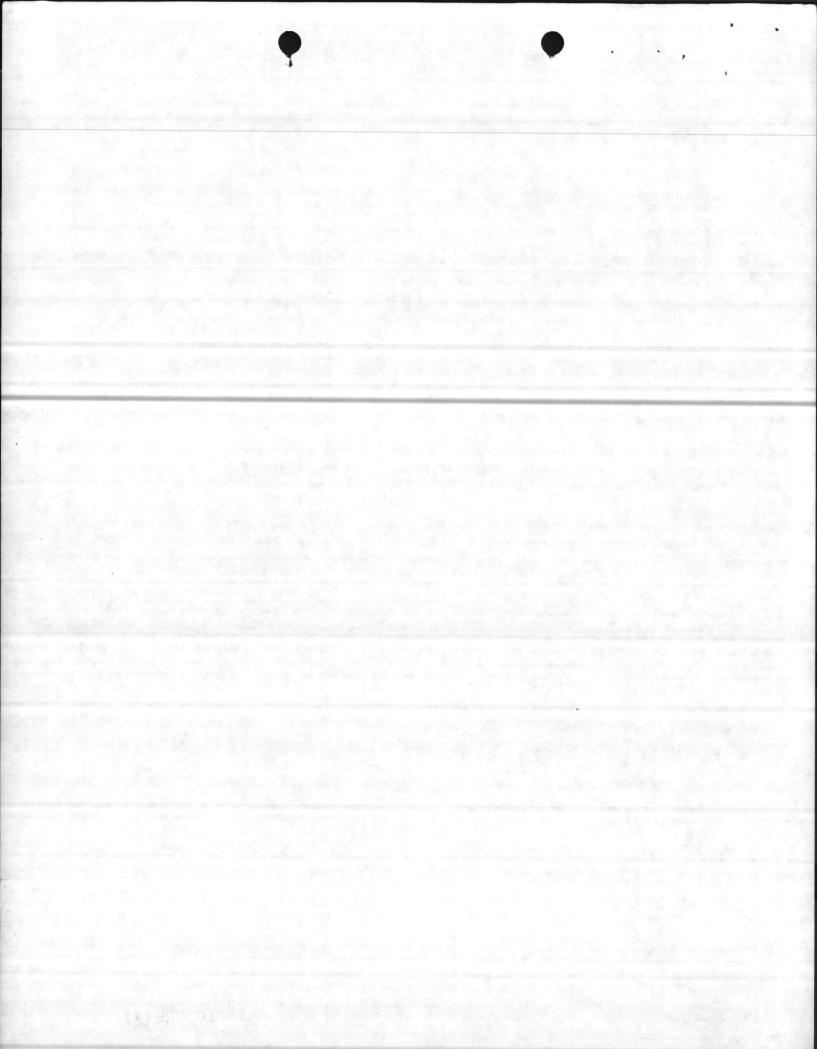
Stone Bay Combat Town

Encl: (1) Environmental Impact Assessment Establishment

1. It is presently intended to develop the Stone Bay Complex (formerly the Correctional Custody Facilities) into a facility for training in built-up areas.

2. The purpose, of this study, is to enhance the training opportunities for the 2d Marine Division, therefore, enclosure (1) is submitted for appropriate action.

G. G. GARWICK



# DEPARTMENT OF THE NAVY UNITED STATES MARINE CORPS

#### ENVIRONMENT IMPACT ASSESSMENT

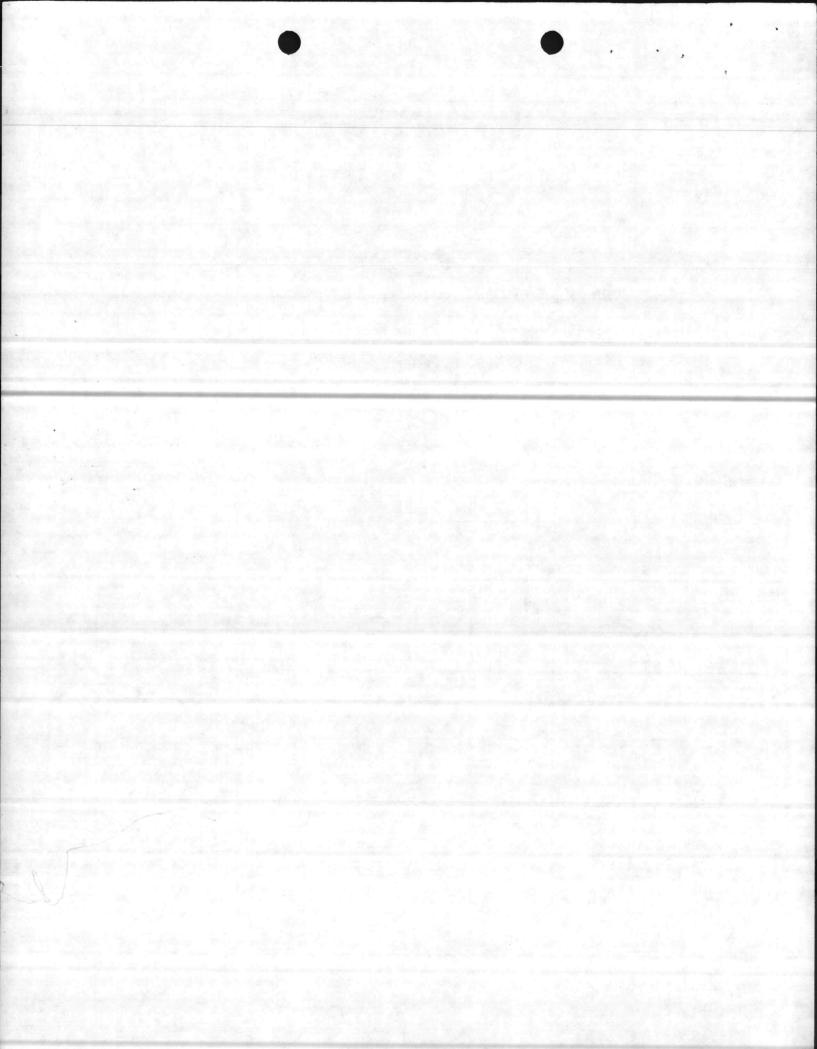
E	STABLISHMEN	NT of STONE	BAY COMBAT TO	WN		
		(P:	roject Title)			
MAI	RINE CORPS	BASE. CAMP	LEJEUNE, NORT	H CAROLINA	28542	42.743

6 November 1980 (Date)

(Military Installation)

Prepared by:

1stLt K. W. COREDERO
Title



ENVIRORMENTAL MEPACT ASSESSMENT

Submitting DoD Component: Department of the Mavy

Installation: Marine Corps Base, Camp Lejeune, N. C. 28542

Project Title: Stone Bay Combat Town

Date of Submission: 55 November 1980

#### 1. Introduction

a. Project Description Project is to establish a combat town in the vicinity of the base rifle range. There are 24 buildings which can be used in conjunction with maneuver area LC and Tactical Landing Zone Owl. This project would utilize existing buildings (defunct camp correctional center) and would be operational 24 hours a day when scheduled for use by using units.

b. Stone Bay Combat Town is bounded by an intermittent stream to the north, to the west by hard surface roads and to the east by an unimproved road. The primary landing zone for troop operations will be TLZ Owl. Stone Bay Combat Town is approximately 600 meters from the base rifle range housing area. However the thickness of the trees and shrubs between the housing area and the proposed combat town plus the distances involved lead this office to conclude that the housing area would not be adversely affected by loud poises emitting from combat town LZ Owl is approximately 1,500 meters away from the housing rea and it is the conclusion of this officethat helicopter and troop movements from this landing zone will not

2. Relationship of Proposed Action to Land Use Plans, Policies and
Controls for the Affected Area:

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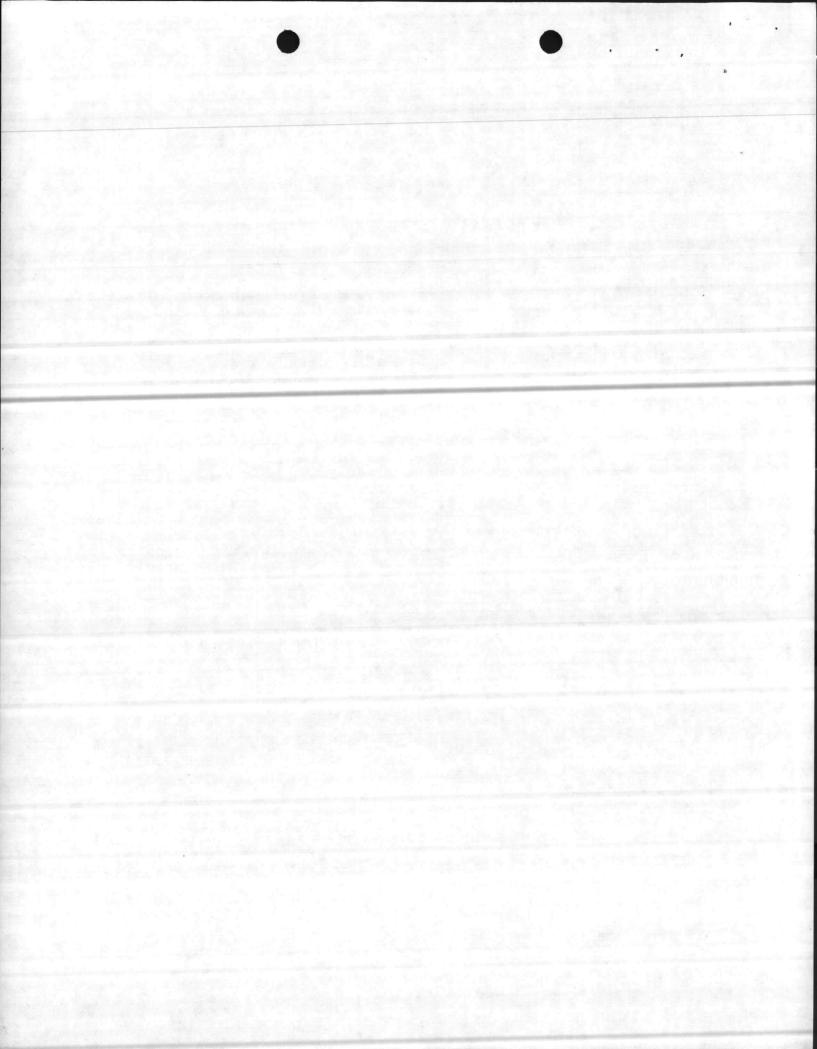
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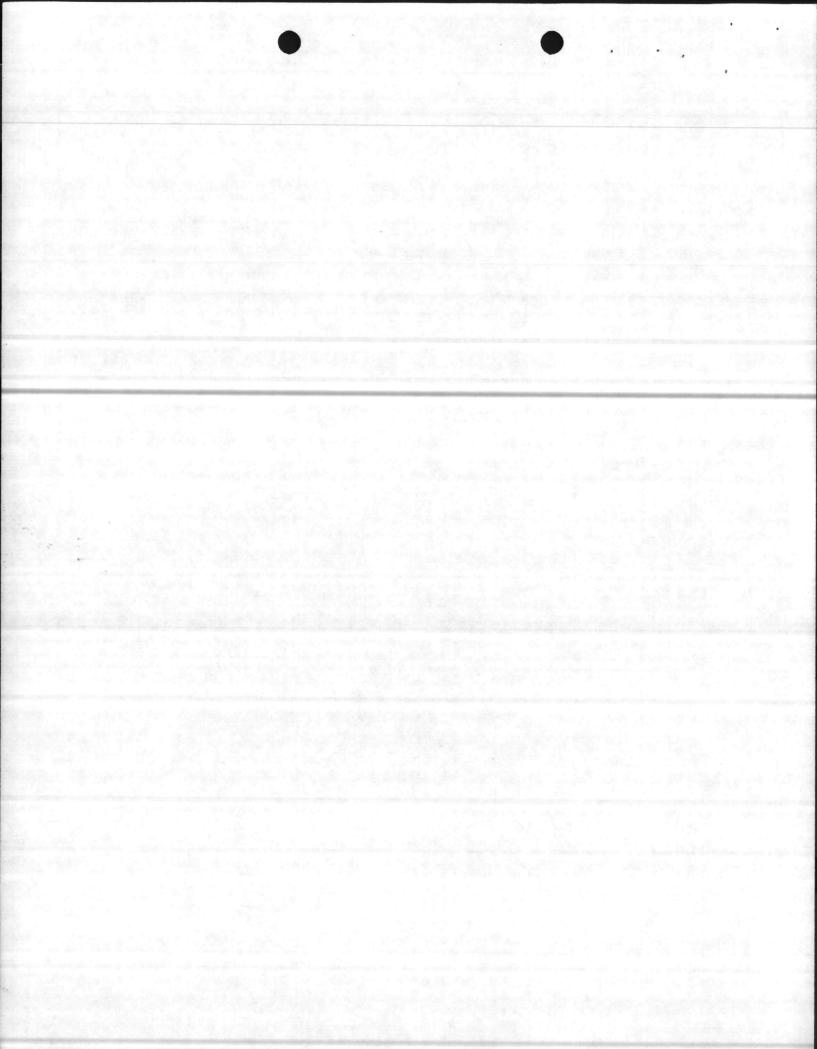
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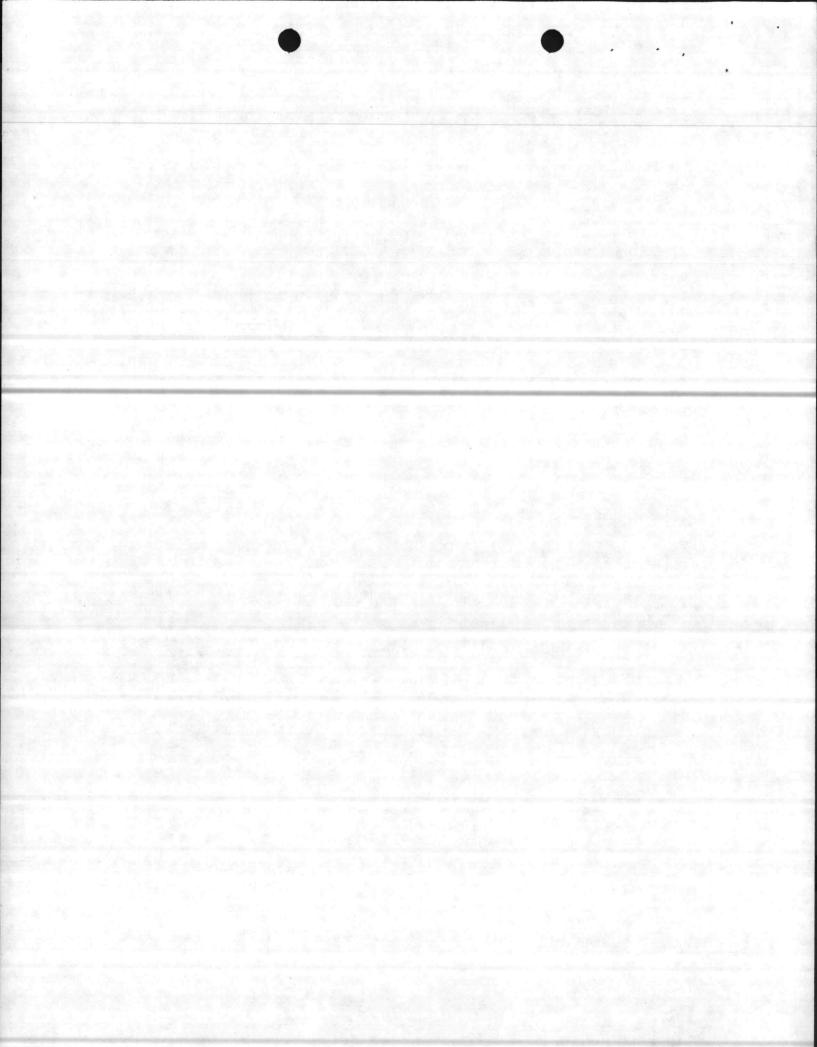
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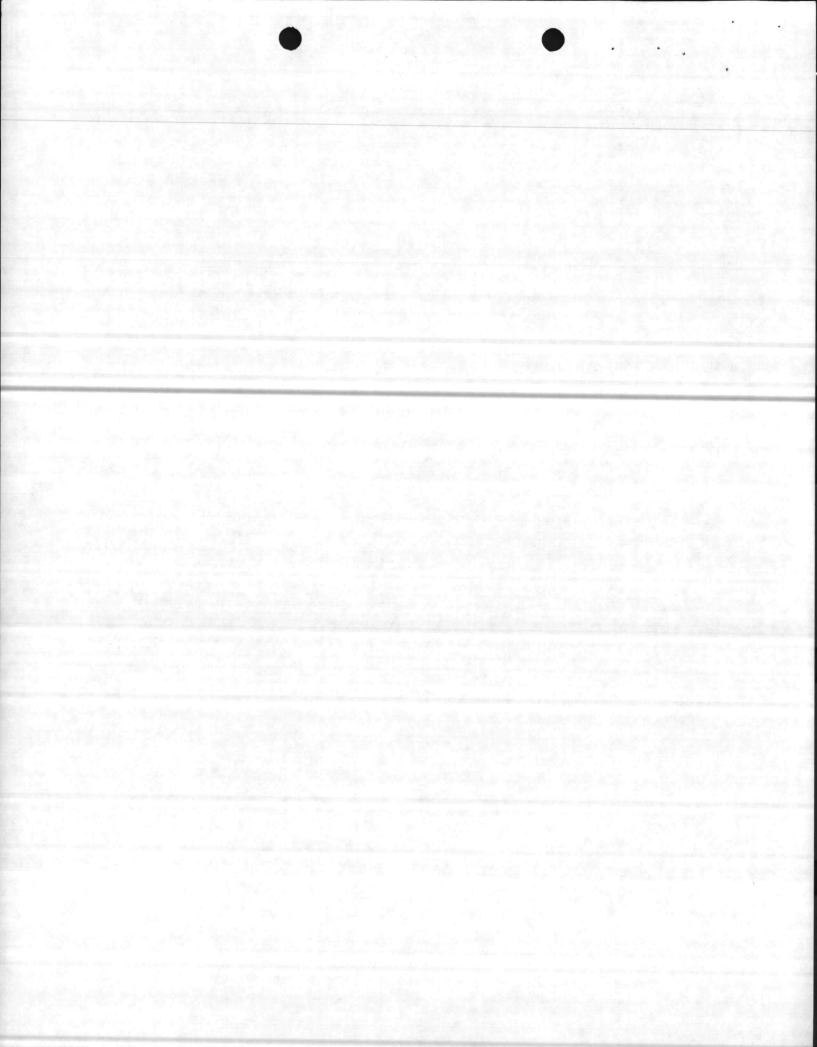
adversely affect the housing area of the rifle range.



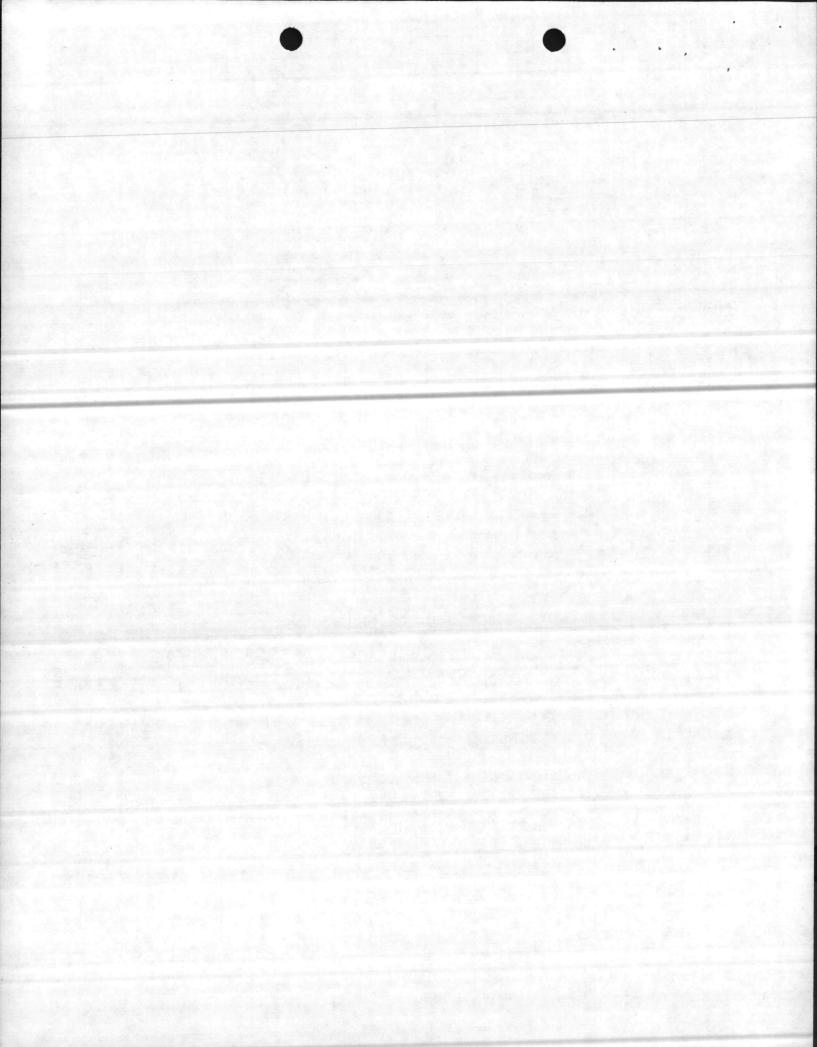
3. The probable Impact of the Proposed Action on the Environment: a. Assessment of the positive and negative effects of the proposed action as it affects both the national and/or the international environment. The potentially significant effect of this action is that it: (1) /will not cause emissions into the atmosphere of toxic or hazardous substances or significant amounts of other pollutants. It /will not significantly reduce the amount of pollution in the atmosphere? (2) /will not cause the creation of excessive noise, when considering the proximity and likely effects of the noise on humans or wildlife? (3) /will not introduce toxic or hazardous substances or significant amounts of chemicals, organic substances or solid wastes into bodies of water, on land or otherwise effect water or soil quality? (4) /will not significantly alter the rate of sediment deposit or temperature of a body of water? (5) /will not require the use of non-renewable energy sources, e.g., fossil fuels, etc., in apparently excessive or disproportionate amounts? (6) /will not result in a significant destruction of vegetation, wild or marine life? (7) [7] /will not affect, beneficially or adversely, other forms of life or the ecosystems of which they are a part? (8) /will not result in contamination or deterioration of food or food sources? (9) /will not affect population density and congestion? (10) /will not cause a major change in landscape, extensive clearing, paving or excavation? (11) will not affect, beneficially or adversely, neighborhood character (aesthetic qualities) and zoning? (12) /will not alter area hydrologic properties? 2



b. The proposed a	ction will have	a potential	ly signifi	cant effect
on the following:		Favorable	Adverse	No Effect
Traffic				
Community Fac	ilities			$\boxtimes$
Schools				
Waste Treatmo	ent Facilities			
Utilities				$\boxtimes$
Land Manageme	ent			X
Solid Waste				
Area Appeara		X		
	Attachment	)		
4. Alternatives to th	e Proposed Action	<u>on</u>		
	no feasible alt			
Only feas of this a	ible alternativ	e is to take discussed in	no action Attachmen	t #1
Various a	alternatives and	their effec	ts are dis	cussed in
		1 Fee-ata Uk	sich Cannot	Re Avoided
5. Any Probable Advers	rse Environmenta E Implemented	I ETTECUS WI	Tren cannot	. 60 1.10 1.0
		Andrianis	de Marie	
No adver	se effects on th	ne environme	nt are ant	icipated.
Probable	adverse effects	s are discus	sed in Atta	achment #2
6. Relationship Betw Maintenance and Enhan	een local Short	-Term Uses o	f the Envi	ronment and the
No chang	e in short-term	use.		



	No change in the m productivity.	aintenarce and/or enhancement of long-term
	Adverse effects on construction perio long-lasting adver	the environment will occur only during the d and these will/will not create permanent or se effects.
$\boxtimes$	The proposed actio	n will enhance the short-term use of resources by:
		Abating existing or potential pollution.
		Enhancing the area appearance.
		Reducing utility requirements
		Improvements in operational efficiency.
		Improvements in habitability of existing facilities.
		Other:
$\boxtimes$	Long-term product	ivity will be enhanced by:
		Abating existing or potential pollution. (Dust)
		Reducing utility requirements.
		Improvement in operational efficiency.
	$\boxtimes$	Other: maintenance of buildings
		and surrounding area
7. Irr	reversible and Irret ed in the Proposed A	rievable Commitments of Resources Which Would Be
X		rreversible or irretrievable commitment of
×	resources.	of identified archeological sites or sites having of or architectural interests.
X		own endangered species of wildlife.

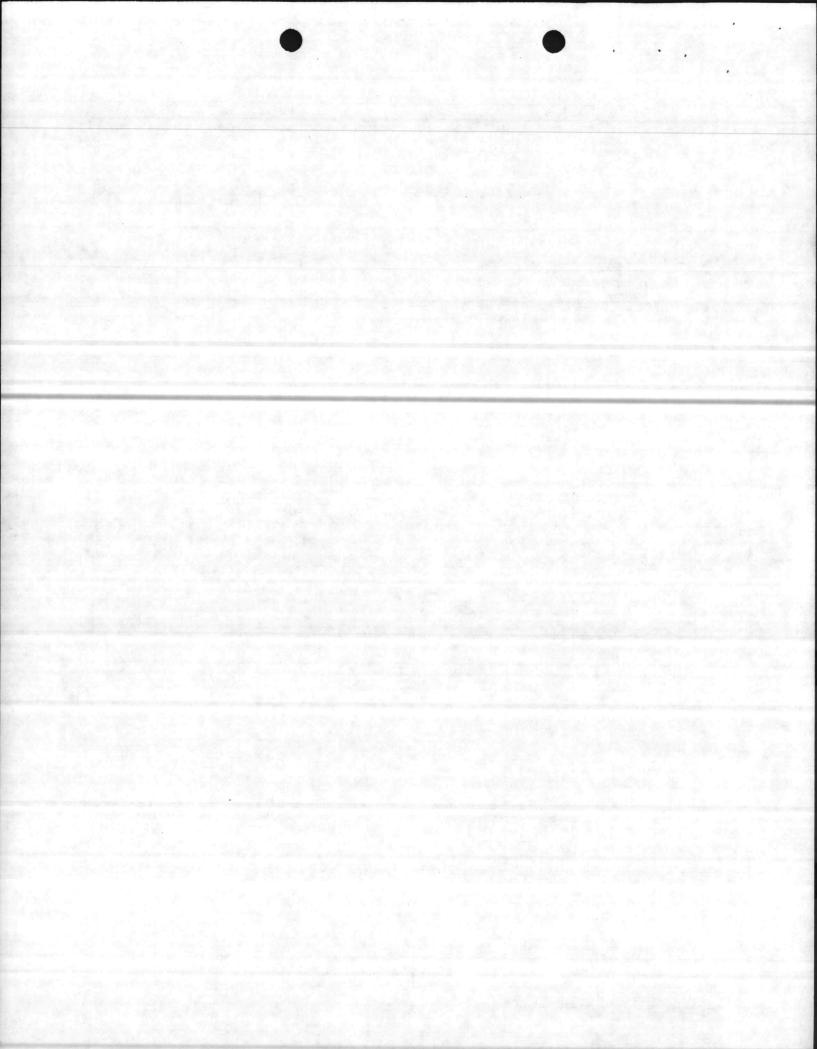


X	No significant change in land use.	
	Potentially significant irreversible or irretrievable commitments or resources are discussed in Attachment  Other:	
8. <u>Con</u> :	siderations That Offset the Adverse Environmental Effects	
effects	This course of action as compared to adverse environmental of alternatives (Section 4) are discussed in Attachment	
b.	. Cost benefit analysis of proposed action is Attachment $\pm 3$	
9. Summ	nary	
	It is concluded that the proposed action will have no significant adverse effects on the environment.	
	There has not been, nor is there currently, any known controversy concerning the proposed action.	
	Based on this assessment, it is concluded that an Environment impact Statement must be prepared prior to implementation of proposed action.	al , the
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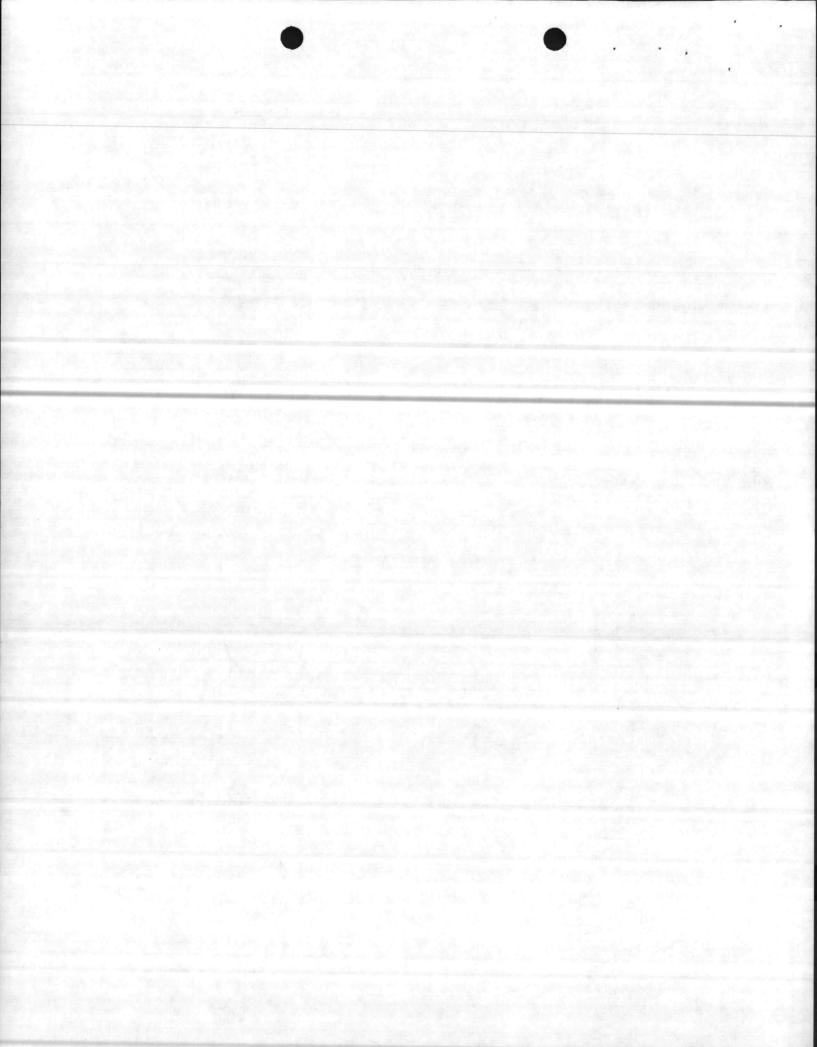
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### ATTACHMENT #1 ALTERNATIVES TO THE PROPOSED ACTION

There are various alternatives to the proposed establishment of Stone Bay Combat Town, of which, one alternative is to take no action. The twenty-four buildings which used to comprize the camp correctional center would be left to remain in their present state. It is the view of this office that to take no action on this proposal would lead to an unnecessary waste of the resources available aboard the base. The proposed site is in an ideal location that is unencumbered by an endangered species habitant, is accessible by military vehicles and helicopters and has maneuver areas nearby. The twenty-four buildings have potential as a site for training in a build up area. A labor-intense program to clear these buildings of trash and safety hazards would render the facility suitable for training. No major amounts of construction funds are needed nor requested. To take no action on this proposal would inevitably lead to the buildings falling into ruin and one less possible training facility for the Marines aboard this base.

Another alternative to the proposed action is to demolish the twentyfour buildings. The buildings would be razed and the area cleared. To
follow this course of action would be wasting a facility which potentially
has the earmarks of a fine training site as well as causing the expenditure of large sums of money unnecessarily. As stated earlier, this site
is ideal for infantry training in a built up area. Minimal amounts of
money are required to upgrade this facility. If the buildings are
cleared, the area will be of marginal use and will serve few, if any,
benefits towards the training requirements of division troops.

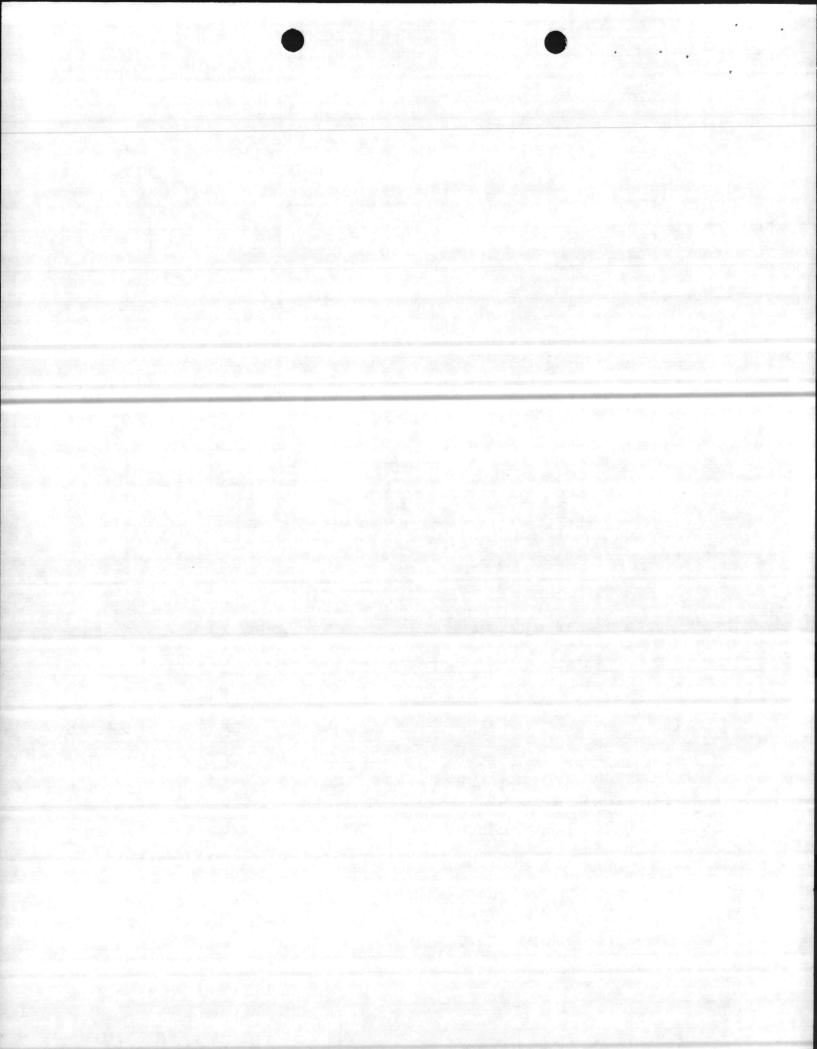


## PROBABLE ADVERSE EFFECTS WHICH CANNOT BE AVOIDED SHOULD THE PROPOSAL BE IMPLEMENTED

A probable adverse effect which may come into being should this proposal be implemented, is excessive noise. Infantry units will use Stone Bay Combat Town with machine gun and artillery simulators and will fire blanks from rifles. The noise will be compounded with tactical vehicles such as jeeps and trucks.

However the noise is lessened a great deal by the trees and shrub growth which surround the proposed Stone Bay Combat Town. The noise from machine gun and artillery simulators can barely be heard several hundred meters away on an open field. In a location such as Stone Bay the nearest residential houses are approximately 600 meters away with trees and thick shrubs in between. It is the view of this office, that adverse environmental effects from noise will be minimal because of the distance involved and the relative thickness of the forest buffer between the houses and the proposed Combat Town.

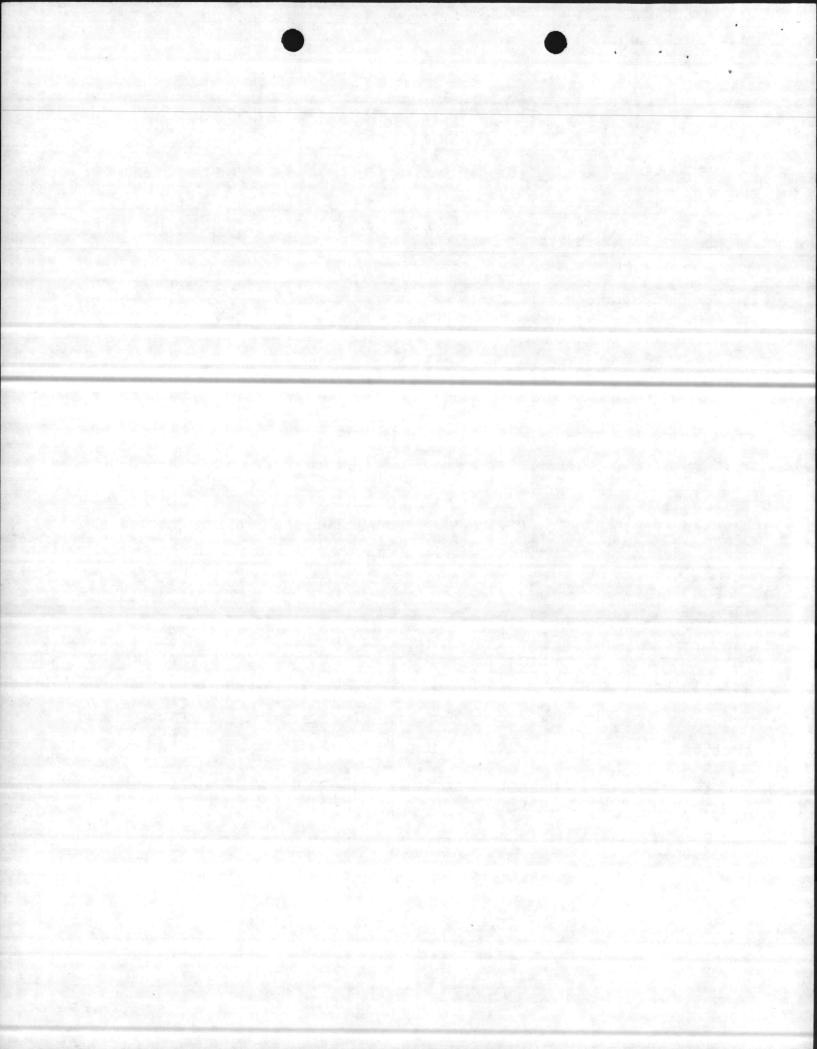
Combat Town is scheduled in the average of 12 days a month with actual use time probably less. With the addition of Stone Bay Combat Town it is probable that this number of scheduled days will be halved. Tactical Landing Zone OWL, which is about 1800 meters from residential houses, will be the primary landing zone for units using. Stone Bay is also far enough away from residential houses so that noise from helicopters will be minimal. Aircraft approaches to TLZ OWL will be tailored so that aircraft will not overflight on residential areas.



### ATTACHMENT #3 COST-BENEFIT ANALYSIS OF PROPOSED ACTION

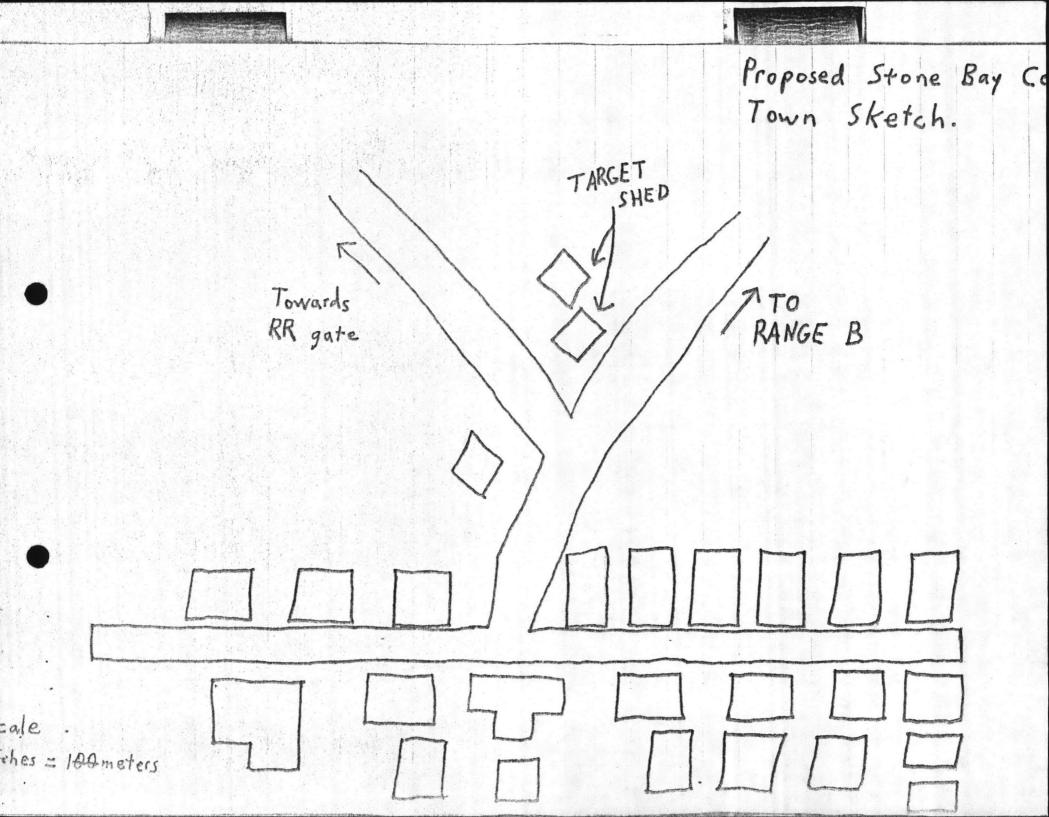
The establishment of Stone Bay Combat Town would incur the extensive use of man-hours to remove glass windows and trash. The shoring of roofs and walls in some of the buildings would also need to be finished before utilization of this facility could be accomplished. Maintenance of this facility, such as cutting the grass would need to be performed continuously.

Benefits of establishing Stone Bay Combat Town far outweigh any cost factors. Infantry units could be rotated between the established Combat Town and Stone Bay in order to give training units a fresh perspective instead of using the same facilities continuously. Helicopters could land at TLZ Owl and troops could then maneuver through areas they have never worked in, giving them more experience in land navigation and compass reading. With more units rotated through Stone Bay Combat Town the use of Combat Town, which is located in a red-cockaded woodpecker endangered species area, would be reduced to insure the survival of this species. The establishment of Stone Bay Combat Town would greatly enhance the training facilities aboard the base and is a project from which the projected benefits clearly outweigh any cost factors.



16475/5 Assessments of Training Exer-ACTIVE cise/Range Change







## TRAINING FACILITIES BRANCH Marine Corps Base Camp Lejeune, North Carolina 28542

TFAC/GGG/cs 11000 10 Nov 1980

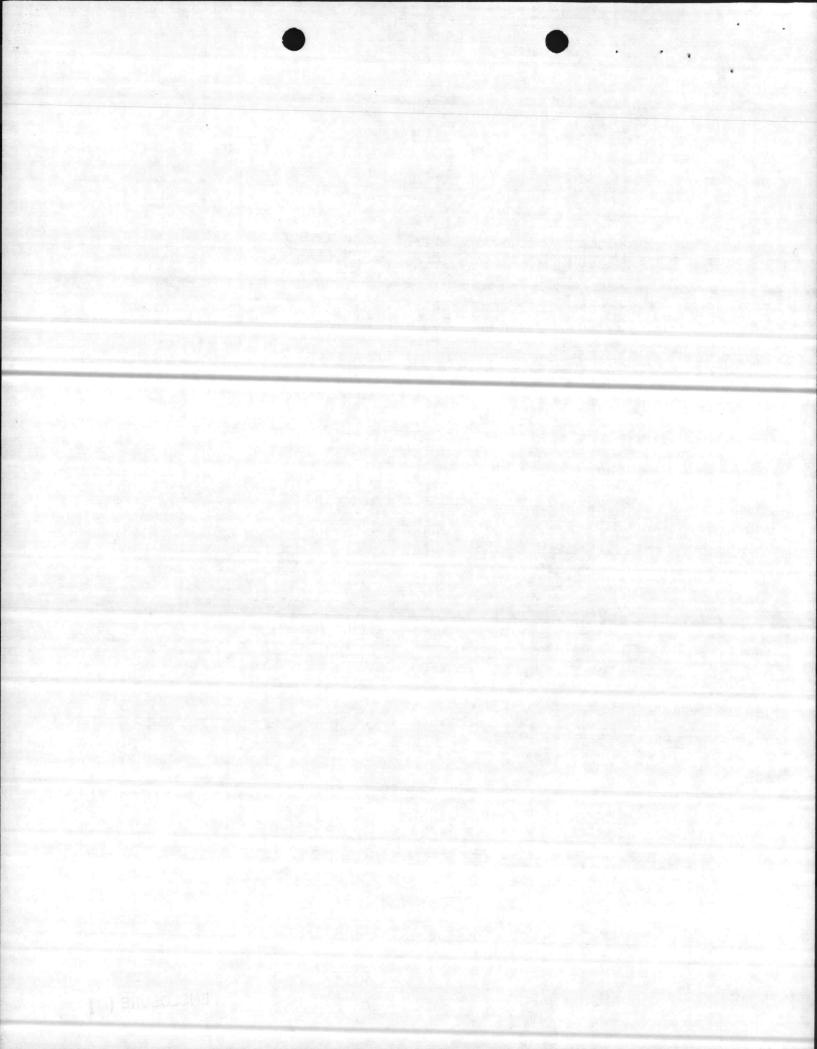
From: Training Facilities Officer

To: Assistant Chief of Staff, Facilities
Via: Assistant Chief of Staff, Training

Subj: Environmental Impact Assessment for Proposed Expansion of Tactical Landing Zone "OWL"

Encl: (1) Environmental Impact Assessment on Expansion of Tactical Landing Zone OWL

- 1. With the proposed establishment of Stone Bay Combat Town, tactical landing zone OWL and its present dimensions of 175 meters by 150 meters is limited to small (platoon size) assaults and cannot be utilized to its optimum capabilities as a tactical landing zone.
- 2. The purpose of this study is to expand TLZ OWL to 400 meters by 300 meters to accommodate a full company-size helicopter assault to increase the training evolution, thus enhancing realistically simulated combat assault in a built-up area and would complement the establishment of Stone Bay Combat Town.



### DEPARTMENT OF THE NAVY UNITED STATES MARINE CORPS

#### ENVIRONMENT IMPACT ASSESSMENT

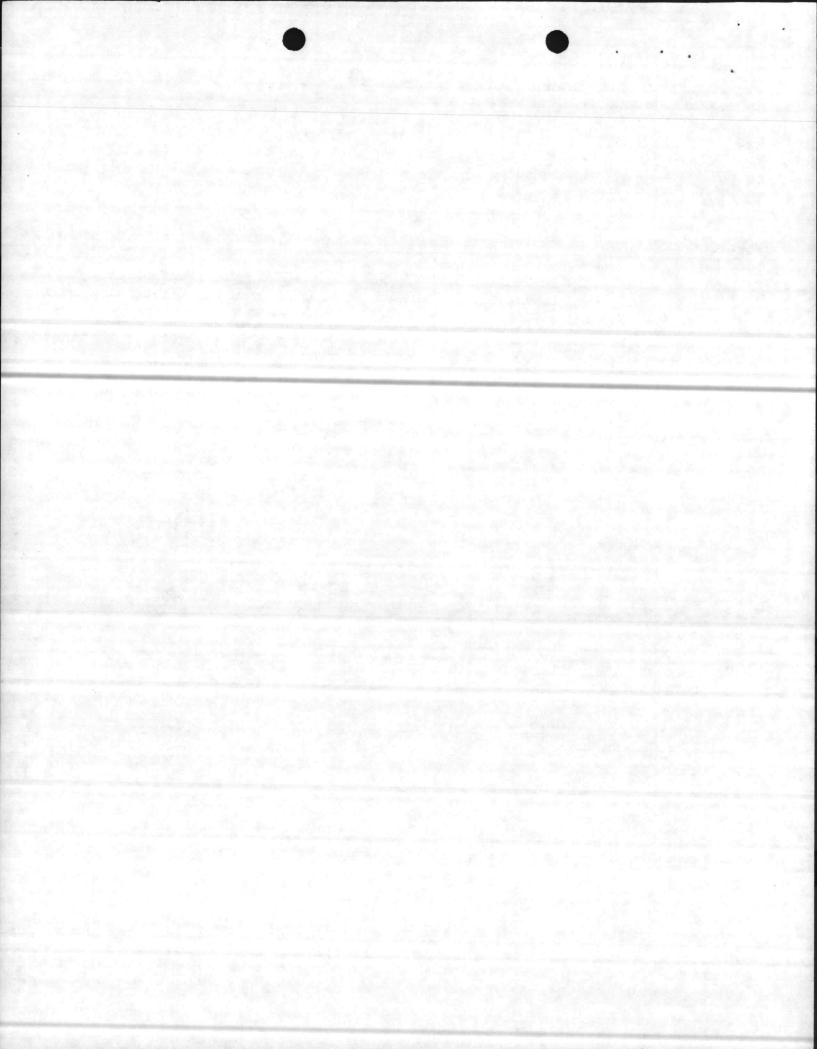
_EXPANSION_	OF TACTICAL LAND	ING ZONE OWL	 	
	(Proje	ect Title)		

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542 (Military Installation)

> 7 November 1980 (Date)

Prepared by:

1stLt K. W. CORDERO Title



ENVIRONMENTAL AMPACT ASSESSMENT

Submitting DoD Component: Department of the Havy

Installation: Marine Corps Base, Camp Lejeune, N. C. 28542

Project Title: Expansion of Tactical Landing Zone Owl

Date of Submission: 5 November 1980

#### 1. Introduction

a. Project Description Project is to expand Tactical Landing Zone Owl from its present dimensions of 175 meters by 150 meters to 400 meters by 300 meters. The purpose of this expansion is to accommodate at least one combat rifle company landing simultaneously from helicopters to more realistically simulate actual combat conditions.

 $b. \ \,$  The expansion of TLZ Owl would complement the establishment of Stone Bay Combat Town.

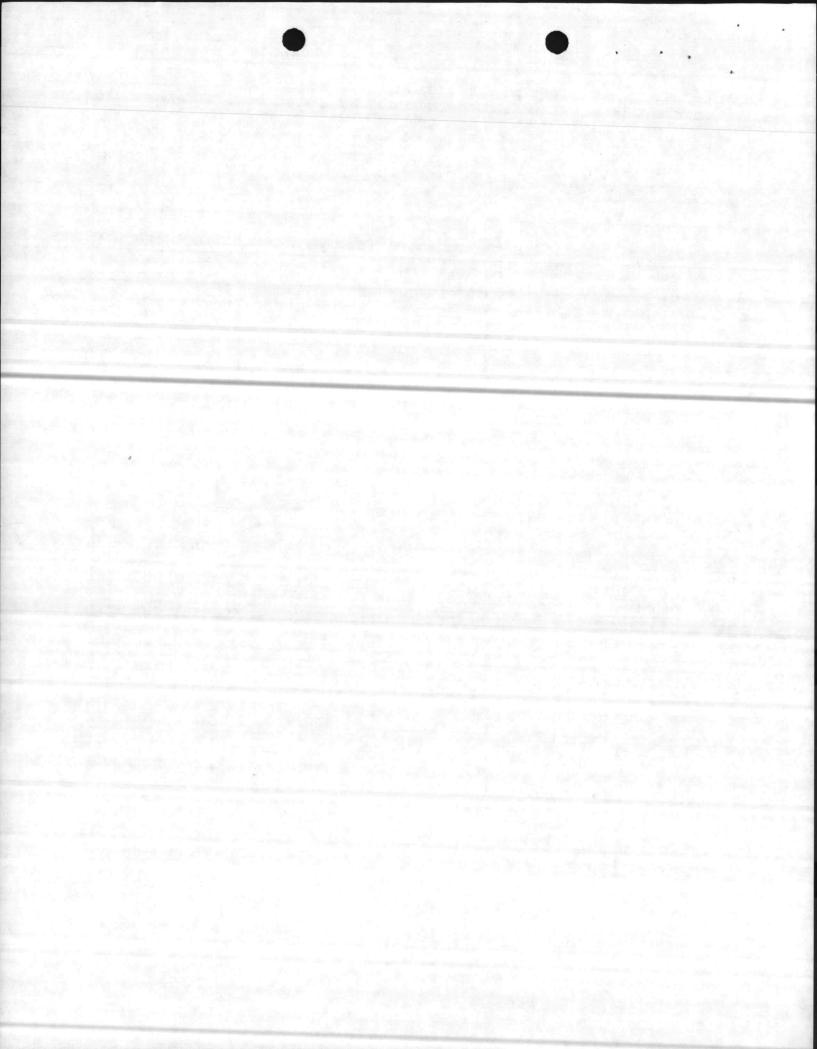
2. Relationship of Proposed Action to Land Use Plans, Policies and
Controls for the Arfected Area:

Conforms No Plans Conflicts
With For Area With

a. Land Use Plans

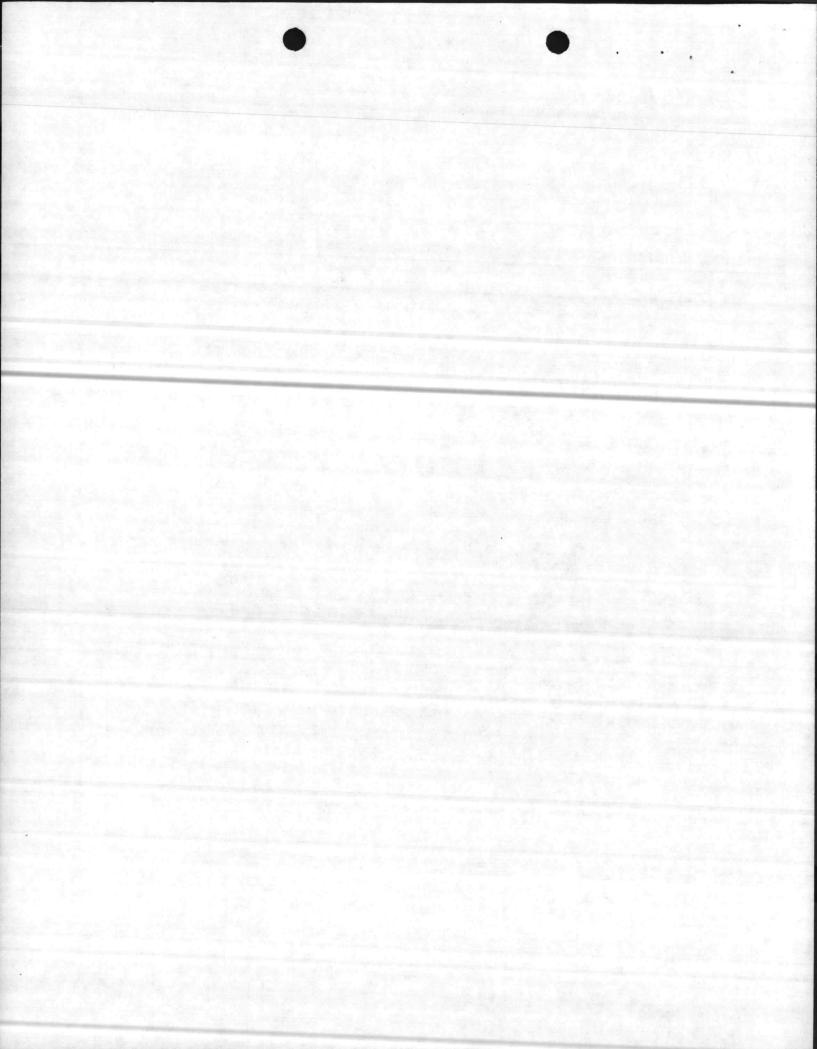
D. Clear Air Control

c. Federal Water Pollution Control Act

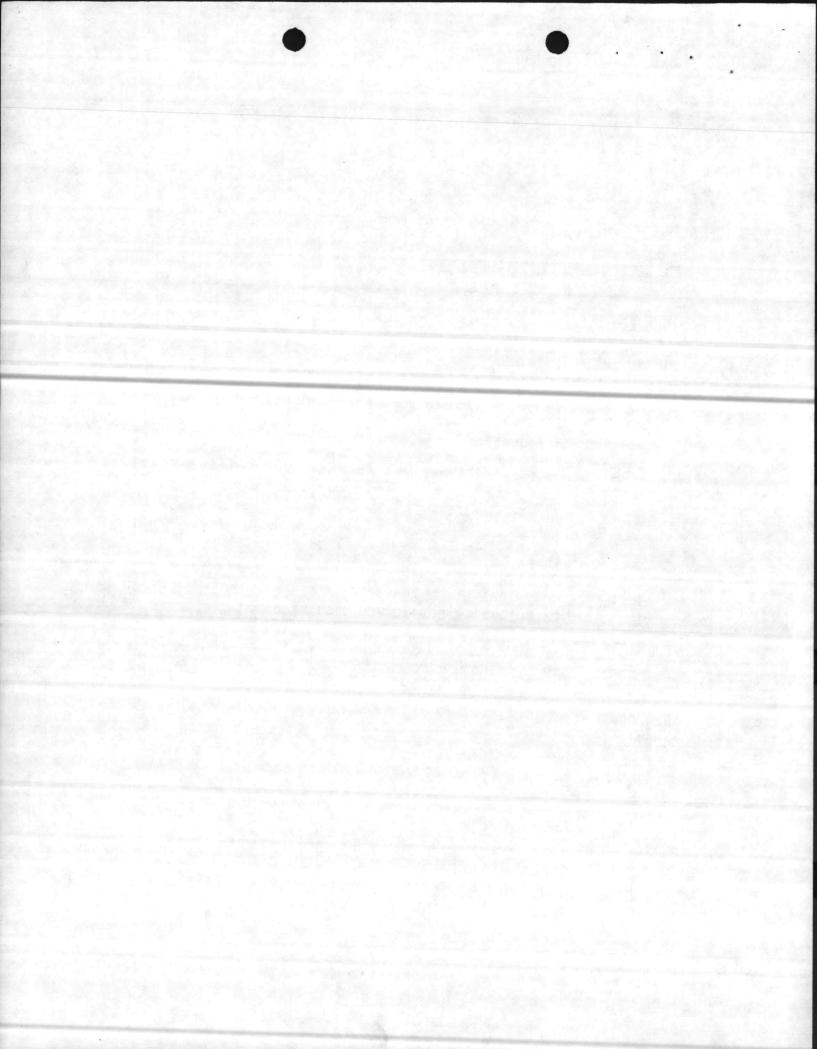


## 3. The probable Impact of the Proposed Action on the Environment:

- a. Assessment of the positive and negative effects of the proposed action as it affects both the national and/or the international environment. The potentially significant effect of this action is that it:
- (1) /will not cause emissions into the atmosphere of toxic or hazardous substances or significant amounts of other pollutants. It /will not significantly reduce the amount of pollution in the atmosphere?
- (2) /will not cause the creation of excessive noise, when considering the proximity and likely effects of the noise on humans or wildlife?
- (3) /will not introduce toxic or hazardous substances or significant amounts of chemicals, organic substances or solid wastes into bodies of water, on land or otherwise effect water or soil quality?
- (4) /will not significantly alter the rate of sediment deposit or temperature of a body of water?
- (5) /will not require the use of non-renewable energy sources, e.g., fossil fuels, etc., in apparently excessive or disproportionate amounts?
- (6) /will not result in a significant destruction of vegetation, wild or marine life?
- (7) /will not affect, beneficially or adversely, other forms of life or the ecosystems of which they are a part?
  - (8) /will not result in contamination or deterioration of food or food sources?
    - (9) /will not affect population density and congestion?
- (10) /will not cause a major change in landscape, extensive clearing, paving or excavation?
- (11) /will not affect, beneficially or adversely, neighborhood character (aesthetic qualities) and zoning?
  - (12) /will not alter area hydrologic properties?



b.	The proposed	action will have	e a potential	ly signific	cant effect
on the fo	illowing:	·			
	ITEM		Favorable	Adverse	No Effect
	Traffic				
	Community F	acilities	님	님	
	Schools		님		
	Waste Treat	tment Facilities			
	Utilities			H	[X]
	Land Manage	ement			
	Solid Wast	e Disposal		$\Box$	
	Area Appea	rance	Ш	Ш	
	Other (Se	e Attachment	_)		
4. Alte	rnatives to	the Proposed Act	ion		
□	There i	s no feasible al	ternative.		
	Only fe	asible alternati alternative are	ve is to take discussed in	e no action Attachmen	The effects t #1
	Various Attachm	alternatives an	d their effec	cts are dis	cussed in
		F. January	al Effocts W	hich Cannot	Be Avoided
5. Any Should	Probable Adv The Proposal	verse Environment Be Implemented	al Effects in	Ten cames	
				. Weigh	Coinstad
		erse effects on t			
$\bowtie$		le adverse effect			
6. Rel Mainten	ationship Be ance and Enh	tween Local Shor	t-Term Uses o -Term Product	of the Envir	ronment and the
	No cha	nge in short-ter	n use.		

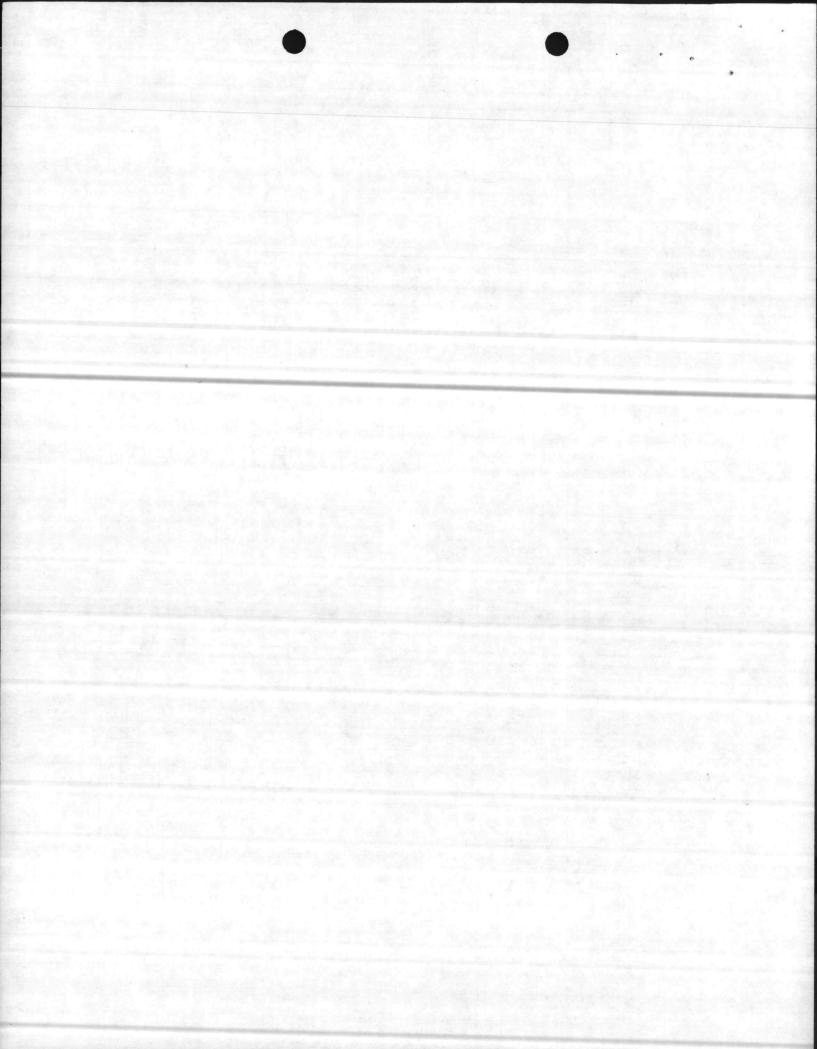


	No change in the m productivity.	naintenance and/or enhancement of long-term
	Adverse effects or construction period long-lasting adver	the environment will occur only during the od and these //will not create permanent or rse effects.
	The proposed action	on will enhance the short-term use of resources by:
		Abating existing or potential pollution.
		Enhancing the area appearance.
		Reducing utility requirements
		Improvements in operational efficiency.
		Improvements in habitability of existing facilities.
		Other:
		ivity will be enhanced by:
		Abating existing or potential pollution. (Dust)
		Reducing utility requirements.
	H	Improvement in operational efficiency.
		Other:
7. Ir	reversible and Irreted in the Proposed A	trievable Commitments of Resources Which Would Be Action Should It Be Implemented
	No significant resources.	irreversible or irretrievable commitment of of identified archeological sites or sites having ic or architectural interests.
$\boxtimes$	No effect on kn	own endangered species of wildlife.



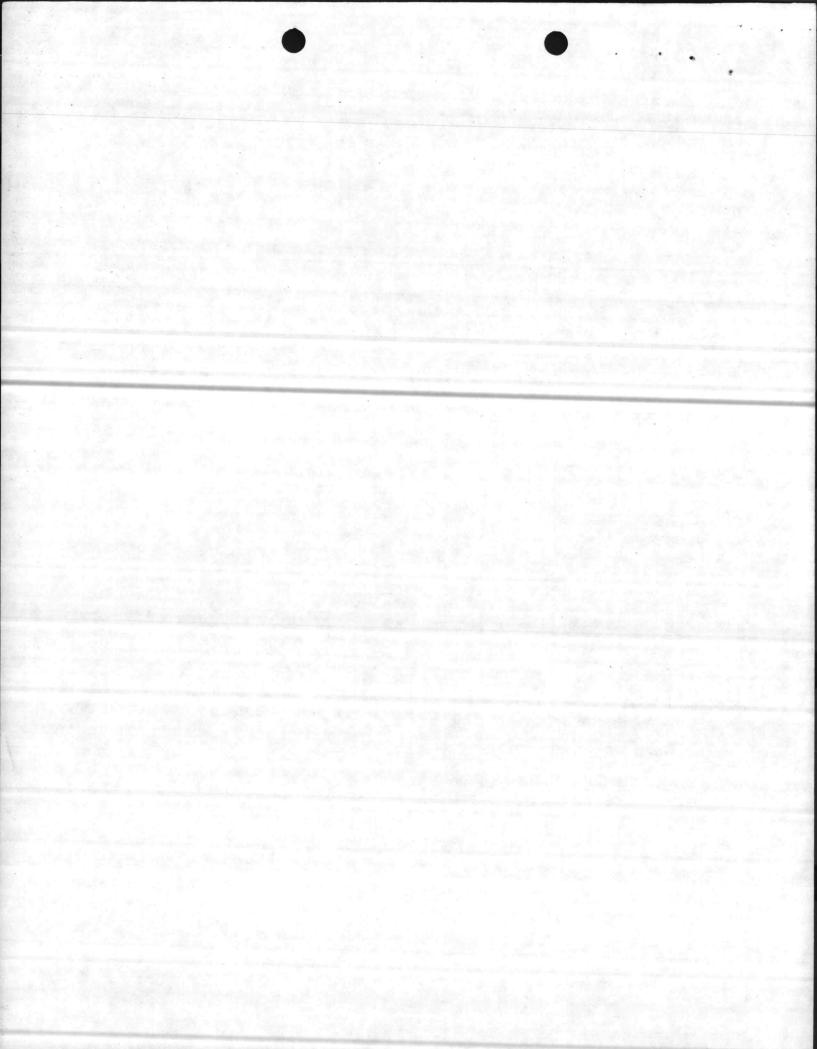
	No significant change in land use.
	Potentially significant irreversible or irretrievable commitments or resources are discussed in Attachment
Ш	Other:
8. Consi	derations That Offset the Adverse Environmental Effects
a. effects	This course of action as compared to adverse environmental of alternatives (Section 4) are discussed in Attachment
b.	Cost benefit analysis of proposed action is Attachment
9. Summan	c <u>y</u>
	It is concluded that the proposed action will have no significant adverse effects on the environment.
	There has not been, nor is there currently, any known controversy concerning the proposed action.
	Based on this assessment, it is concluded that an Environmental Impact Statement must be prepared prior to implementation of the proposed action.

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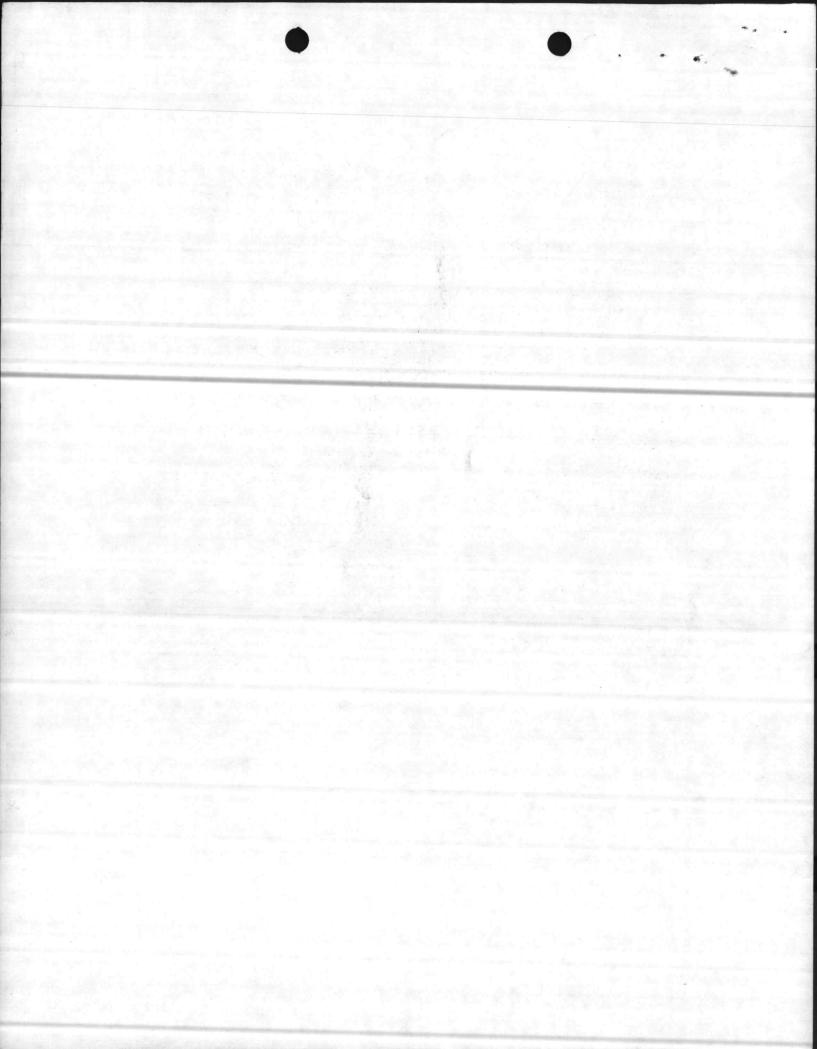
### ATTACHMENT #1 ALTERNATIVES TO THE PROPOSED ACTION

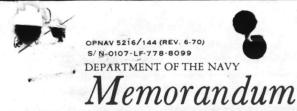
There is another feasible alternative to the proposed project of expanding Tactical Landing Zone Owl. That alternative is to take no action. By following this course of action it is the view of this office that the facilities of Stone Bay Combat Town will never be utilized to their optimum level. With no expansion of TLZ Owl infantry units would be forced to land piecemeal instead of the whole company at once, which tactics now stress. While it is not imperative that TLZ Owl be expanded for its intended use in conjunction with Stone Bay Combat Town, it will greatly enhance that facility.



# PROBABLE ADVERSE EFFECTS SHOULD PROPOSAL BE IMPLEMENTED ATTACHMENT #2

A probable adverse effect that may occur should the expansion of TLZ Owl be implemented is loud noises from this landing zone. The use of LZ Owl would include troops and vehicles off-loaded from helicopters. The loud noises that will come from helicopter operations in LZ Owl are effectively mitigated by the fact that the nearest houses are 1,500 meters distant and the forest provides an excellent buffer area between these houses and the landing zone. Dust and other debris stirred up by helicopters would be too far away from housing areas to affect them in any way.





Folder Training Active

MAIN/DDS/th 11015/1 DATE: 24 June 1981

FROM

Supvy Ecologist

TO

MEMORANDUM FOR THE RECORD

SUBJ

Ellis Cove (Sneeds Creek) Bridge Construction Training Site

Ref:

- (a) US Army Corps of Engrs 1tr of 10 June 1981
- 1. During an on-site review by the Supervisory Ecologist of the subject site on 15 June 1981 where Bridge Company, 2d FSSG, conducted training during period 8-15 June 1981, it was observed that a M4T6 floating bridge and a foot bridge construction exercise was carried out approximately 300 meters down stream from the M6 birdge site referred to in reference (a). Minor damage to marshgrass occurred. Also, clearing of shoreline to accommodate project has created a moderate erosion and sedimentation hazard.
- 2. The site where the M-6 bridge was constructed was also reviewed. The bridge had already been erected and removed. The exercise appeared to go as planned. Minor problems of oil(fuel) leakages associated with a small fuel bladder was observed. Otherwise, future use of the site seems appropriate.
- 3. Of concern, is that none of the discussions with the US Coast Guard and Army Corps of Engineers officials (reference (a)) addressed the M4T6 bridge discussed in paragraph 1 above. At no time during the planning stages of the project did Bridge Company, 2dFSSG, discuss that the M4T6 bridge would be part of the exercise. For the record, it should be noted that the construction of the M4T6 bridge and foot bridge described in paragraph 1 has not been approved by NREAD nor does reference (a) address this item.

Danny Starge

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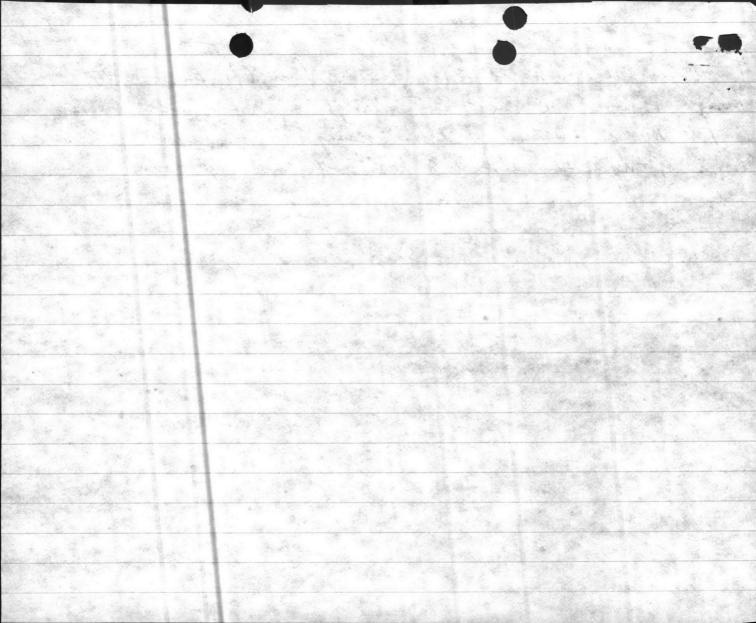
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BASE MAINT DEPT Person I it is also noted that on 23 June 81 a men foot tribge observed a new foot bridge across Duck breek. The bridge which blacks novigations regimes army Corps of Engineers and US Coast toward approval





## DEPARTMENT OF THE ARMY WILMINGTON DISTRICT. CORPS OF ENGINEERS P. O. BOX 1890

WILMINGTON, NORTH CAROLINA 28402

IN REPLY REFER TO

SAWCO-EP

10 June 1981

SUBJECT: Construction of a Temporary Bridge Across Sneads Creek

Commanding General Marine Corps Base

ATTN: Assistant Chief of Staff, Facilities

Camp Lejeune, NC 28542

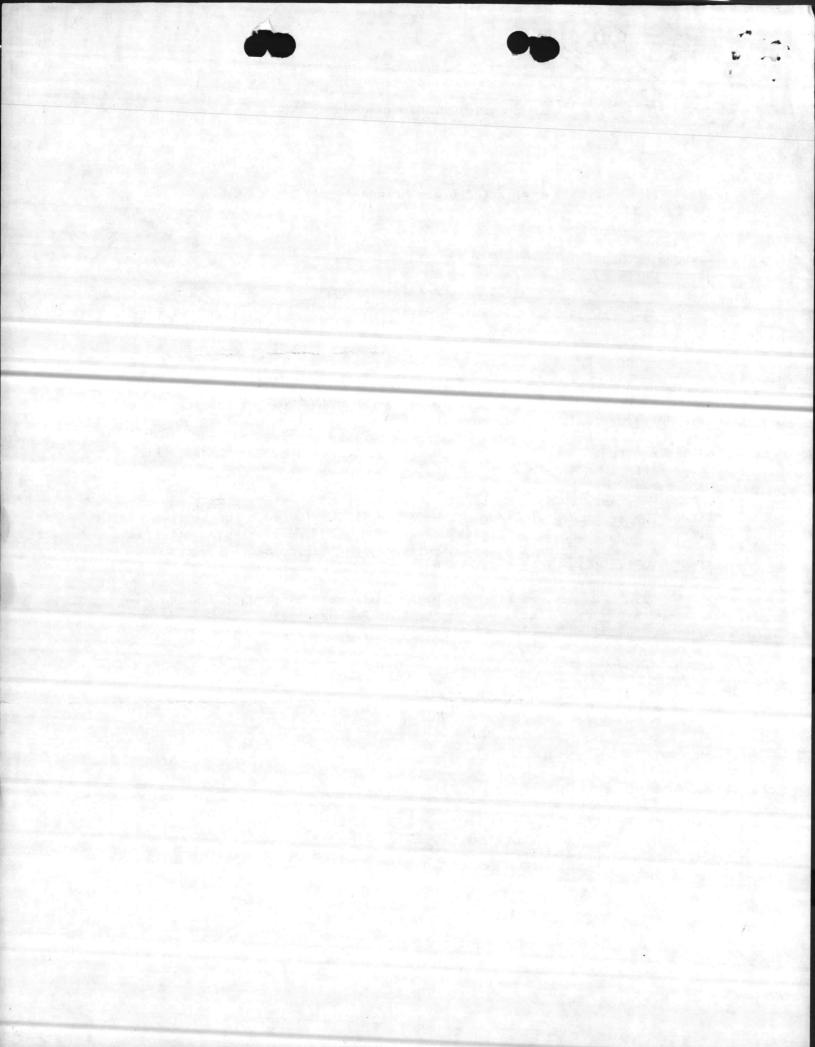
- 1. Reference the telephone conversation of 5 June 1981 between Mr. Dan Sharp, Base Maintenance and Mr. Ernest Jahnke of my staff. The purpose of this conversation was to discuss the construction of a temporary bridge across Sneads Creek approximately 1/2 mile upstream from its confluence with Ellis Cove on the New River near the Sneads Ferry Gate, Camp Lejeune Marine Corps Base.
- 2. As Mr. Sharp explained, permanent concrete abutments are in place at the site. The structure will consist of a single span between the abutments with no ground supports. It will be erected and disassembled as often as training needs require. Based on this information, no Section 10 or 404 permits will be required from the Department of the Army.
- 3. We have been advised that the U.S. Coast Guard has been contacted on this matter by your staff. If you have questions, please call Mr. Jahnke at (919) 343-4467 or FTS 671-4467.

FOR THE COMMANDER:

CHARLES W. HOLLIS Chief, Regulatory Functions Branch

CF:

Commanding General
Marine Corps Base
ATTN: Base Maintenance Officer
Camp Lejeune, NC 28542



## DEPARTMENT OF THE ARMY U. S. ARMY ENGINEER DISTRICT, WILMINGTON CORPS OF ENGINEERS

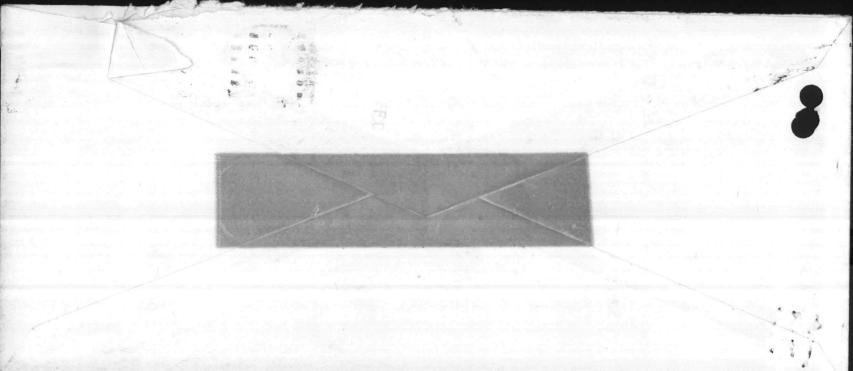
CORPS OF ENGINEERS P. O. BOX 1890

WILMINGTON, NORTH CAROLINA 28402

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



Commanding General Marine Corps Base ATTN: Base Maintenance Officer Camp Lejeune, NC 28542



MAIN/BWE/th 16475 MAY 1 9 1981

From: Commanding General

To:

Commanding General, 2d Force Service Support Group (2d FSSG)

(Attn: Commanding Officer, Bridge Company)

Subj: Training Site for Bridge Construction; request for

Ref: (a) BO 11000.1A

- 1. The subject request proposed to reactivate a bridge construction training site across Sneads Creek at map coordinate 800306. The subject request proposes to carry out a bridge construction exercise approximately once per month on a continuing basis.
- 2. Following an on-site visit by the Base Maintenance and 2d FSSG representatives it was determined that prior approval and permits will be required from the U. S. Coast Guard and the Army Corps of Engineers. On 11 May 1981, MSGT Waters, 2d FSSG, was funnished with a list of information required by the U. S. Coast Guard.
- 3. It is also recommended that a Preliminary Environmental Assessment (PEA) be developed in accordance with reference (a). The PEA and other information should be submitted to the Base Environmental Impact Review Board via the Assistant Chief of Staff, Training.
- 4. Point of contact is Mr. J. I. Wooten, Base Maintenance Department, Natural Resources and Environmental Affairs Division, extension 5003.

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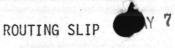
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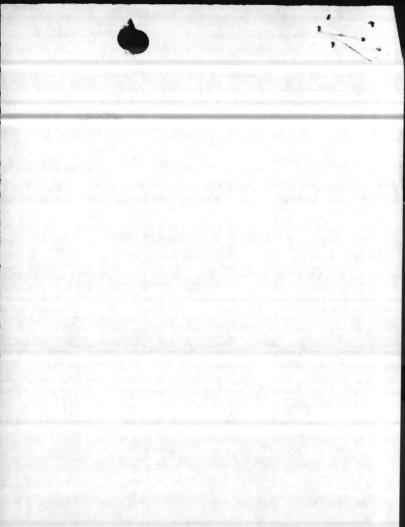
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#### ASSISTANT CHIEF OF STAFF, FACILITIES HEADQUARTERS, MARINE CORPS BASE

DATE 6 May 81

TO:

BASE MAINT O

PUBLIC WORKS O

COMM-ELECT O

MOTOR TRANSPORT O

ATTN:

DIR. OUARTERS & HOUSING

DIR, BOQ/BSQ

BASE FIRE CHIEF

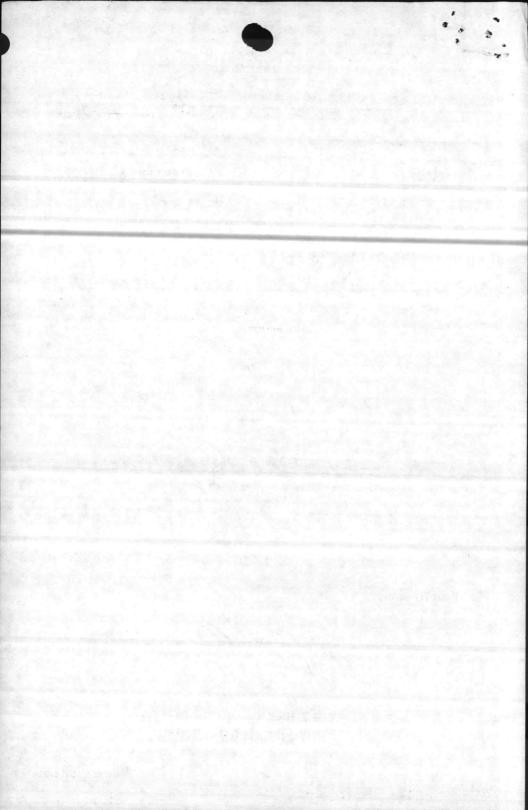
1. Attached is forwarded for info/action.

2. Please initial, or comment, and return all papers to this office.

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/COMM NOTE// FAC RORINGE TIME ON DIST

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UNCLAS -//N11011//

SUBJ: PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) UPDATE FOR AMPHIBIOUS ASSAULT FUEL SYSTEM (AAFS) USL DURING SOLIU SHIELD 81

- CINCLANTELT NORFOLK VA 151300Z APR 81 (NOTAL)
- CG FOURTH MAB 0721 UOZ APR 81 (NOTAL) 3.
- CG F F LANT 21194 0Z APR 81 C .

GE UZ PULYSEG7465 UNCLAS

- COGARU MSO WILMINGTON NC 161 900Z APR BI (NOTAL) n.
- COMPHIEGRU TWO 222230Z APR 81 (NOTAL) £ .
- FONE CON LIWN G. HENRY, U.S. FISH AND WILDLIFE SER (FWS) AND P. JAPVIS, LANTNAVFALENGLOM 20 APR 81
- J. BRANGON. LANINAVIACENG COM FONE CON BYWN R. COOKE, FWS AND G. 23 APR 81
- FONECON BIWN C. ORAVETZ, NATIONAL MARINE FISHERIES SER AND R. JARVIS . LANTNAVFACENGUOM -21 APR 81
- FONE CON BYWN ANNE TAYLOR . NO DEPT NATURAL RESOURCES AND COMMUNITY I. DEVELOPMENT AND R. JARVIS, LANTNAVFACENGCOM 23 APR 81
- NAVAL OIL AND HAZ MATERIAL TECH ASSISTANCE DATA SYS (OHMIAUS) J.
- CG FMFLANT 082 05 0Z APR 81 (NOTAL) K.
- CG FYFLANT 2221242 APR 81 (NOTAL) L.
- IAW REF A. THE FOLLOWING ANALYSIS OF SUBJ SYSTEM IS PROVIDED. 1.
- THE SUBJECT SYSTEM IS DELINEATED BY REF B AND C. 2:
- POTENTIAL SPILL PARAMETERS AND SYSTEM SAFEGUARDS OUTLINED BY 3 . REF 8 AND C.

- 4. CONTINGENCY PLAN AS REQUESTED BY REF D PROVIDED BY REF L AND E AND FOLLOWING POINTS OF MAJOR CONSIDERALION:
  - FUEL WILL BE PUMPEU DURING HOURS OF DAYLIGHT.

PAGE U3 RULYSGG7465 UNCLAS

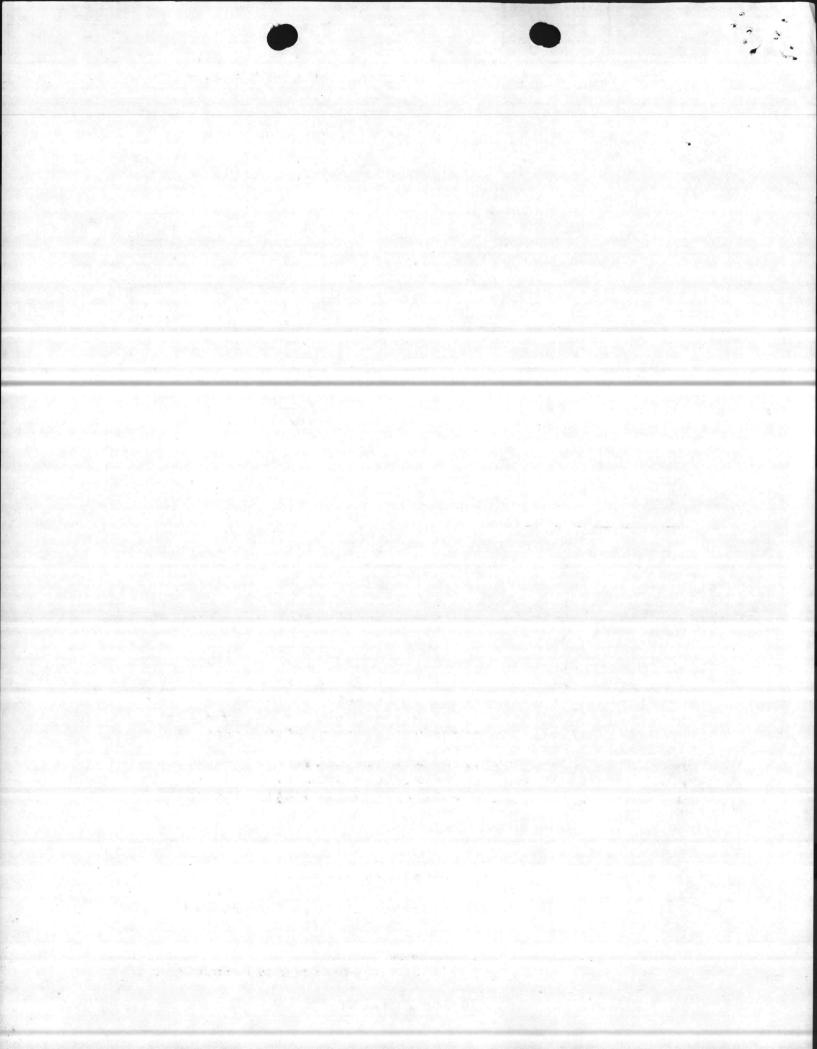
SYSTEM WILL BE UNDER OBSERVATION BY WALKING PATROL ASHORE

ROUTINE

REPLATEU PER YOUR KEU \* UNCLASS1 F1 LU \*

241850 Z apr 81

502 APR



ROUTISE

AND BY BOAT ANDIOR HELOCOPTER SEAWARD.

C. POSITIVE COMMUNICATIONS WILL BE MAINTAINED. ANY COMMUNICA-TION INTERRUPTION WILL BE CONSTURRED A FUEL SPILLAGE AND PUMPING WILL ar STOPPEU.

T. PRIOR TO FUEL PUMPING OPS THE AAETS IS SUBJ TO TWO SEPARATE ATR PRESSURE TESTS TO ENSURE SYS INTEGRITY. A PRE-SAIL CHECK AND

A CHECK IMMEDIATELY PRIOR TO PUMPING FUEL.

E. PRE-LOADED IN A LARC PATROLLING THE HOSE WILL BE A DESIGNA-TED AMOUNT OF 3M TYPE 270 SORBENT BOOM . 600 FECT OF THES GOOM WILL BE AVAILIBLE FOR EXEPCISE SOLLO SHIELD 81. UPON DISCOVERY OF A SPILL THIS BOOM WILL BE APPROPRIATELY DEPLOYED TO RESTRICT FUEL DISPERSAL.

F. SOU FEET OF ADSORBENT MATTING WILL ALSO BE AVAILABLE. I HIS MATERIAL IS USED TO ABSORB THE FUEL BEING CONTAINED BY THE BOOM. THE MATTING WOULD BE RETRIEVED FROM THE WATER AND APPROPRIATELY. DISPOSED OF.

G. HASED ON PREVIOUS EXPERIENCE WITH THESE SYSTEMS IN PAST EX-ERCISES IT IS EXPECTED THAT THOROUGH LESTS OF SYSTEMS INTERMETY PRIOR TO PUMPING FUEL: THE CONDUCT OF PHYSICAL PREVENTALIVE MEASURES SUCH AS BOAT ARBIOR HELD PATROLS: THE ESTABLISHMENT OF POSITIVE

PAGE 84 PULYSGOT465 UNCLAS COMMUNICATIONS BETWEEN THE PUMPING SHIP, BOATS, AND SHORE: AND THE PRESENCE OF CONTAINMENT/KECOVERY EQUIPMENT. WILL ADEQUATELY ENSURE PROTECTION OF THE ENVIRONMENT.

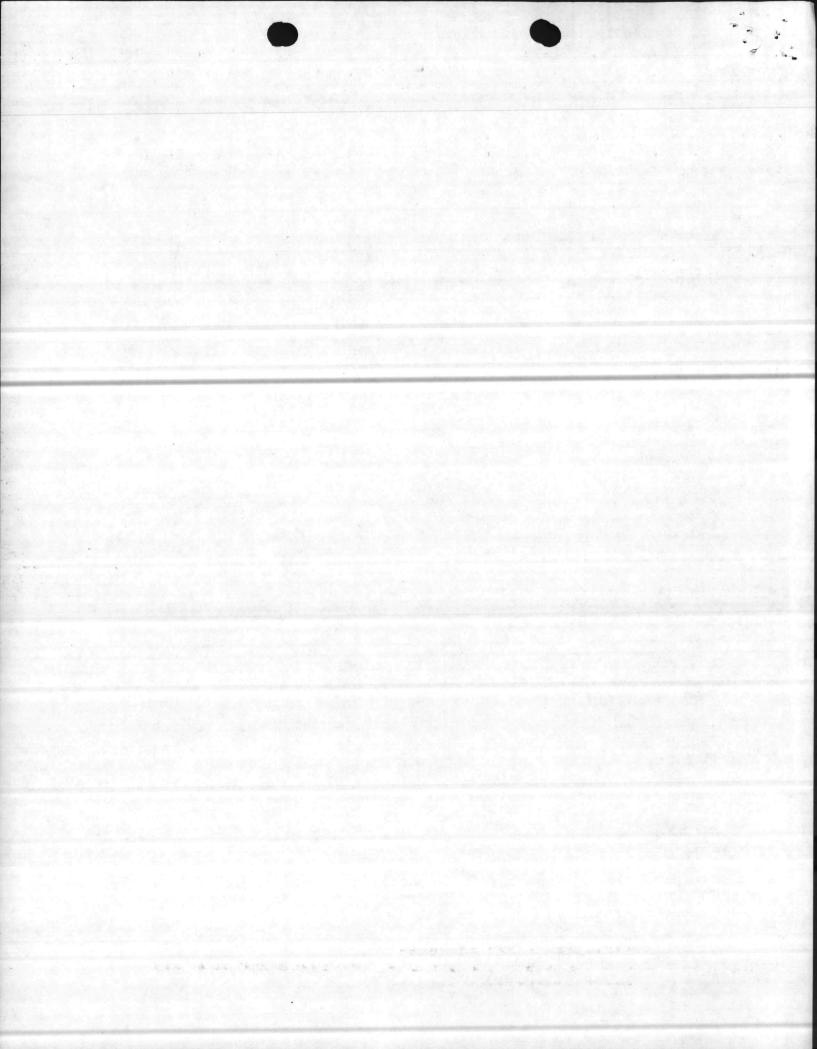
INFORMAL ENDANGERED SPECIES CONSULTATION HAS BEEN ACCOMPLISHED WITH U.S. FISH AND WILLLIFE SERVICE (REF + AND 6). TWS RECOMMENUS THAT EVERY REASONABLE MEASURE BE TAKEN TO AVOID VEGETATION AND WET-LAND AREAS. SUBJ SYSTEM SHOULD UTILIZE EXISTING ROADS. PAIRS. CLEARINGS WHEREVER POSSIBLE. ALL REF TO WILDLIFE IN SUBJ PLA GERMANE 6. INFORMAL ENDANGER SPECIES CONS HAS BEEN ACCOMPLISHED WITH NATIONAL MARINE FISHERIES (REF. H). ALL RECOMMENUATIONS PARA 6 GERMANE .

- 7. INFORMAL CONSULTATION HAS BEEN ACCOMPLISHED WITH NO DEPT NATURAL RESOURCES AND COMMUNITY DEVELOPMENT (NCUNK) (REF 1) NO UNK EXPRESSED CONCERN OVER POSSIBLE OIL SPILL AND RECOMMENUS THAT WATER DE USEU WITH SUBJ SYSTEM. FORMAL LTR NEUNR TO CINCLANTELT IS FORTHOUMING. 8. THE FOLLOWING POINTS: AS DISCUSSED IN REF. J. WERE CONSIDERED IN MAKING THE SUBJ EVALUATION:
  - A. CHEMICAL FORMULA: MIXTURE OF HYDROCARBONS.
  - E. SPECIES MIXTURE: SPECIALLY REFINED KEROSINE.
  - C. FLAMMABILITY: COMBUSTION WITH HEATING MODERATE HAZARU.

PAGE 05 RULYSEG1465 UNCLAS

- D. EXPOSIVENESS: STABLE.
- E. POIENTIAL FOR ACCUMULATION: NEGATIVE
- FOOD CHAIN CONCENTRATION POTENTIAL: NEGATIVE F.
- 6. MAJOR SPECIES THREATENED: WATERFOWL AND AQUATIC LIFE.
  - ACUTE HAZARU LEVEL: COATING ACTION OF OILS CAN DESTORY WATER

KEPEATEU PER YOUR REQ \* UNCLASSIFIEU\* 



POUTINE

REPEATED PER YOUR RED

BIROS. PLAMKTON. ALGAE AND FISHES.

- I. PER OF HAZARD TO PUBLIC HEALTH: WILL CAUSE TASTE AND OUR PROPERS BEFORE REACHING TOXIC LEVELS.
  - J. AIR FOLLUTION: NONE.
- 9. IN CONCLUSION, THIS COMMAND HAS EVALUATED THE INFO AND DATA PROVIDED BY PEF A THRU L. AND IT IS CONSIDERED THAT THE POICNITAL FOR SIGNIFICANT ENVIRONMENTAL HARM IS MINIMAL. IF THE SYSTEM IS PROPERLY INSTALLED. TESTED, AND MONITORED. AND IF NECESSARY, SPILLS ARE CONTAINED AND RECOVERED IMMEDIATELY.

9 T

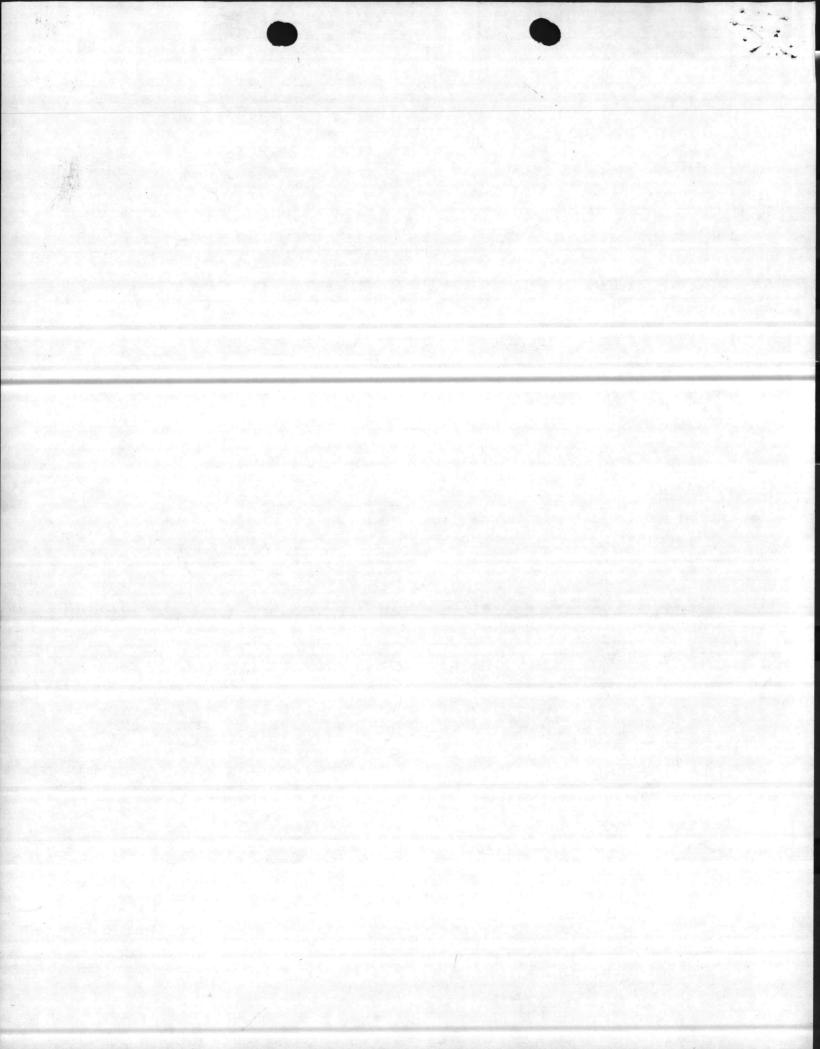
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INFO: FAC, COMP, PWO /14

ROUTINE

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REPEATED PER YOUR REQ



PRIORITY

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R (R) 151300Z APR 81

FM CINCLANTFLT NORFOLK VA

TO RULYSHHILANTNAVFACENGCOM NORFOLK VA

INFO RUEOLFA/CG FMFLANT

RULYOWA/CG FOURTH MAB

RUEBDOB/CG SECOND FSSG

RUEOLFF/CG II MAF

RUEBDOA/CG MCB CAMP LEJEUNE NC:

COMM NOTE: DIST. AS REC WILL SVC UPON REQ. RULYVKA/COMPHIBGRU TWO

BT

UNCLAS //N11000//

SUBJ: PRELIMINARY ENVIRONMENTAL ASSESSMENT (HEA) UPDATE

CG FMF LANT 0820502 APR 81 (NOTAL)

LANTNAVFACENGCOM L.TR COUE 203E5:RLJ 11000+ SER C-4 OF 3 MAR 81 (NOTAL)

C. CG FOURTH MAB 0721002 APR 81 (NOTAL)

D. BSSG FOUR 032153Z APR 81 (NOTAL)

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT LTR OF 7 APR 1981 (NOTAL)

REF A IS A REQUEST TO AMENU SOLID SHIELD 81 (SS-81) PEA

PAGE 02 RUCBSG67590 UNCLAS

SUBMITTED BY REF B. THE AMENDMENT IS TO DOCUMENT USE OF AMPHIBIOUS ASSAULT FUEL SYSTEM (AAFS). REFS C AND D GERMANE. REF E EXPRESSES CONCERN OVER POTENTIAL ADVERSE IMPACT AND WILL BE FORWARDED BY SEPARATE CORRESPONDENCE.

2. REQUEST REF B BE AMENDED AND COORDINATED WITH APPROPRIALE FEDERAL. STATE. AND LOCAL AGENCIES BY 28 APR TO ALLOW USE OF AAFS. FUNDS WILL BE PROVIDED AS NECESSARY.

3. REQUEST MSG ON INITIAL APPRAISAL OF INCLUDING AAFS IN THE PEA AND OF POTENTIAL IMPACT ON SOLID SHIELD EXERCISE.

4. TH IS OS A CINCLANT/CINCLANTELT COORDINATED MESSAGE.

BT .

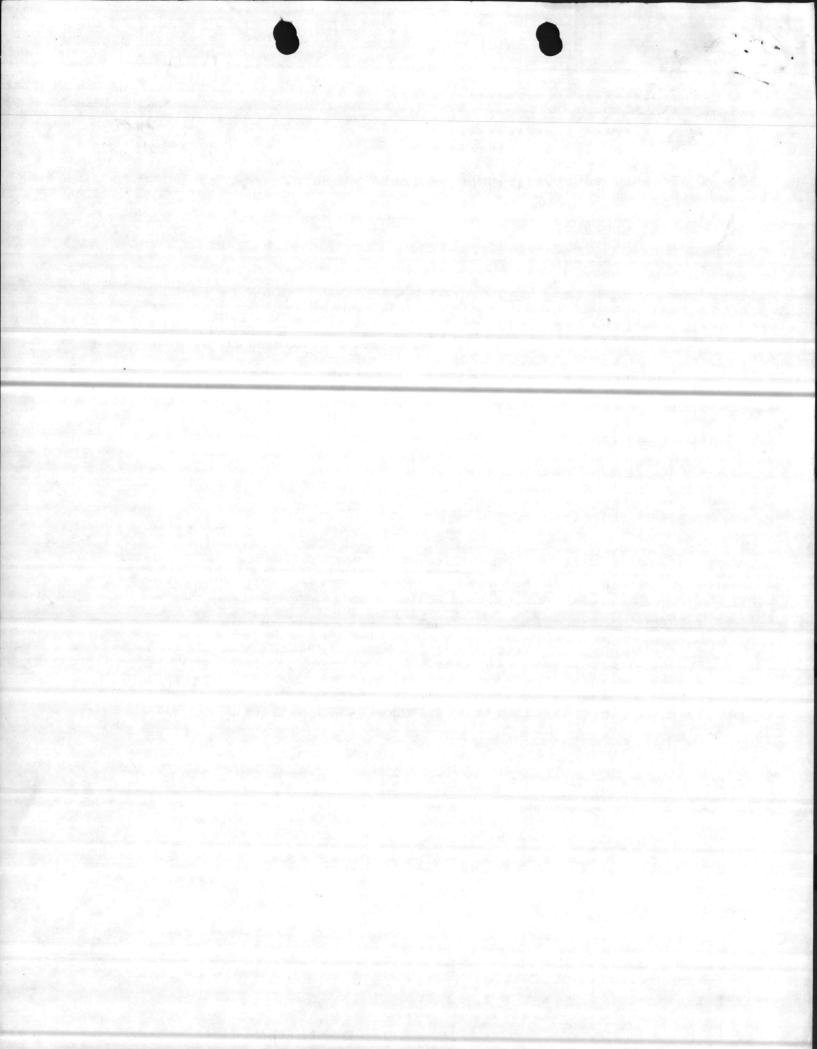
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INFO: FAC, COMP, MAIN, PWO, DOSET/44

PRIORITY

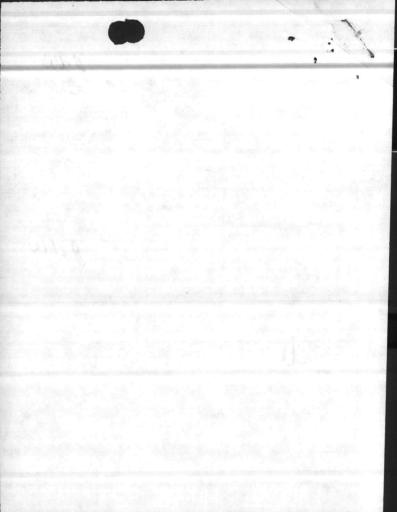
1513002 apr 81



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### ASSISTANT CHIEF OF STAFF, FACILITIES HEADQUARTERS, MARINE CORPS BASE

DATE 28 Opr 81

TO:

BASE MAINT O

PUBLIC WORKS O

COMM-ELECT O

DIR, QUARTERS & HOUSING

DIR, BOQ/BSQ

BASE FIRE CHIEF

MOTOR TRANSPORT O

ATTN: Mr. Elston

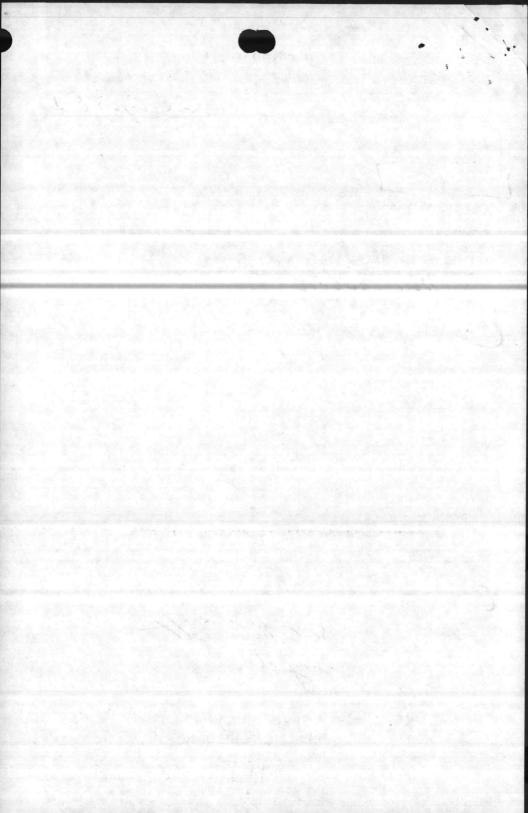
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St. E. Srewitt Sty dir

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Jil D. F&A O.

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PT UU3 68

Maint NCO Sight d by Secretary.

RULYVKA/COMPHIBGRU INO ---

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RUFB DOE/ US SECOND FS SO

RUEBPOAZOS MCB CAMP LEJEUNE NO

UNICLAS // NO 47 10 //

SUBJ: POEL INTHARY ENVIRONMENTAL ASSESSMENT (PEA) UPUALE

A. CS. FMFL ANT 22 21 24 Z APR 81

8. COMPHIB GRU TWO 22 22 33 Z APK 81

C. CG MC CAMP LEJEUNE NC 2322212 APR 81

1. RFF A PPOVIDED PEA UPUATE FOR PLAN TO USE AAFS DURING SOLID SHIELD 81. DUE TO LACK OF FORCE ASSETS TO CONTAIN A POSSIBLE FUEL SPILL IN THE INTRA COASTAL WATERWAY THE PLAN IS MOUIFIED AS FOLLOWS:

PAGE. 02 RULSSG G4 226 UNCLAS

A. FUEL WILL NOT BE PUMPED ACROSS THE INTRACOASTAL WATER NOR WILL A TRANSFER LINE DE LAYED ACROSS IT.

B. INSTEAD. FUEL WILL BE TRANSFERRED FROM USS NEWPORT (LST-1179) TO THE SHORE IAN THE PLAN CONTAINED IN KEF B. THE MARINE 6 INCH TRANSFER LINE WILL JOIN THE NAVY PIPALINE AT THE HIGH WATER LINE Y-GATE AMO FUEL WILL BE PUMPEU TO 3,20,000 GAL BLAUDERS LUCATED ON THE INEAND SIDE OF THE DUNES VIC UIM GRIU COORDINATES 898259. In E MARINE TRAMSFER LINE IS EXPECTED TO BE 1.000-2.000 METERS IN LENGTH KUNNING SOUTH FROM THE BLAWLER SILE TO THE Y-GALL. A MAXIMUM OF 60 ... UI GAL FUEL WILL BE PUMPED. DISTRIBUTION ASHORE WILL DE VIA REFUELER TRUCKS .

C. CONTINGENCY PLAN IN CASE OF A POSSIBLE LAND SPILL.

(1) FACH FUEL BLAWER WILL BE SURROUNDED BY AN EARTH BERM 10 CONTAIN ANY SPILLAGE. AN EXTERNAL SKIN WILL BE POSITIONED UNDER EACH BLADDER TO PREVENT PUNCTURE.

(2) THE MARINE TRANSFER LINE WILL ALSO HAVE BERMS ALONG EACH STOF OF THE LINE AND AT THE GATES.

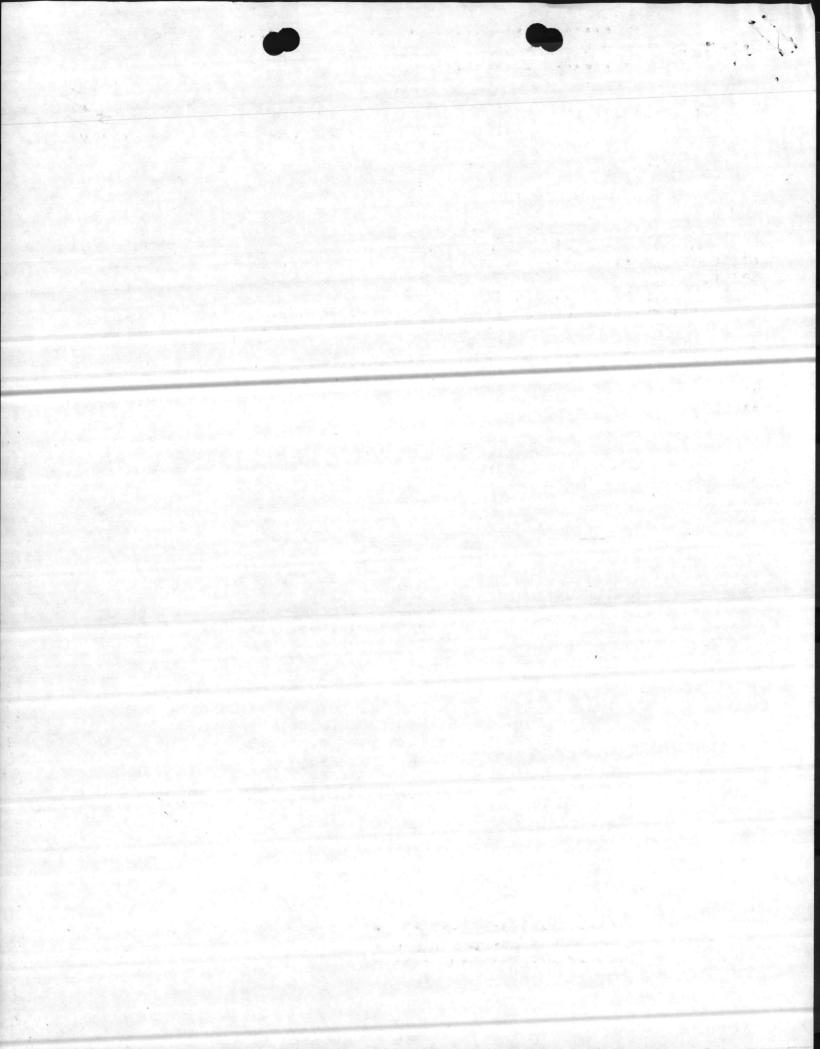
(3) A 40-MAN WORKING PARTY WILL DE OF SCENE WITH SHOVELS AND STRAW FOR IMMEDIATE REACTION. ALSO. AN ENDR DUZER WILL BE UN SCENE IN CASE FARTH MOVEMENT 15 REUR .

PAGE 03 PULSSE 64 226 UN CLAS

(4) FOOT PATROLS WILL MOVE ALONG THE MAKING TRANSFER LINE FOR VISUAL DESERVATION.

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(5) POSITIVE COMMUNICATIONS WILL BE MAINTAINED AT A.L TIMES. ANY COMMUNICATION INTERRUPTION WILL BE CONSIDERED A FUEL PILLAGE AND PUMPING WILL EL STOPPEJ.

(6) FUEL WILL ONLY BE PUMPEU DURING HOURS OF BAYLIG T.

(7) PPICR TO FUEL PUMPING OPS. THE MALE'S IS SUBJ 10 TWO SEPA-RATE ATR PRESSURE TESTS TO ENSURE SYS INTEGRATY. A PRE-S IL LHECK AND A CHECK IMPEUTATELY PRIOR TO PUMPING FUEL.

(B) SEAWARD CONTINGENCY PLAN IS CONTAINED IN REF H.

(9) TAN PER C AND TELCON BETWEEN COL MILLILE (MCB CITAL) AND LTCOL MILLER (FMFLANJ) MCB CENC CAN SPI THIS PLAN IN CASE OF A LAND SPILL.

C . POINTS OF CONTACT .

(1) MC - CAMP LEJEUNE . MR. J. WOO TEN . PAV 484-5003

(2) 8559-4. LTCOL U. J. O.CONNER. AV 484-1841/1913

D . FOR CG FOURTH MAD.

(1) REQUEST TAKE ACTION TO IMPLEMENT ABOVE ALTERNATE PLAN.

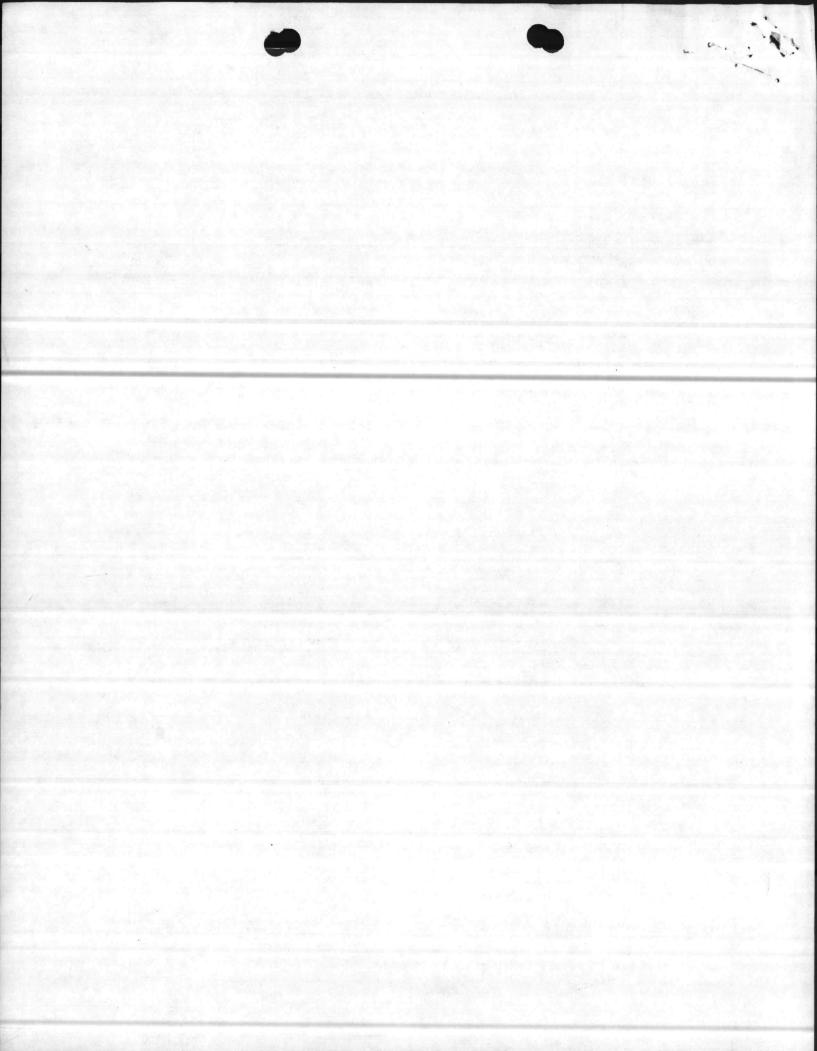
(2) CONDUCT CLOSE COORDILN WITH MED CLNC.

#4226

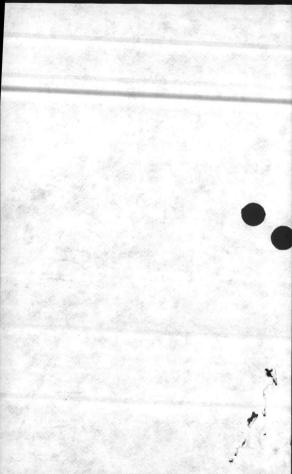
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PTTUZYUW RULSSGG9078 1101841-UUUU--RUEBUOA RUEBUOB. ZNR UUUUU P 201841Z APR 81 FM CG FMFLANT TO RUCBSAA/CINCLANTELT NORFOLK VA RULYSHH/LANTNAVFACENGCOM NORFOLK VA. INFO RUEBNSA/CCGDFIVE PORTSMOUTH VA RULYOWA/CG FOURTH MAB RUEBDOB/CG SECOND FSSG RUEBDOA/CG MCB CAMP LEJEUNE NC RUEBNSA/COGARD MSO WILMINGTON NC RULYVKA/COMPHIEGRU TWO

RUFADOB/HSSG FOUR

RT

PRIORITY

UNCLAS //N11000//

SUBJ: PRELIMINARY ENVIRONMENTAL ASSESSMENT (HEA) UPUATE

A. CINCLANTELT 151300Z APR 81

B. COGARU MSO WILMINGTON NC 1619UUZ APR 81

1. REF (A) REQ AMEND SOLID SHILLD 81 (SS-81) FOR USE OF AMPHIBIOUS ASSAULT FUEL SYSTEM (AAFS). REF (B) AGREES TO PROPOSEU CLOSURE I IMES OF INTERCOASTAL WATERWAY AND REQUEST CONTINGENCY PLANNING AND LISTING FOUTPMENT AND PERSONNEL TO BE STAGED ON SCENE TO RESPOND TO POSSIBLE

PAGE 02 RULSSE69078 UNCLAS

POLLUTION INCIDENT.

2. FOR LANTNAVFACENGOM: REQ REQUIREMENT CONTAINED IN PARA 12) OF REF (B) BE INCLUDED IN MSG ON INITIAL APPRAISAL REF (A). 3. REQ REQUIRED INFORMATION NLT 24 APR 81 DUE TO TIME CONTRAINTS AS INDICATED REF (8).

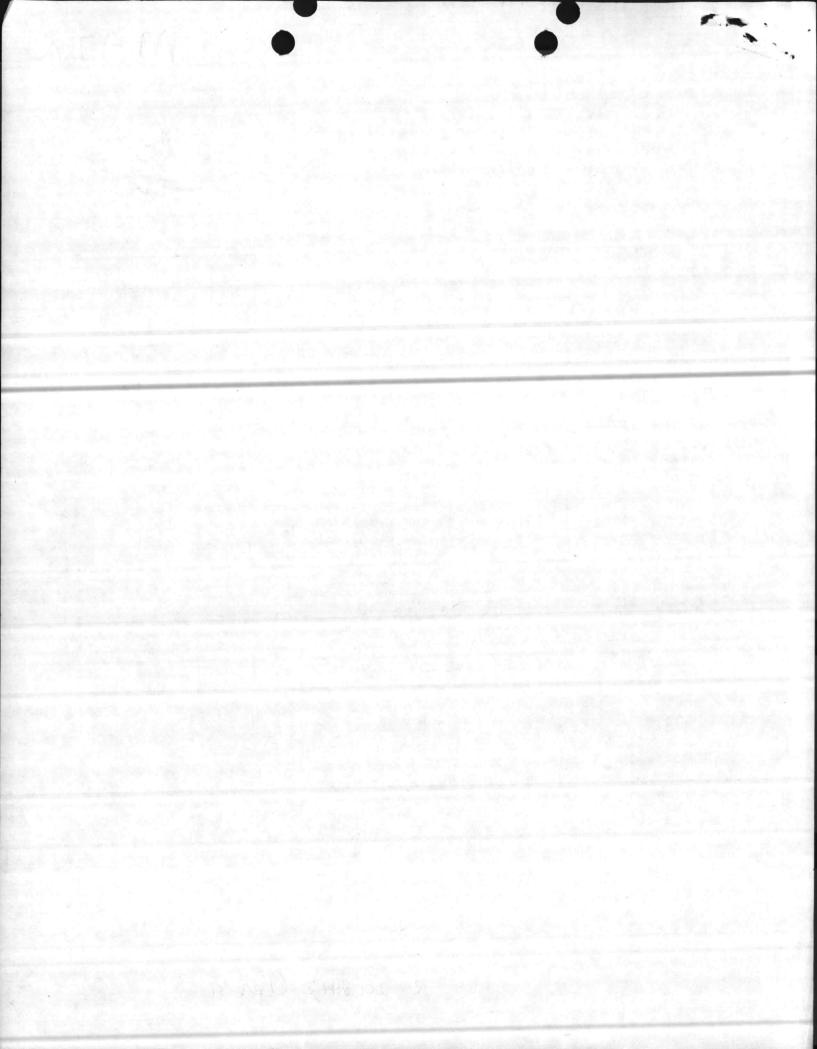
4. POC THIS HEADQUARTERS LTCOL DAVE MILLER AV-690-6636/6638.

RT

INFO: FAC, COMP, MAIN, PWO, DOSET/32 NNNN

R 2018412 apr 81

UNCLASSIFIED \* PRIORITY



PTTUZYUW RUEBDOA 8 640 113 13 00-UUUU - -RUOB SAA RUEACMO RUEBDOB RUEBDOD RUEOLFA RULYOWA RULYSHH RULYVKA. ZNR UUUUU P 23222 1Z APR 81 FM OG MOB CAMP LEJEUNE NO . TO RUCE SAA/CINCLANTFLT NORFOLK VA RMO INFO RUEACMC/CMC WASHINGTON DC AUE JABMO RUEOLFA/CG FMFLANT A dW MREAD RULYSHH/LANTNAVFACENGCOM NORFOLK VA RUEBDOD /OG SECONO MARDIV Open D. RUEBDOB/OG SECOND FSSG M&R D. RULYVKA/COMPHIBGRU TWO Tele D. RULYOWA/CG FOURTH MAB RUEBDOB BSSC FOUR BT

UNCLAS //N 11030//

CMC FOR CODE LFF-2/LANTNAVFACENGCOM FOR CODE 203

SUBJ: PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) FOR SOLID SHIELD 81

OG SECOND FSSG 102023Z MAR 81 (NOTAL)

COGARD MSO WILMINGTON NC 261930Z MAR 81 (NOTAL)

BSSG FOUR 232 153Z APR 81 (NOTAL)

CINCLANTFLT 15 13 00Z APR 81 (NOTAL)

PAGE 02 RUEBDOA 8640 UNCLAS

COG ARD MSO WILMINGTON NC 1619 20Z APR 81 (NOTAL)

OG FMFLANT 20184 1Z APR 81 (NOTAL)

LANTNAVFACENG COM 201950Z APR 81 (NOTAL)

OG FMFLANT 20184 1Z APR 81 (NOTAL) CG FMFLANT 222 124Z APR 81 (NOTAL) 1.

J. MCO P 11320. 8A (NOTAL)
K. MOBUL 6280 OF 9 SEP 80 (NOTAL)

1. REFS A THRU I DISCUSS CLOSURE OF INTRACOASTAL WATERWAY AND FOR PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) INFORMATION INCIDENT TO THE MOVEMENT OF BULK FUEL PRODUCTS FROM SHIP TO SHORE DURING SOLID SHIELD 81. AS THE HOST FOR SOLID SHIELD 81, THIS COMMAND REQUIRED TO REVIEW AND EVALUATE ENVIRONMENTAL ASSESSMENTS.

2. MCB CAMLEU, HAS CAPABILITY TO RESPOND TO SMALL SIZED PETRO-LEUM PRODUCT SPILLS ON PONDS, SMALL STREAMS AND ON LAND. THERE IS INSUFFICIENT SPILL PREVENTION /COUNTERMEASURE EQUIPMENT OR PER SONNEL ON BOARD CAMLED TO ADEQUATELY RESPOND TO A HIGH PRESSURE AMPHIB ASSLT FUEL SYSTEM (AAFS) LINE BREAK SEASIDE OR IN THE INTRACOASTAL WATERWAY. SUCH ASSETS MUST BE MADE AVAILABLE THRU CIVILIAN CONTRACT OR OTHER MILITARY SOURCES.

PAGE 03 RUEBDOA 8 640 UNCLAS

3. IT SHOULD BE NOTED THAT DIRING OPERATIONAL EXERCISES IN RECENT YEARS, SIGNIFICANT PET OLEUM PRODUCT SPILLS WERE EX-PER IENCED AT CAMLEJ. THUS, THIS CMD, THOUGH SENSITIVE TO THE REQUIREMENT FOR REALISTIC TRN: , IS ALSO SENSITIVE TO THE NECESSITY OF MINIMIZING THE POSSIBILITY OF DAMAGE TO THE LOCAL ENVIRONMENT. 4. IN THE INTEREST OF TIME, THIS CMO IS PREPARED TO PROVIDE TECH-NICAL ASSISTANCE IN THE PREPARED TO PROVIDE TECH-EVALUATION OF THE PEA IS REQUIRED IAW REF J, AS MODIFIED BY REF K. PRIOR TO START OF EXERCISE . BT

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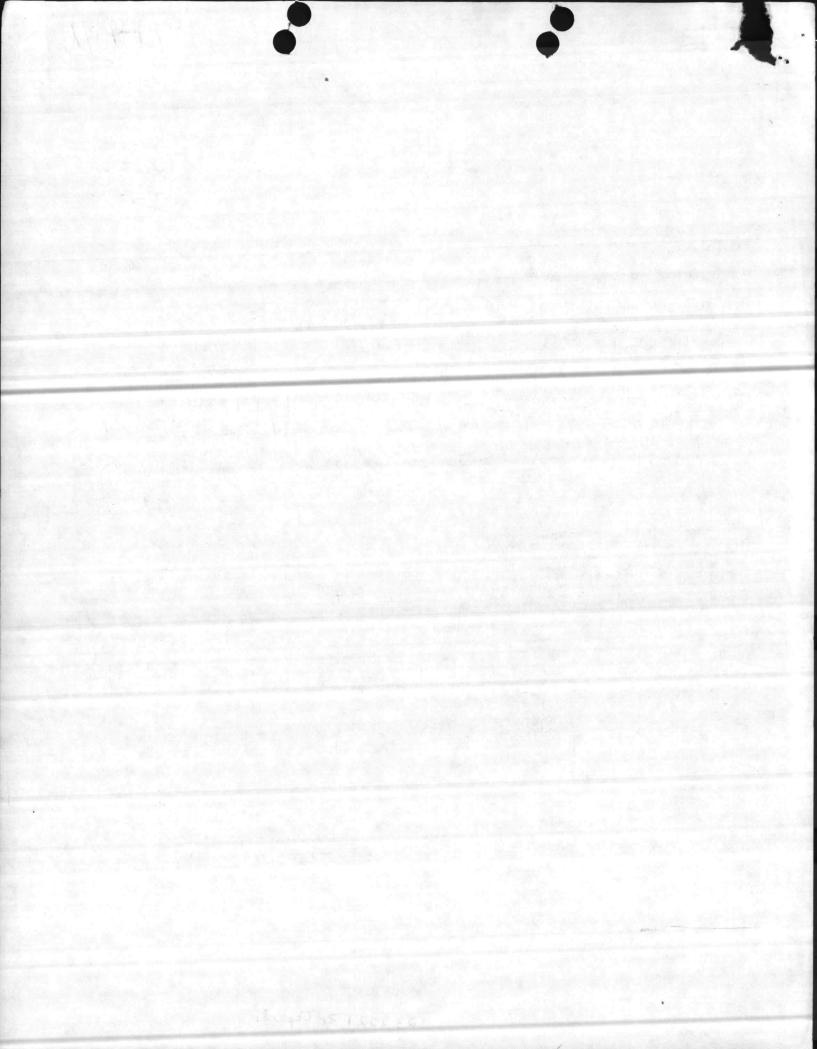
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REL: FRIDELL J.R. , COL, C/S

DIST: FAC, MAIN, TRNG

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MAIN/DDS/mp 6280 1 April 1981

Base Ecologist

Memorandum for the Record

Preparation of Environmental Impact Assessment, request for information

- Ref: (a) FONECON bywn Major Redmond, 4th Marine Amphibious Brigade and Mr. D. Sharpe, BMaintDept.
  - (b) CG 2d FSSG Msg 1020232 Mar 81
  - (c) MCBul 6280 of 9 Sept 1980
  - (d) MCO P11000.8A
  - 1. During reference (a), Major Redmond requested information regarding procedures and responsibilities for preparation of Environmental Impact Assessment for the action described in reference (b). Major Redmond was advised that references (c) and (d) established policy and action of this magnitude and potential controversy (closing Intracoastal waterway) required concurrence (as a minimum) of the Headquarters, U. S. Marine Corps Environmental Impact Review Board.
  - 2. Major Redmond was advised that during discussions with Paul Hubbell, Headquarters. U. S. Marine Corps, (Code LFF-2) several months ago, this office learned the assessment would be developed at Norfolk. Major Redmond was advised to contact Mr. Hubbell, Headquarters, U. S. Marine Corps (Code LFF-2) and was given Mr. Hubbell's telephone number.

D. D. SHARPE

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MAIN/DDS/mp 6280 DATE: 1 April 1981

FROM Base Ecologist

TO Memorandum for the Record

SUBJ Preparation of Environmental Impact Assessment, request for information

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DD Sharpe D. D. SHARPE

TELEPHONE TO THE PARTY.

#### BASE MAINTENANCE DEPARTMENT Marine Corps Base Camp Lejeune, North Carolina 28542

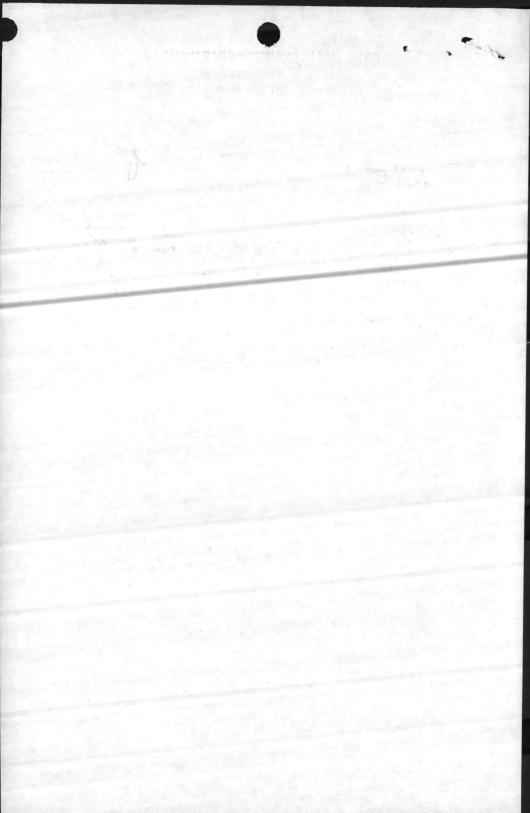
Date:

From: Base Maintenance Officer

TO: NRED

Subj:

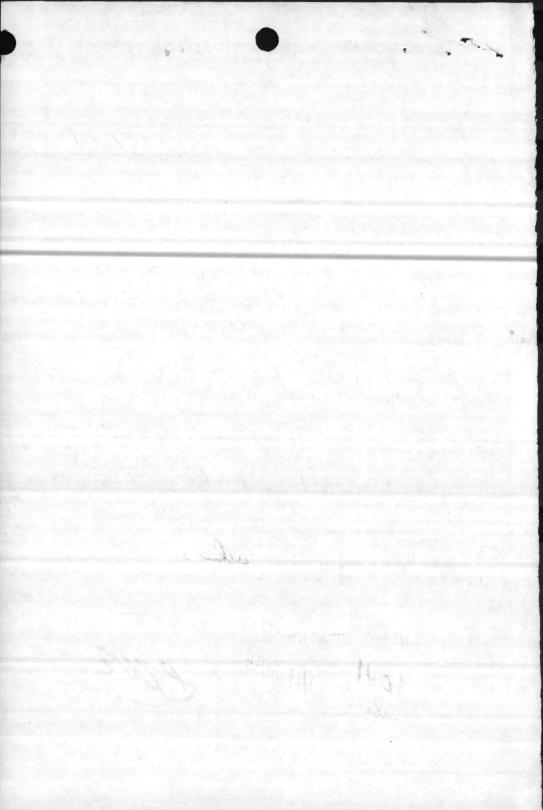
Subjection for the Better Roll on to et for the record.



NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION BASE MAINTENANCE DEPARTMENT MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542 3 april 8/ From: Director, NREA Division To: 1. attached outlines NREAD'S Subj: involvement with the EIA for Solid Shuld. Il understand people. are beginning to point fingers because the oil transfer operation appointly not been addressed in the EIA. I have any details.

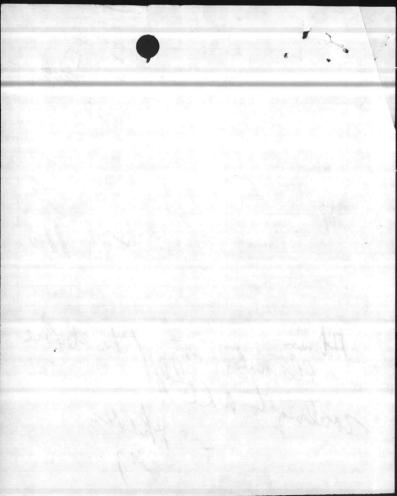
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FAC ROUTING ACTION INFO COA Maint NCO 44 63 Secretary 40 43 43 4LC

UNCLAS // N11011//

SUBJ: PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA) UPDATE

A. CINCLANTELT 1513002 APR 81

COGARD MSO WILMINGTON NC 161900Z APR 81

REF 'A TASKED THIS COMMAND WITH AMENDING THE SOLID SHIELD 81 (SS-81) PE A TO INCLUDE USE OF AMPHIBIOUS ASSAULT FUEL SYSTEM (AAFS). AND COORDINATING WITH APPROPRIATE FEDERAL. STATE, AND LOCAL AGENCIES. 2. AS OF 20 APR 81. THIS COMMANU HAS BEEN UNABLE TO OBTAIN THE FOLLOWING INFORMATION WHICH IS ESSENTIAL TO OBTAINING NECESSARY TRONMENTAL APPROVALS:

PAGE 02 RULYSGG7695 UNCLAS

A. OPERATIONAL ANALYSES OF ALTERNATIVES ONE. PUMP FUEL. TWO. PUMP WATER. THREE. NO ACTION:

R. OPERATIONAL REPORTS FROM PREVIOUS DEPLOYMENT OF AAFS:

C. OIL SPILL CONTINGENCY PLAN AS REQUIRED BY REF B.

3. AS COG ARD WILMINGTON NC REQUIRES ITEM 1-C ABOVE NET 24 APRIL 81. BY REF B. AND IT IS ANTICIPATED THAT COGARD WILMINGTON WILL ALSO REQUIRE A COPY OF THE REVISED PEAR IT IS REQUESTED THAT THE ABOVE INFO BE PROVIDED TO THIS COMMAND. BY MSG. NLT COD 22 APR 81. BT

#7695

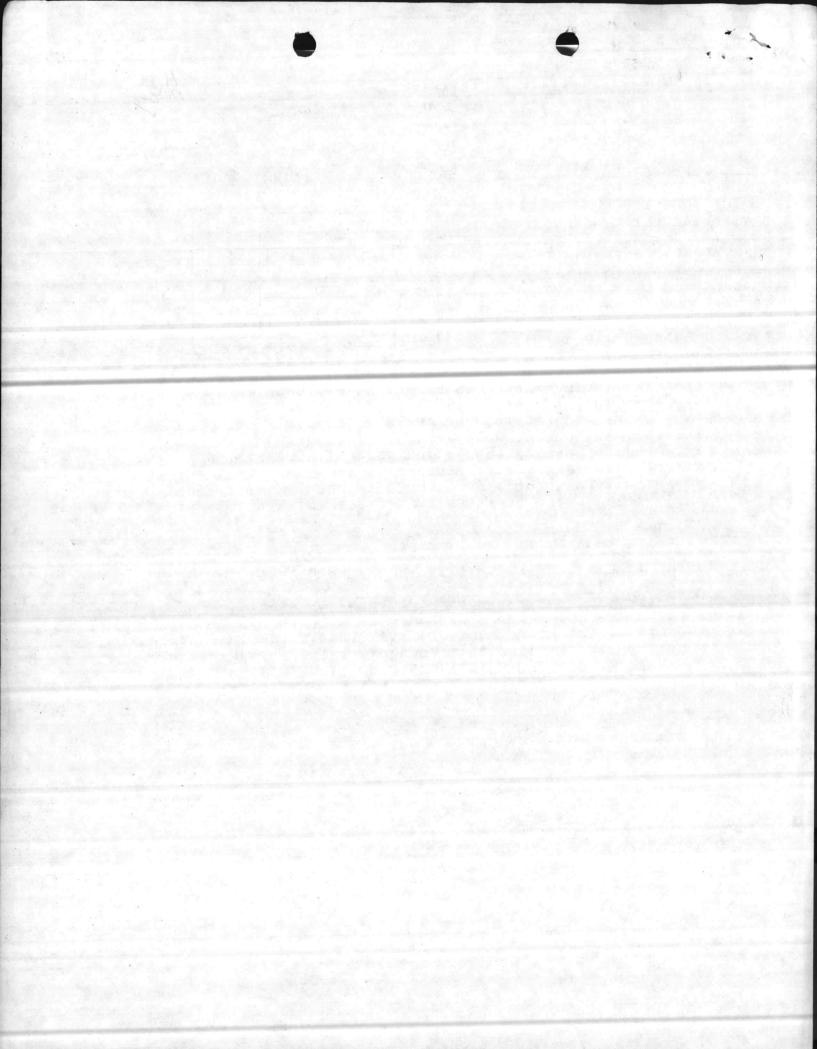
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INFO: FAC, COMP, PWO

OURTH MAB

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FM COMPHISGPU TWO

TO RUEDLFA/CE FMFLANT INFO RUCBSAA/CINCLANTELT NORFOLK VA

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RUEBDOA/LG MCB CAMP LEJEUNE NC

RULYOWA/LG FOURTH MAB

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RULYSHH/LANTNAVF ACENGO OM NOR FOLK VA

UNCLAS //M11011//

SUBJ: PRELIMINARY ENVIRONMENTAL ASSESSMENT (PEA)

A. CINCLAMIFLE NORFOLK VA 2123572 APR 81

B. LANTNAVFACENG COM NORFOLK VA 201950Z APR 81

C. CG FOURTH MAB 072100Z APR 81 NOTAL

1. FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN RESPONDEND

TO REFS A AND D.

2. THE USN AMPHIB ASSAULT BULK FULL SYSTEM (AADFS) AND USMC AMPHIB ASSAULT FUEL SYSTEM (AAFS) WERE EMPLOYED IN TWO RECENT MAJORIEXERCISES, DISPLAY UELERMINATION 79 (SAROS BAY, TURKLY)

PAGE 02 RULYSGG3095 UNCLAS AND TEAM WORK SO (SURNAUALSORA - NORWAY) . TO PUMP FUEL FROM AMPHIB SHIPS TO SHORE STOKAGE SITES. NO OIL SPILLS OR AU-VERSE INCIDENTS WERE ENCOUNTERED IN EITHER EXERCISE. 3. PARA 8 PEF C CONTAINEU MAJOR CONSIDERATIONS CONCERNING SYSTEM EMPLOYMENT WHICH WILL BE FOLLOWED TO MINIMIZE THE KISK OF AN OIL SPILL. SHOULD A SPILL OCCUR THE FOLLOWING ASSETS WILL BE USED TO REDUCE / ELIMINATE THE FUEL FROM THE WATER.

A. PRE-LOADED IN A LARC PATROLLING THE HOSE WILL BE A DE-SIGNATED AMOUNT OF 3M TYPE 279 SORBENT BOOM. 600 FEET OF THIS BOOM WILL BE AVAILABLE FOR EXERCISE SOLID SHIELD BI. UPON DIS-COVERY OF AISPILL. THIS BOOM WILL BE APPROPRIATELY DEPLOYED TO RESTRICT FULL DISPERSAL.

B. 600 FEET OF ADSORBENT MATTING WILL ALSO BE AVAILABLES. THIS MATERIAL IS USED TO ABSORB THE FUEL BEING CONTAINED BY THE BOUM. THE PATTING WOULD BE KETKLIVED FROM THE WATER AND APPROPRIATELY DISPOSED OF.

4. BASED ON PREVIOUS EXPERIENCE WITH THESE SYSTEMS IN PAST EX-ERCISES: IT IS EXPECTED THAT THOROUGH TESTS OF SYSTEMS INTEGRITY PRIOR TO PUMPING FUEL: THE CONDUCT OF PHYSICAL PREVENTATIVE MEASURES SUCH AS BOAT AND/OR HELD PATROLS; THE ESTABLISHMENT

PAGE 03 RULYSGG3095 UNCLAS OF POSITIVE COMMUNICATIONS BETWEEN THE PUMPING SHIP, BOATS, AND SHORE: AND . THE PRESENCE OF CONTAINMENT/RECOVERY EQUIPVENT. WILL

ADEQUATELY ENSURE PROTECTION OF THE ENVIRONMENT. RT

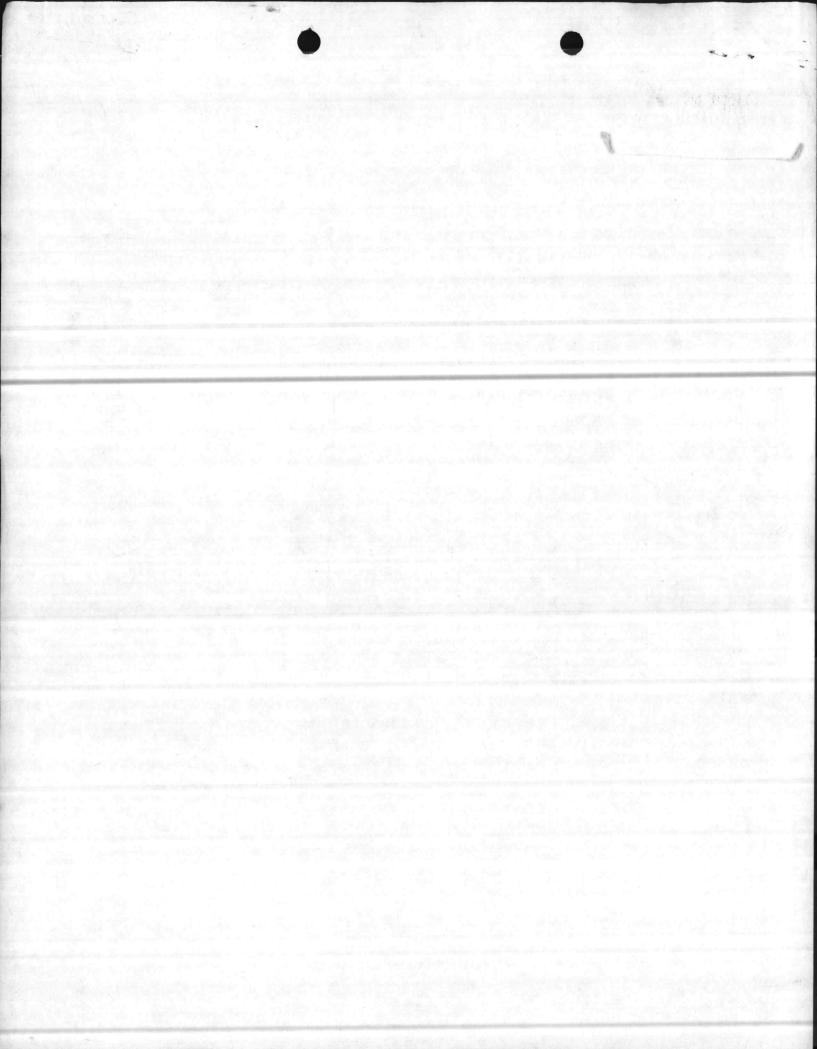
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INFO: FAC, COMP, PWO //34 FOURTH MAB

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# ASSISTANT CHIEF OF STAFF, FACILITIES HEADQUARTERS, MARINE CORPS BASE

DATE 13

TO:

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DIR, FAMILY HOUSING

DIR. UNACCOMPANIED PERS HSG

**BASE FIRE CHIEF** 

MOTOR TRANSPORT Q

ATTN: \_\_\_\_

1. Attached is forwarded for info/action.

2. Please initial, or comment, and return all papers to this office.

3. Your file copy

"LET'S THINK OF A FEW REASONS WHY IT CAN BE DONE"

Danny, Note of setures for file Julian 22 July 8) Tayloh, File

# Training-Actived Skall shield

# Memorandum

DATE: 15 MAY 81

FROM: RICK JARVIS, LANT NAVEACENG COM, CODE 203

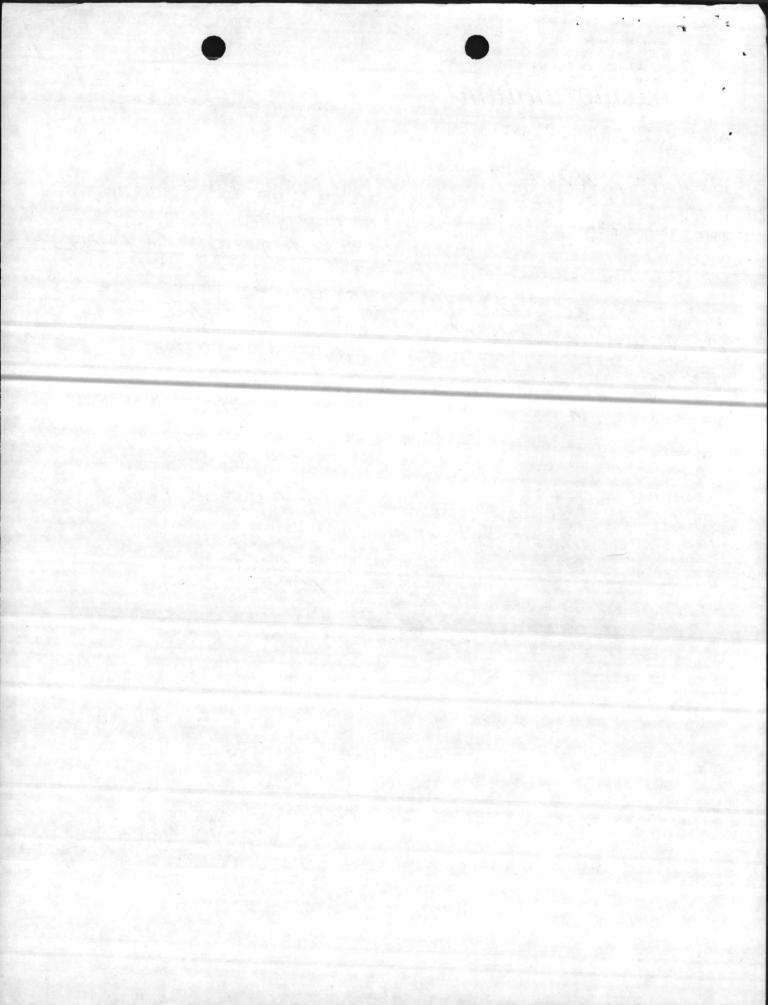
TO: Way. J. WARAPOTI

SUBJ: SS-81 PEA

Enclosed is a copy of the unclassified section of the PEA SS-81 for your reference and Peview.

We do not hold pride of authorship ... feel free to critique and comment. We are atways tring to improve our product and gladly receive all comments.

I consider my trip to Camp Lejeune to have been extremely valuable and rewarding. Thanks again for the hospitality I found through out the Ban. YIOZ SARVIS



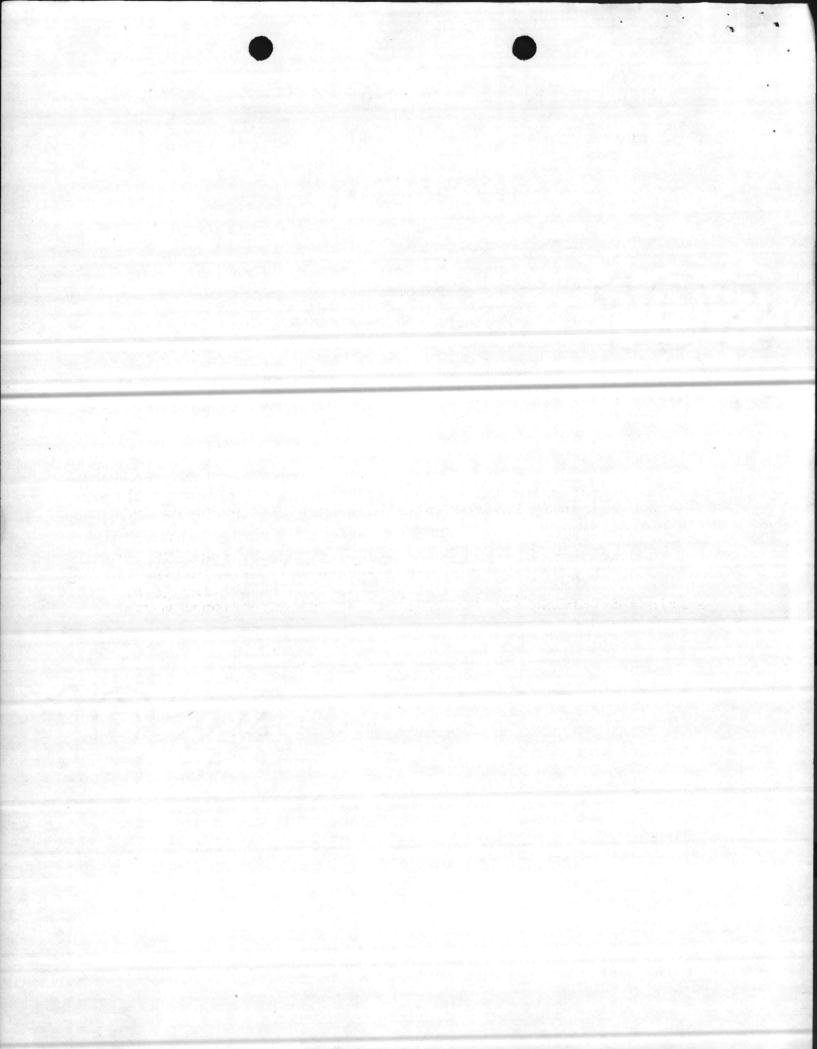
(Unclassified upon removal of Annex A)

PRELIMINARY
ENVIRONMENTAL ASSESSMENT

JOINT EXERCISE
SOLID SHIELD 81

FEBRUARY 1981

Prepared by the Commander in Chief Atlantic, in accordance with Department of Defense Directive 6050.1 of 30 July 1979, in compliance with Section 102(2)(c) of the National Environmental Policy Act of 1969.



#### I. PURPOSE AND NEED

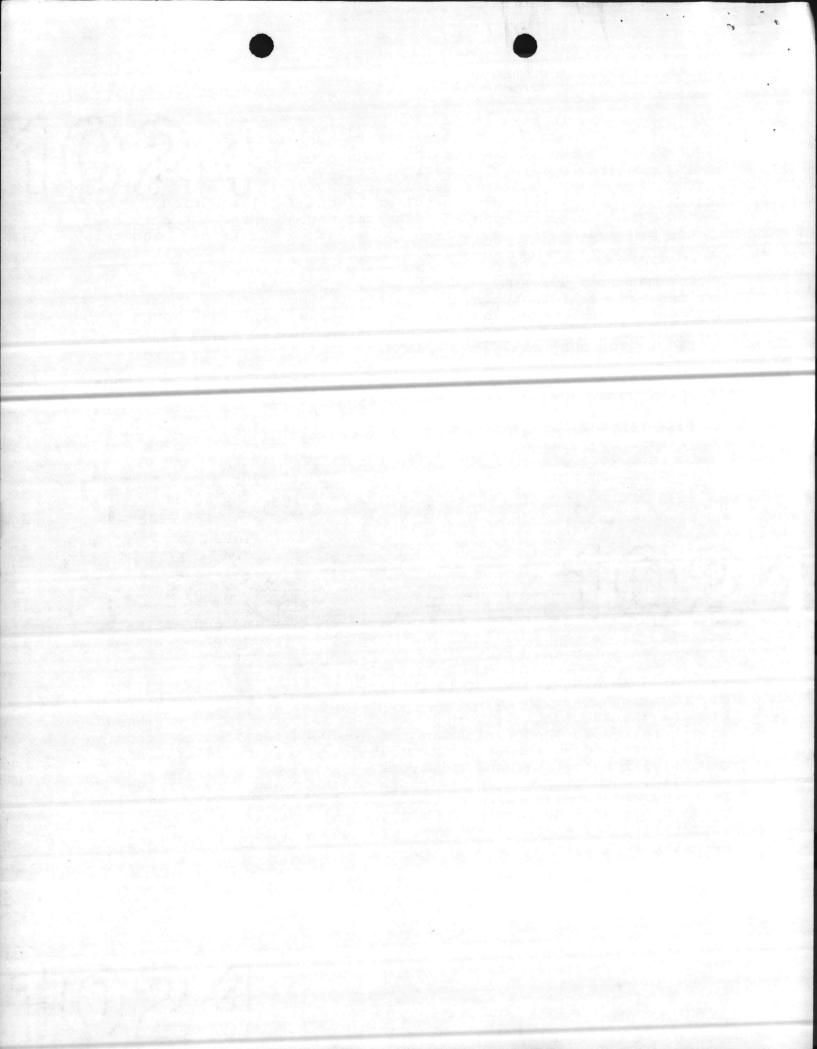
The proposed administrative action, Joint Exercise Solid Shield 81 (SS-81), is a Commander in Chief, Atlantic (CINCLANT) sponsored, Joint Training Exercise scheduled to be conducted during the spring of 1981 on military reservations in the southeastern United States, and other geographic areas of subordinate Commands that are under the operational control of CINCLANT. The action is designed to exercise selected organizations of component services in the procedures and tactics to be used in a mid to high intensity conflict.

Approximately 5,000 Army, 12,000 Navy, 2,000 Air Force, and 8,000 Marines may participate in the exercise. The exercise entails deployment, employment and redeployment of a Joint Task Force whose mission is to conduct operations similar to those anticipated in various contingency plans.

Solid Shield 81 is the fourteenth in a continuing series of annual Atlantic Command sponsored training exercises in this series, which were entitled Joint Exercise EXOTIC DANCER I through VI and SOLID SHIELD 74 through 80, have been conducted in the southeastern Carolinas, Georgia and/or Puerto Rico. Environmental Impact Statements were prepared and filed for EXOTIC DANCER V and VI which were conducted in North Carolina. Environmental Assessments have been prepared for the Solid Shield Exercise Series, 74 through 79 and a Preliminary Environmental Assessment was prepared for Solid Shield 80.

The primary purpose of SS-81 is to provide a simulated combat environment in which to train and evaluate all participating headquarters staff and component personnel in conducting joint operations involving air, land, fleet and unconventional warfare (UW). The exercise serves as a vehicle to exercise and evaluate existing plans and procedures and develop new procedures for the conduct of joint operations in a contingency situation.

The Solid Shield 81 concept is designed to exercise selected organizations of both actual and constructive forces in the procedures and tactics likely to be used in response to a contingency situation, where these organizations would be required to function as part of a joint force. An exercise directorate (Joint Control Group) will be established to direct, control and evaluate the exercise. Conventional forces, both friendly and agressor, and friendly unconventional forces will participate. An air campaign, parachute and/or helicopter assault, amphibious troop and/or supply landing, air/land reinforcement and related activity may take place or be simulated.



#### II. ALTERNATIVES INCLUDING THE PROPOSED EXERCISE

The decision to conduct an exercise rests on criteria/objectives which will determine the validity of the exercise. The primary decision criteria affecting the Solid Shield exercise is the need to maximize the achievement of the military training objectives while minimizing the environmental and economic costs, i.e., maximum training with minimum resource expenditures. Some considerations that enter into the decision to select a site for the exercise are:

Area accessibility by land, air and water.

Availability of physical resources to conduct the exercise.

Ecological considerations.

Economic factors, including budgetary constraints.

Force composition.

Geophysical factors, including meteorological, oceanographic and physiographic conditions.

Health and safety of personnel and equipment risks.

Integration of the exercise into the overall Department of Defense and component services, mission, training programs, and objectives.

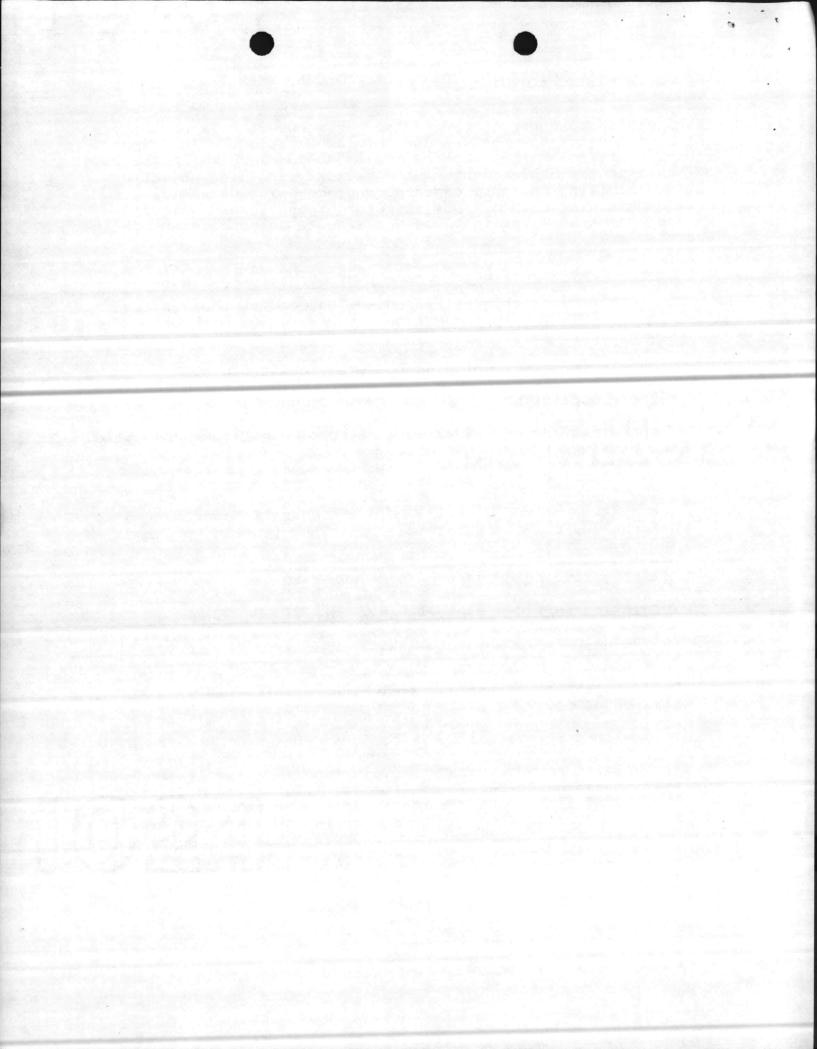
Military readiness posture of CINCLANT Forces.

Population/services capabilities.

Potential effects on non-military operations in the exercise area.

World political situation, including potential threats to the balance of power.

Once a preliminary evaluation is conducted based on the above factors, plus many other related factors, various associated decisions based on a comparative evaluation that involve both qualitative and quantitative preliminary information must be made. The locale and time frame alternatives for the exercise then becomes fairly well determined. Meanwhile, the relative availability of specific forces must be assessed to assure that the proposed exercise can be integrated into the annual exercise schedules of the various commands concerned. Exercise Solid



Shield 81 is being planned following the general outline above. A qualitative discussion of alternatives, as affected by the preceding constraints follows:

### A. Preferred Alternative

Elements of the Air Force, Army, Coast Guard, Marine Corps and Navy are programmed for participation in the training evolution. All phases of a contingency, including, but not limited to, such activities as those listed in Figure I-1, will be accomplished by command posts and maneuvering elements, or be simulated by the exercise control group. The Joint Control Group will be used to represent, when required, non-participating agencies and forces necessary for the realistic progression of exercise events, as well as enforce the rules of exercise play and safety.

Navy ship activities in national and international waters off the coast of Virginia, the Carolinas, and Georgia are anticipated. Navy ship activities may occur at other areas under the operational control of CINCLANT or his subordinate commanders. No unusual naval training activities are planned; and, thus, no unusual restrictions on the use of these waters as a result of the exercise are anticipated. The provisions of the U.S. Coast Guard Navigation applicable.

## Figure I-1, Training Objectives

Conduct of a campaign involving air, land, fleet, and unconventional forces

Airspace management

Personnel augmentation

Public Affairs

Coordination procedures for joint forces

Joint Unconventional Warfare Tactics (UW)

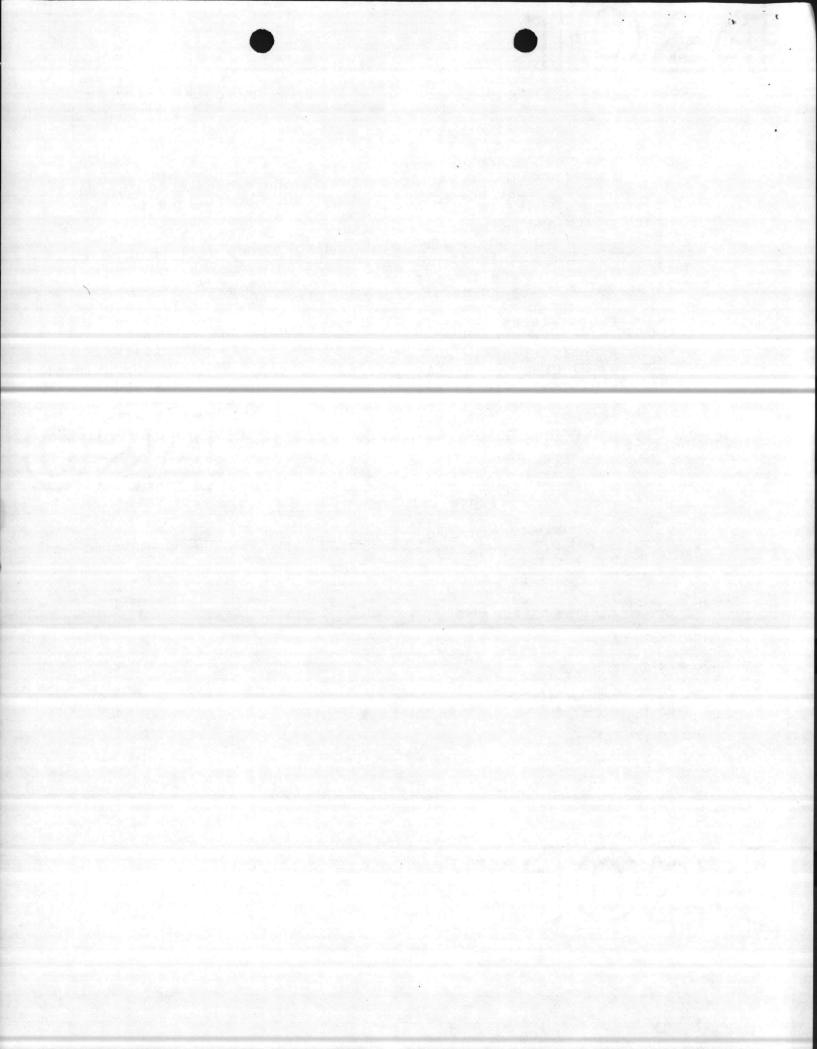
Nuclear Biological and Chemical Defense

Logistics support

Combat medicine

Intelligence

Psychological Operations (PSYOPS)



Laws of War

Air Control and Defense

Operations Security (OPSEC)

Communications Capabilities and Security

Signal Intelligence (SIGINT)

Electronic Warfare (EW)

Weather Support

Search and Rescue

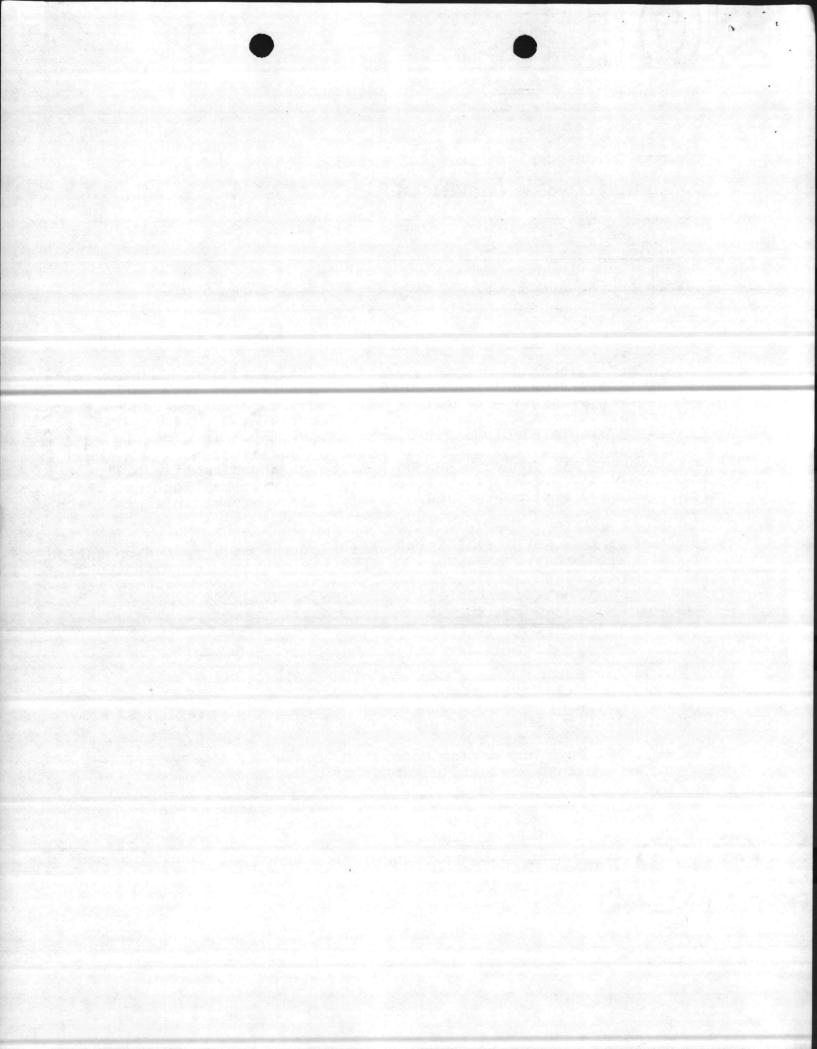
Civil Affairs

Military aircraft (Air Force, Marine and Navy) will conduct exercise related activities which will occur over government reservations or possibly within temporarily restricted airspace approved by the Federal Aviation Administration. These activities will consist of providing simulated Close Air Support (CAS) to field elements, air defense, interdiction, reconnaissance and aerial resupply, as well as a counter air campaign and both airborne and airmobile/helicopter borne operations. All low altitude sorties will be flown on approved low level routes and/or within the appropriate installation/range complex.

Army and Marine activities will consist of the manning and operation of the command posts necessary to meet the tasking as presented in subsequent paragraphs. Airlifted and sealifted forces also will conduct coordinated amphibious and airborne assaults, follow on maneuvers and dispersals. Ground forces will maneuver as necessary to provide the degree of realism required for specific support operations.

Major participating forces and agencies include:

- 1. U.S. Army. Forces under the Commander in Chief, U.S. Army Forces Atlantic (CINCARLANT).
- 2. U.S. Navy and Marine Corps. Forces under the Commander in Chief, U.S. Atlantic Fleet (CINCLANTFLT).
- 3. U.S. Air Force. Forces under the Commander in Chief, U.S. Air Force Forces Atlantic (CINCAFLANT).
- 4. Military Airlift Command. Airlift and air reserve forces from the component services.



5. Federal Aviation Administration (FAA). Participation in a coordination role for airspace management purposes.

The exercise area is defined as the overall area wherein exercise activity is expected to take place with sufficient concentrated activity as to be noticeably exercise related. Virtually all activity directly resulting from the exercise, other than small scale unconventional warfare (UW) operations and those taking place at staging bases, will be conducted in the exercise area. The offshore waters of southeastern United States are considered part of the exercise area.

Exercise related activity also will take place at military reservations in the eastern portions of Virginia, the Carolinas, Georgia and Florida, and possibly on National and/or state forest areas.

The exercise areas are subject to further revision as exercise planning progresses.

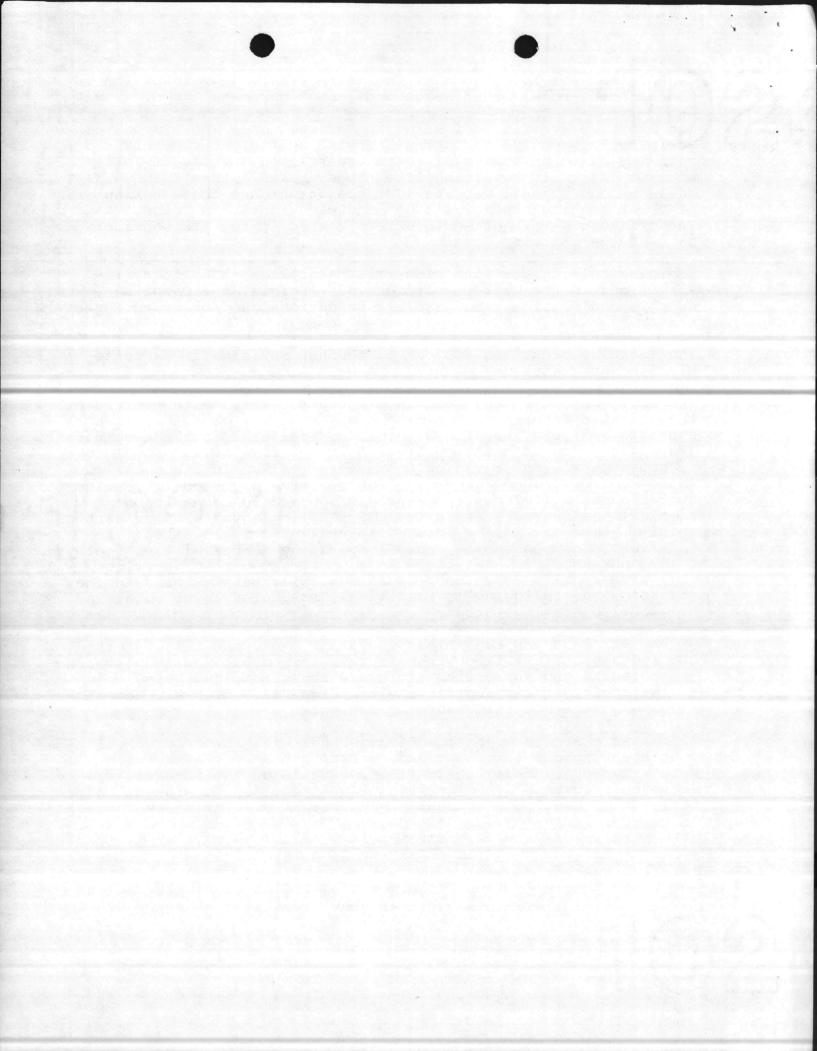
The Solid Shield 81 scenario is planned to exercise the forces of the Atlantic Command in a mid-to-high-intensity conflict, with emphasis on field operations involving reenforcement, non-combatant . evacuation, and offensive operation in a crisis area. SS-81 places emphasis on providing Commanders maximum latitude in employment of ground forces in a short-term, high mobility joint operation in a field environment, as opposed to emphasis on a tactical headquarters exercise. Tactical headquarters for participating commands will be located in realistic field sites. addition to command posts, actual operating forces will be deployed to conduct specific operations in support of joint or service objectives. While some troop operations will be simulated in the scenario, the following is tentatively scheduled to be conducted by actual operating forces:

An air/land and amphibious operation employing helicopters and supporting fixed wing aircraft, air mobile/helicopterborne assaults and supporting air operations from land based aircraft, an air superiority campaign, a counter air campaign and a mine countermeasure operation.

Since the exercise Operation Plan (OPLAN) will resemble actual contingency plans in format and general content, the exercise dates, maneuver areas, force lists, details of the scenario and sequence of events are classified "Confidential" to protect information that would reveal operational procedures of U.S. Military forces.

### B. THE NO ACTION/NO EXERCISE ALTERNATIVE

The Solid Shield series, or an exercise series of similar scope and complexity, presents the only opportunity the Atlantic Command



has for testing, developing, and evaluating its capabilities to act within the joint service framework. Additionally, Solid Shield also provides flexibility for testing unique factors which would pertain to contingency operations. The complexities involved in scheduling, planning, and executing an operation of this nature are unparalleled and are a vital factor in developing joint service cooperation, understanding and capability. Integrated (joint service) implementation of the military aspects of the national security program requires periodic testing and evaluation of this nature. Without such exercises, the Atlantic Command would be unable to develop, test, and evaluate its plans and its ability to act in response to the directives of the National Command Authority.

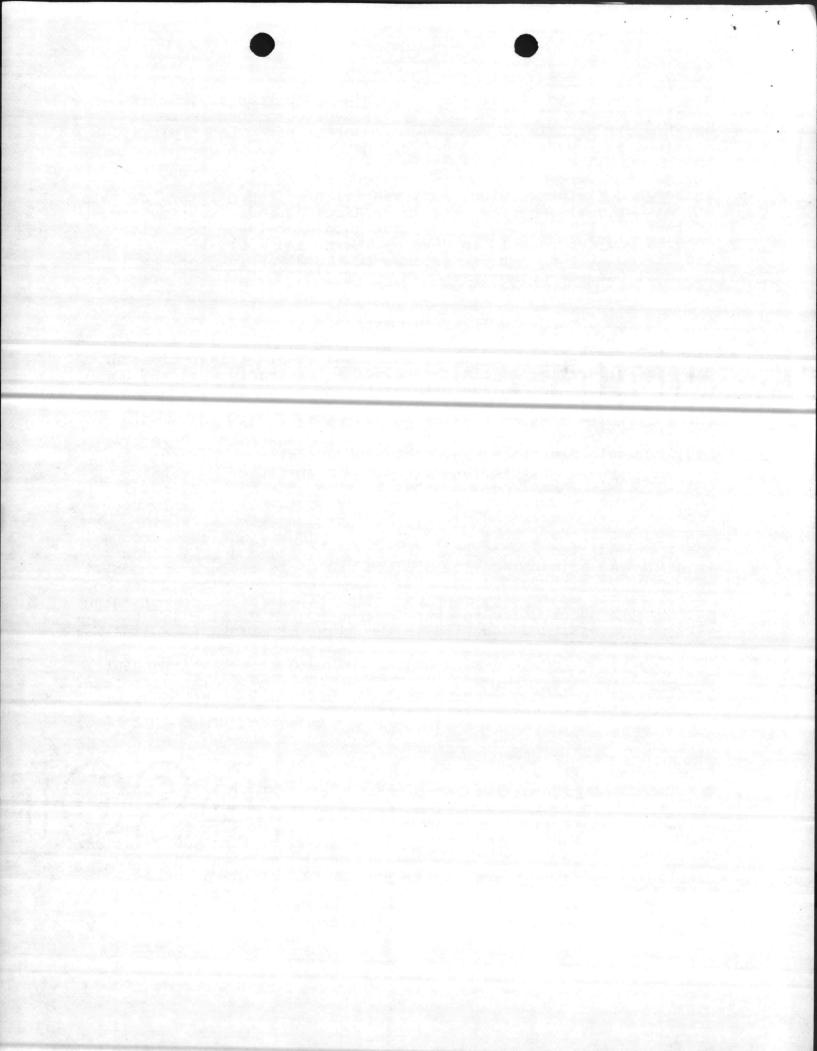
#### C. CONDUCTING SEVERAL SMALLER SCALE EXERCISES

Planning several smaller scale exercises at dissimilar times or at the same time, vice a joint exercise, is basically what the component services accomplish within their own exercise programs.

The ability to conduct a joint operation in a contingency or similar situation is paramount to the CINCLANT role. Several smaller scale exercises would not test/exercise the component service capabilities to function as a joint force. Several smaller scale exercises would have little, if any, additional value over no exercise at all, for they would rely heavily upon unrealistic features and overly artificial constructive vice actual operations. This would effectively deny assigned troops the opportunities associated with the training and experience to be gained in a joint service project and could produce as much, if not more, of a threat to the environment than the planned action. Such a series would also deny participants, particularly planning staffs, the opportunity to test, evaluate, and develop joint service concepts and doctrine in the light of modern technological development. It is the judgment of the Atlantic Command that a joint service exercise, such as Solid Shield with its attendant scope, objectives, and opportunities, is the best solution to the problem of developing professional expertise commensurate with minimum threat to the environment.

#### D. ALTERNATIVE SITES

The choice of alternative locations for the exercise is restricted by the area under the cognizance of CINCLANT and the location of military installations within that area that can meet the requirements of the required scenario. Further constraints would include the potential environmental impact on an installation from overutilization, i.e., the carrying capacity of the installation for Field Training Exercises, cost factors in relocating units from their home base, vice locating them in the field at their home or nearby installation, interference with installation high priority



missions and numerous other considerations. A further discussion of alternative sites is presented in the classified annex.

#### E. ALTERNATIVE FORCE LISTS

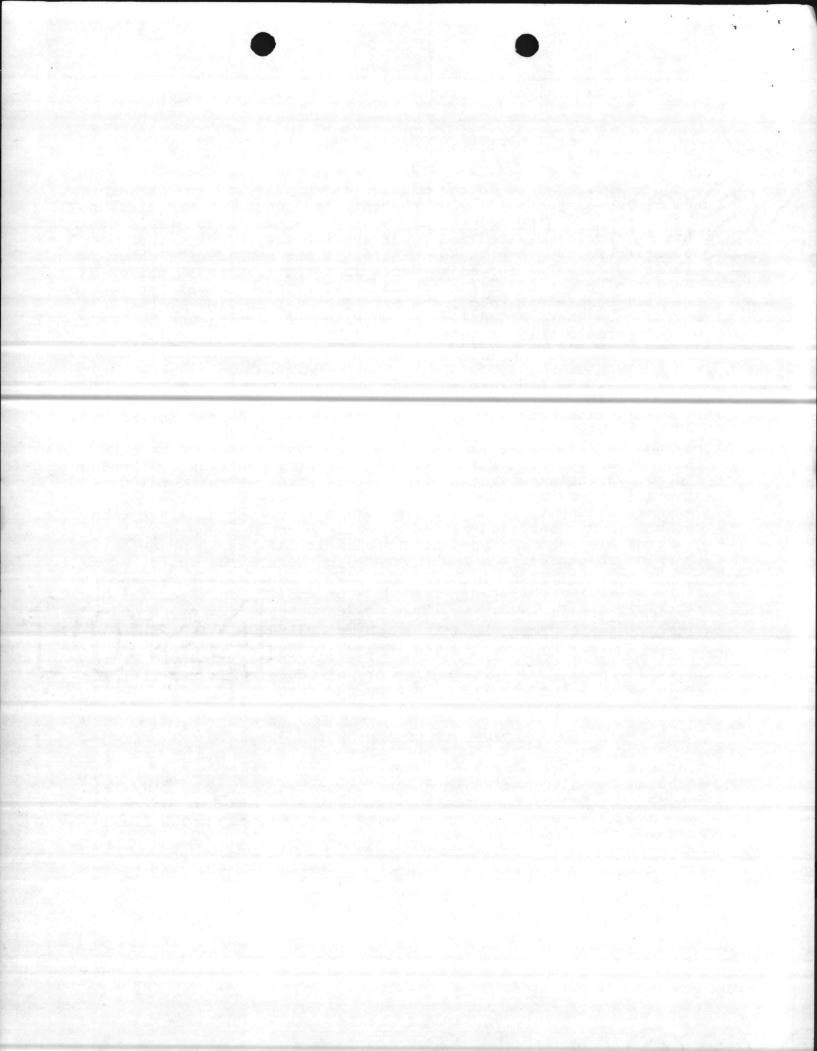
Units are selected to participate in joint exercises by the component service based on the mission of the service in the scenario being played, the ability of the unit to accomplish the mission within the exercise objectives, unit requirements for training in that particular mission and their availability. The method of selecting forces when these constraints are considered leaves little opportunity for adjustments in force lists with the exception of the utilization of the smaller component as opposed to the full complement, e.g., the battalion (-) in lieu of the full battalion. Where objectives of SS-81 could be achieved by the use of (-) forces, this is being planned.

#### F. ALTERNATIVE EXERCISE DESIGN

By taking into consideration what has been delineated in the preceding sections, the fact that the proposed exercise is being planned for a minimum impact on the environment should be taken into consideration, before altering the proposed plan. Planning and conducting an exercise without regard to environmental considerations would not be in the best national, Department of Defense, CINCLANT, or host installation interests. Rather than conduct an unrestricted or ecologically unsound exercise, the exercise has been designed as a realistic balance of practical training objectives and environmental concern. The decisions made and directives issued covering the environmental quality aspects of the exercise admittedly introduce or amplify certain military artificialities. However, it is believed these decisions and directives represent an effective combination of military training objectives and procedures coupled with genuine concern for the quality of the human environment, its enhancement and protection. To further alter exercise design or introduce further artificialities would not accomplish the required result.

#### G. COMPARATIVE DISCUSSION OF IMPACTS

A discussion of the projected impacts on the preferred exercise location and alternative locations is presented in the Classified Annex. The following impacts will occur to a similar degree for each of the alternatives which would place troops in the field vice a command post exercise.



### 1. Physical Environment

Some topographic alterations will occur due to the disturbance of surface soils. Off-road tracked and wheeled vehicle operations will disturb surface soil layers and expose less fertile subsoil, causing the potential for increased soil erosion by wind and rainfall. Steep sloped areas, if traversed, will be less capable of revegetation by natural processes and could require human effort to halt the erosion process. Repeated compaction of soils by vehicles will limit production of vegetation. Limited beach disturbance in the vicinity of amphibious operations will occur.

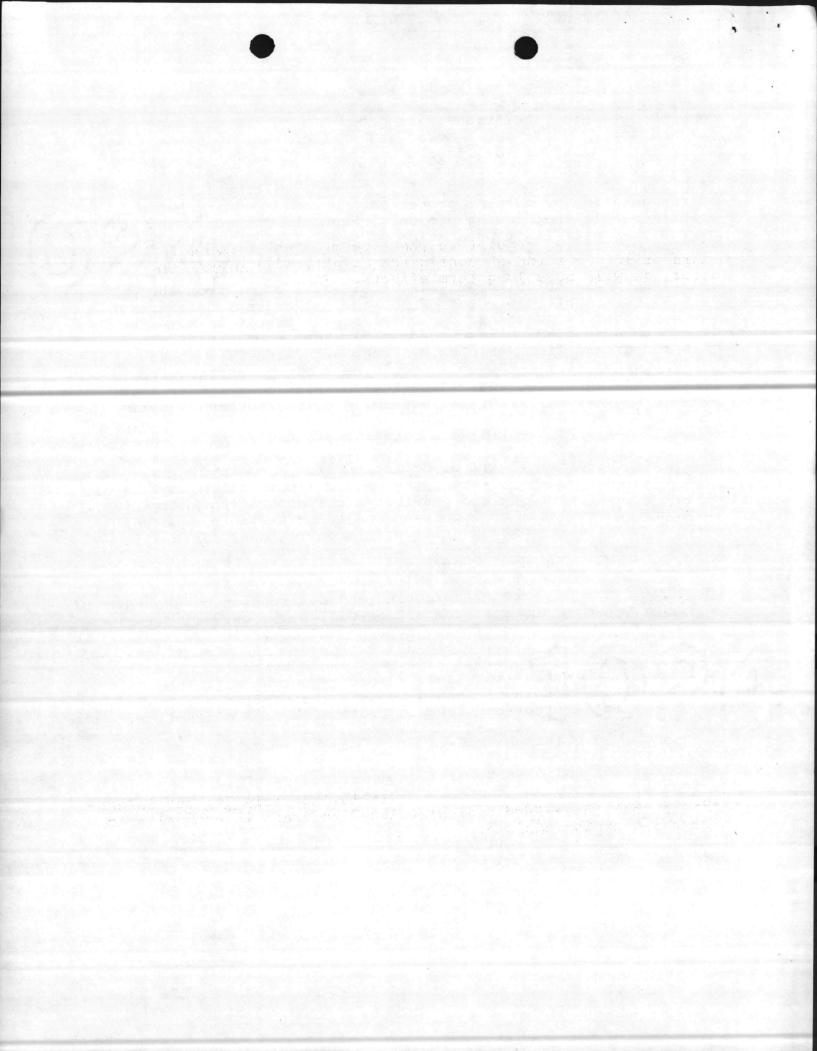
Localized degradation to surface waters will occur from the natural purification process of soakage pit and straddle trench leachate. Stream crossings by vehicles will result in some increase to suspended solids and possibly some contamination by oils and grease from vehicles. Stream standards from these activities or from a POL spill could be violated and require implementation of the host installation Spill Containment and Control Contingency Plan. Because of erosion, suspended solid levels may remain higher than normal for a more extended period. In any case, decreases in water quality are projected as being minor and of short duration. Air quality in localized areas of concentrated activity will be decreased from weapons firing, vehicles (dust and emissions), the internal combustion engines of portable power sources, and possible smoke generating activities. This degradation will be localized and temporary in nature and have no measurable consequential effect on regional air quality.

## 2. Natural Environment

In vehicle maneuver areas, uprooting and destruction of ground cover by crushing and soil compaction will occur as will destruction of grasses and similar type ground cover in areas of heavy foot traffic, e.g., Field Headquarters areas. Some more mature trees and shrubs will also be damaged by the tracked vehicles. Some damage to wildlife food resources will thus occur. Small amounts of endangered species habitat may be destroyed in spite of precautions to protect it from disruption.

## Infrastructure

Low volumes of solid waste will be generated by field troops daily during the exercises. These low volumes are based on the fact that to realize the most training during the limited period the field elements remain mobile and subsist on "C" rations. The disposal of this solid waste will result in monor increased loads at host installation landfills from troops not normally assigned to that installation.



Potable water requirements are estimated at five gallons per man per day. This volume also is a result of high mobility of the field maneuver elements. The largest volume of water will be required for the wash down prior to the backload of equipment. The water for the last phase amphibious backload will be obtained from the service craft who will have obtained it from the amphibious ships. A preliminary washdown of equipment will use approximately 300 gallons of water/vehicle which will be obtained from the host facility. This amount is not considered excessive.

In summation, some cumulative short-term direct effects (five years or less), although considered slight, will nevertheless occur, as will some long-term effects. Consideration of these cumulative effects, including those identified in the classified annex, as well as consideration of the resultant impact of previous similar exercises does not reveal the potential for significant effects on long-term productivity. The disruption of surface soils, resultant erosion and eventual stabilization of disturbed soils either naturally or by artificial means may produce an altered vegetation pattern in the affected area, i.e. natural succession from field to thicket, etc. will be altered. This, however, is the usual situation in any man-dominated environment.

In addition to consideration of the effects the preferred alternative has on the environment, the effects it has on CINCLANT's capabilities to perform its missions are also worthy of consideration. In the shortterm, the conduct of Joint Exercise Solid Shield 81, as proposed, will allow CINCLANT to test and evaluate the capability to respond to the directives of the National Command Authority. This, in itself, is a vital factor in the decision to conduct the exercise.

As previously noted, SS-81 is a complex Joint Training Exercise for components of the Atlantic Command. It is the only CINCLANTsponsored exercise series that tests the validity of realistic scenarios closely related to potential conflicts or actual contingency plans, as well as the ability of the armed forces to interact as a cohesive unit and accomplish the same goal with a minimum of duplication of effort or delay. Each year, the exercise provides readiness training through the spectrum of joint forces, ranging from component commanders, through the headquarters staffs, to the individual soldier, sailor, or airman. This exercise is planned on a rotating schedule, based on a comprehensive assessment of need to emphasize specific areas of operations under the missions of the Atlantic Command. It is imperative to our defense posture that these forces are permitted to train in as realistic a scenario as is feasible. Should even a partial mobilization be required, the capability to respond must be known, as well as any potential problem areas. Since the only proven method of testing any plan is implementation, the Solid Shield Exercises are considered vital to the defense posture of the Atlantic Command.

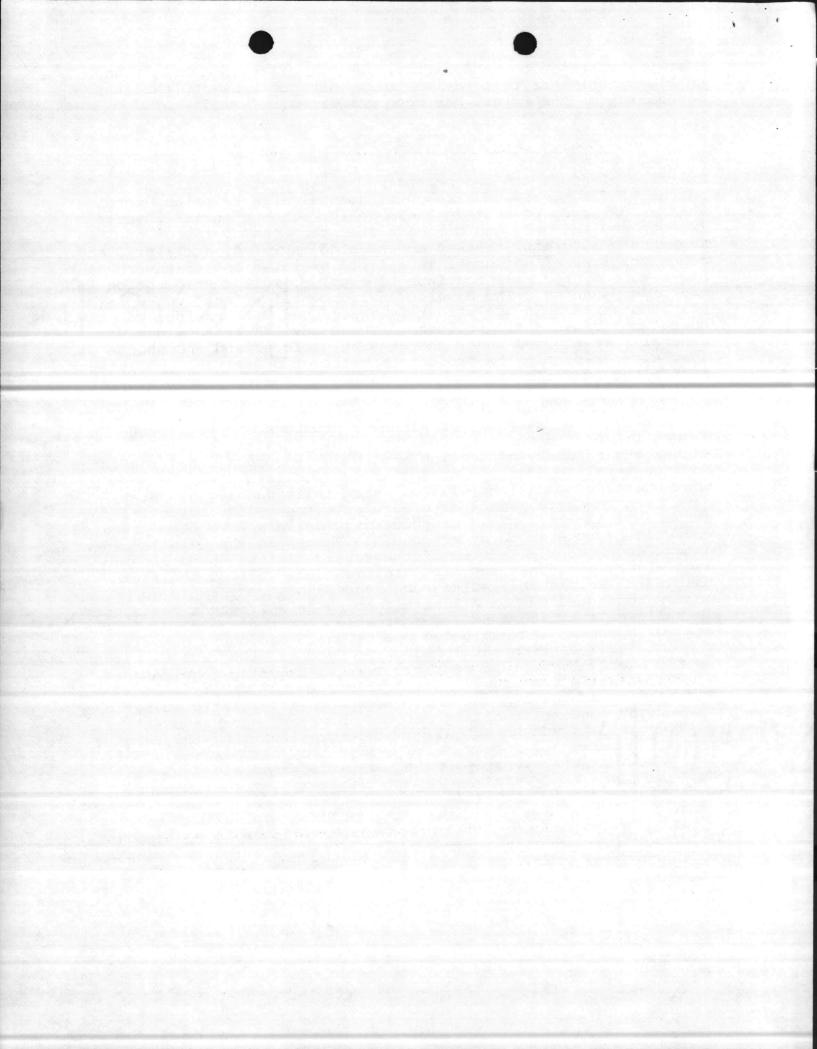
Host installation commanders have the authority to detain troops until such time as restoration to any damaged areas, within the capability of the force, has been completed.

## H. MITIGATION MEASURES

Exercise planners and the participants are acutely aware of the potential for severe adverse environmental effects of an exercise that is designed to achieve these goals. The potential adverse impacts and the means to mitigate them from the operation of supersonic aircraft, tracked and wheeled vehicles, artillery, and concentrations of personnel in a field exercise on the environment has required, and will continue to receive, full consideration in exercise planning. The adverse environmental effects noted in previous paragraphs are primarily associated with the normal operations of an exercise force. These adverse effects can generally be grouped under the heading of localized and short-term alterations in the production rates of undesirable pollutants within the exercise area and a possible increased probability of accidental (hence, unplanned) damage.

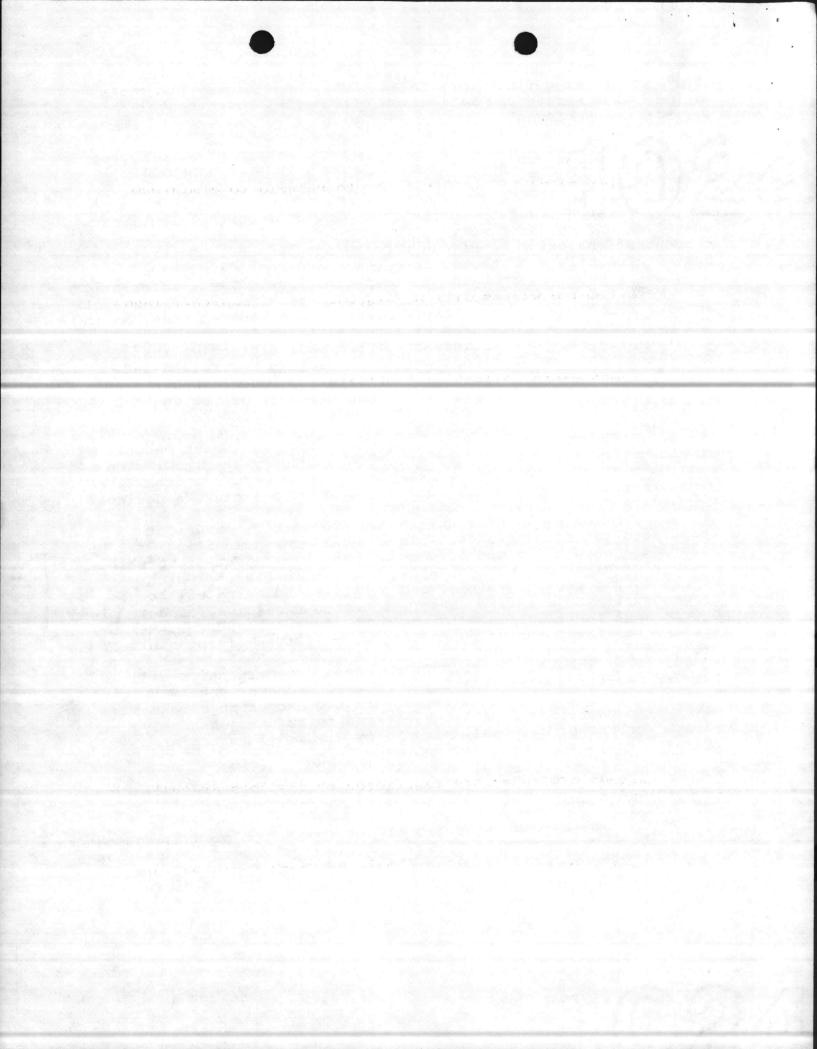
In summary, the exercise, as planned, produces a generalized, unquantifiable, benefit to the proponent (Atlantic Command) within the category of testing and enhancing operational readiness. Environmental impacts are essentially neutral in that pre and post-exercise conditions will be essentially unchanged. Steps have been taken to reduce or otherwise mitigate the potential for accidental damage. Basic procedural guidelines have been prepared and will be adhered to by responsible forces in the event accidental damage does occur. In view of the considerations noted above, and further discussed in this Assessment, as well as the fact that SS-81 is the only multi-component major troop exercise series conducted by the Atlantic Command on a frequent basis, it is believed that the benefits accruable from the exercise, in the area of enhanced and evaluated operational readiness, outweigh the potential environmental impacts. Further, the various alternatives to the exercise, fail to meet the overall existing requirements of the Atlantic Command.

The need to exercise plans and commands in a realistic scenario is a major concern in all exercises. However, because SS-81 is an exercise and not an actual contingency situation, the requirements for personnel safety, plan evaluation, and mitigation of environmental effects allow added emphasis to be given to the areas of personnel safety, hygiene, field sanitation, vector control, long and short-term environmental impacts, etc. Therefore, general rules of exercise play and procedural guidelines that stress the avoidance of any action which might endanger personnel or otherwise subject the personnel, equipment, or environmental to substantial damage or destruction are being developed and evaluated.



The following rules of exercise play have been incorporated in exercise planning, thus far, in an attempt to ensure that goals of personnel safety and mitigation of adverse environmental effects are achieved.

- 1. Force movements are controlled and separated into phases with fixed limits of advance, as opposed to a free maneuver exercise in which forces move at will.
- 2. Personnel safety in the area of vector control requires that tick and mosquito surveys be conducted in areas of troop concentrations prior to bivouacs being established. Moderate to heavy infestations of ticks, mosquitos, and deer flies have frequently been observed in previous exercises. These infestations have resulted in personnel requiring medical attention because of adverse reactions, etc. Therefore, it is anticipated that, as in the past, control procedures will be initiated. Control procedures consist primarily of the issuing of personal protective insect repellants and area applications of pesticides by trained and certified personnel in pesticide application under a Department of Defense plan. All applications and disposal of residue and containers are in accordance with prescribed procedures.
- 3. Areas surrounding communication/radar equipment capable of producing hazardous levels of radio frequency (R-F) emissions will be posted at the appropriate distance to warn personnel that a hazard exists for people, fuels, and electro-explosive devices.
- 4. The use of live ammunition is prohibited, except at authorized target complexes. Blank small arms ammunition will be issued and used. The use of chemical and riot agents is prohibited. The use of blank ammunition, smoke pots, trip flares (which simulate trip grenades/mines) and other incendiaries will be suspended if the wildfire danger is deemed excessive, as determined by the host installation's forest fire index procedures. Deliberate setting of fires, including cooking or campfires, is prohibited.
- 5. The disposal of unused ordnance and pyrotechnics will be closely monitored and controlled. Unused ordnance and ammunition residues (cartridge casing, etc.) with the exception of expended small arms cartridges, will be returned to ammunition supply points for proper disposal, vice being discarded in training
- 6. Camouflage activities are restricted by host installation regulations.
- 7. The intentional spilling of oil or other hazardous substances is prohibited. Department of Defense instructions on the discharge of oil or other hazardous materials will be adhered to, including

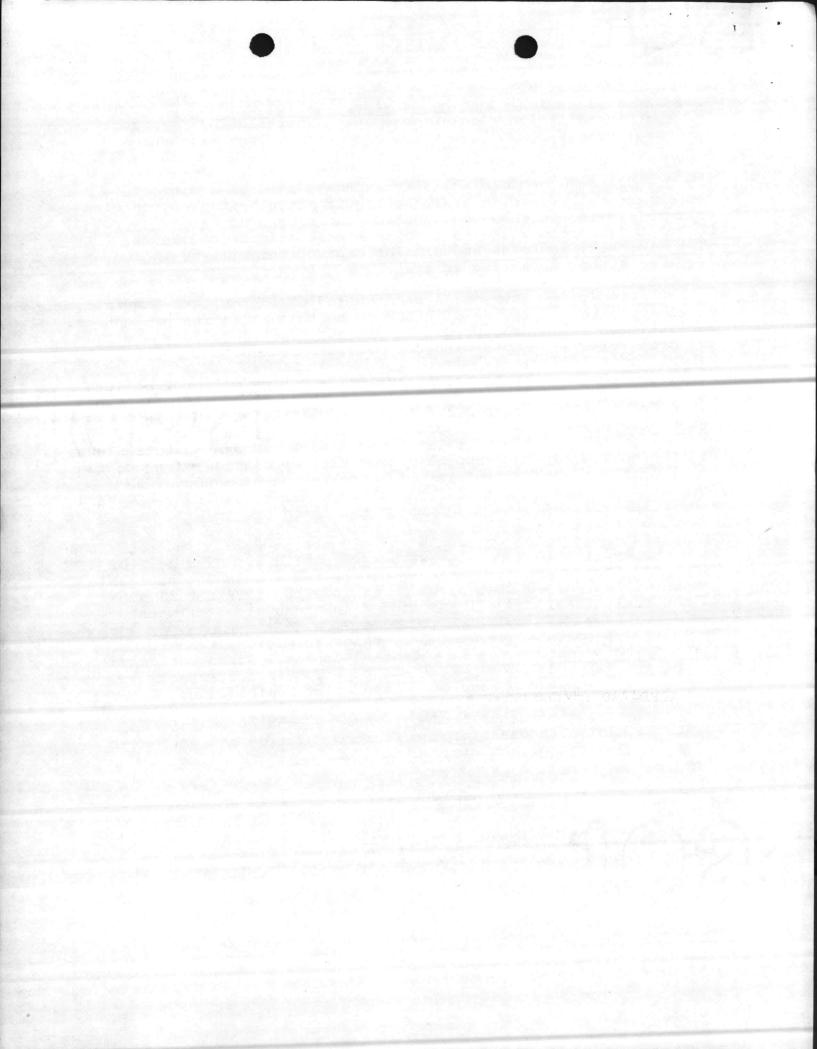


DOD Directive 5030.41 series. This series requires compliance with the National Oil and Hazardous Substances Pollution Contingency Plan, as well as implementing service, unified command directives and host installation regulations. Each installation/component has the required Spill Prevention and Control Countermeasures Plan and this plan will be followed by all units.

- 8. Off-road vehicle activity is to be held to a minimum, consistent with exercise training requirements. Tracked vehicles will be limited to those designated trails or other areas approved by and coordinated with the cognizant base or post commander. Slit trenches, foxholes and similar excavations will be filled in prior to troops departing an area.
- 9. All solid wastes will be disposed of in sanitary landfill, in an approved manner, as directed by host installation procedures. Sanitary landfills are the only approved means of solid waste disposal for all troops, with the exception of UW personnel.
- 10. Human waste collection facilities, which will not pollute groundwater or endanger human health, such as chemical toilets or field latrines with concrete collection vaults, are the minimum acceptable human sewage disposal facilities in troop concentration areas (command posts or similar fixed areas). Human waste residues will be collected and disposal procedures coordinated with cognizant local public health officials, or installation commanders, as appropriate. When available, suitable installed sanitary sewage facilities will be used. Shipboard generated sewage will be disposed of following Navy policy, which provides each ship with appropriate equipment to handle and dispose of sewage in accordance with the applicable Federal laws and regulations. Discharge of untreated "black water" sewage is prohibited within the navigable waters of the United States, which include the territorial seas (3 nautical miles) and all associated inland systems of water.

Discharges into the open ocean, by ships in motion, tend to be diluted, thus reducing their potential impact. Since most naval vessel activity will occur well offshore, potential impacts because of ship sewage discharges are greatly minimized. Generally, ship concentrations near the shore will be only those associated with a planned amphibious landing. During landing operations, sewage is minimal because of the limited duration and personnel intensive generation activities involved.

ll. Stream crossings are restricted by the host installation to approved points, with vehicle washing in streams prohibited. The use of streams and ponds in the maneuver area is restricted. These water sources will not be used to wash vehicles. No liquid discharges or refuse disposal will be allowed into the water courses. Streams will be crossed only at roads, bridges, and



fording sites coordinated with the host installation. Restrictions on stream fording sites will reduce turbulence and the change of accidental minor Petroleum, Oil, Lubricants (POL) spillage. All vehicle and aircraft washing will be confined to wash racks approved for use by the installation commander.

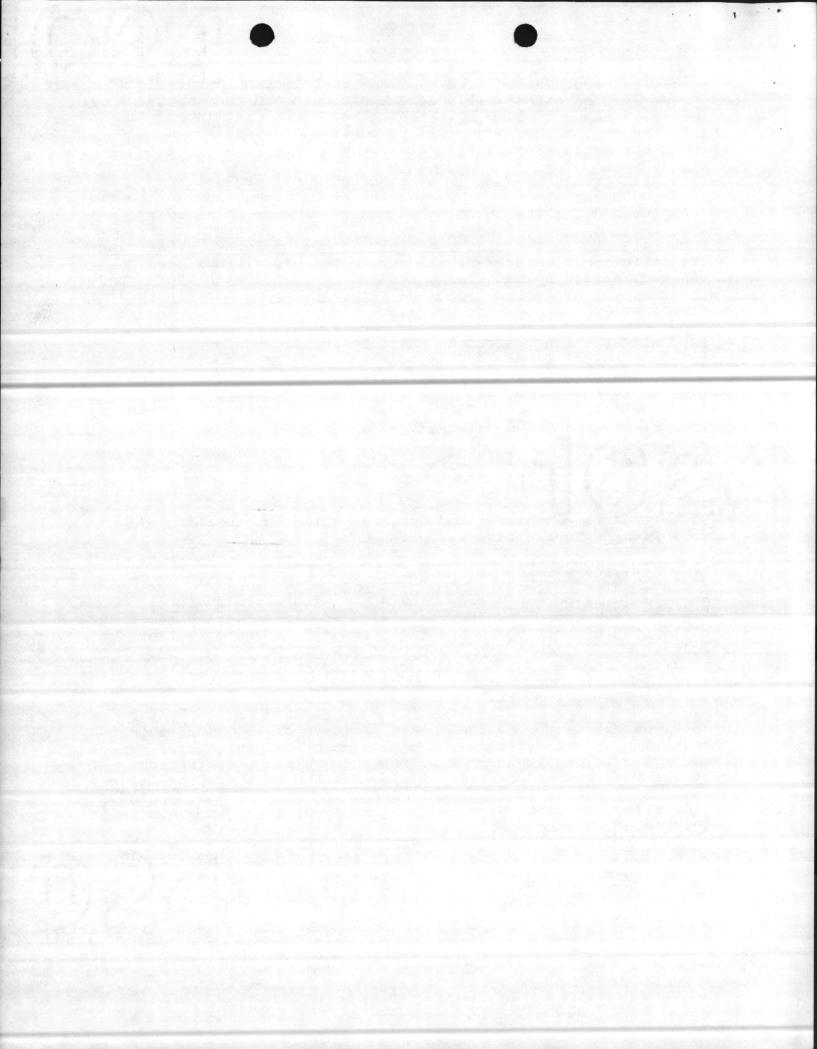
- 12. All bivouac areas will be thoroughly policed prior to final troop departure from the exercise area. Component commanders are responsible for the policing of maneuver areas utilized by their troops to assure cleanliness, etc. If necessary, troops will be returned to the area to effect adequate cleanup. Exercise and installation commanders shall ensure the expeditious repair of maneuver damage by maneuver units in accordance with the CINCLANT Letter of Instruction (LOI) and applicable host installation instructions.
- 13. All aviation operations shall be in accordance with procedures, restrictions, and associated agreements coordinated with the Federal Aviation Administration (FAA). These procedures will ensure aircraft on fire fighting missions receive airspace priority over exercise aircraft. Supersonic flights are prohibited except for limited flights in authorized areas over the Atlantic Ocean. Aircraft afterburner use will be limited to situations wherein such use is dictated by flight safety requirements. Low level (below 1,200 feet) flight by high performance fixed wing aircraft will be limited to:
- a. Takeoffs, landings, and operations in the proximity of targets within the exercise airspace;
  - b. Authorized airspace.

Flight time will be minimized, consistent with exercise requirements. Optimum cruise control procedures will be followed during administrative flights in order to reduce fuel consumption and pollutant generation.

#### III. AFFECTED ENVIRONMENT

The environment of the coastal plain province of the southeastern states has many similarities and can be described in general terms. This is particularly true for the military reservations located either on the coastal plain, or in the area of transition between the Coastal Plain and the Piedmont. As previously noted, more detailed information on the land maneuver areas is contained or referenced in Annex A.

The exercise will take place, insofar as practicable, on military reservations. Some remaining activities (principally UW) may occur in national and state forests or in rural areas adjacent to



those military installation(s)/reservation(s) where troop concentrations and related activity will take place. Also, other areas under the OPCON of CINCLANT in a contingency situation also may be used. No troop operations will be conducted in urban areas.

## A. Physical Environment

## 1. Geology

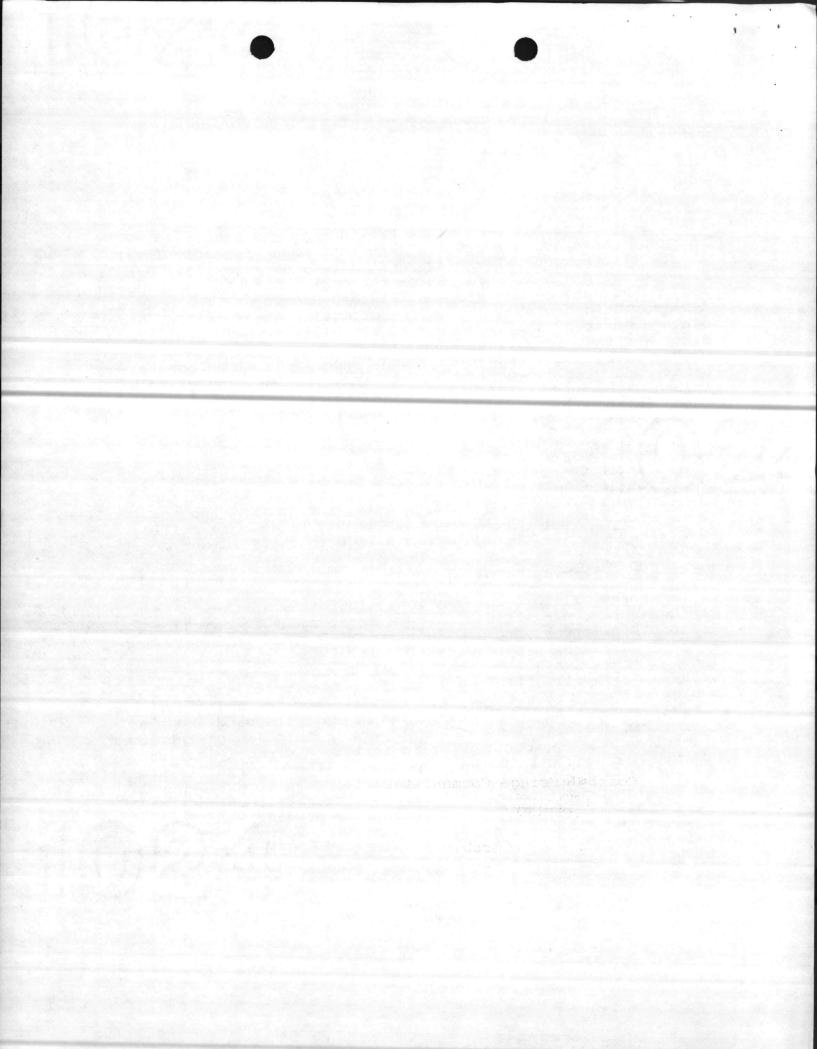
The Atlantic Coastal Geological Province is characterized by unconsolidated sediments which were laid down in nearly level strata tilting generally seaward at a rate of a few feet per mile. The coastal plain is bordered on the east by the Atlantic Ocean and on the west by the Piedmont Plateau Province. The coastal plan formations consist primarily of marine sands, silts, and clays deposited from about 130 to 200 billion years ago. The older Yorktown formations have since been covered with a veneer of Pleistocene and recent dune and beach sands along coastal areas, and with non-marine deltoic sands, silts, and gravels inland. The unconsolidated sandy silts, fine sands, and clays found throughout the coastal area belong to the Pleistocene era.

## 2. Topography

The Atlantic Coastal Plain represents the emergent inner part of the Atlantic Continental inner shelf. As such, the surface configuration is relatively flat, ranging inland from the sea level areas at the coastline through the gently to sharply rolling ridge sections that mark the transition to the Piedmont Province.

#### 3. Soils

Soils of the military reservations within the southeastern states can generally be described as rock free, sandy in character, with low organic matter, and low fertility. Surface soils are generally underlain by predominantly marine sands, clays, and silts. The surface soils are typically free draining. However, periods of heavy rainfall often result in poor trafficability because of a high surface water table that results from the relatively inadequate subsurface drainage of the silty, fine sand and clay soils that underlay the surface layers. The soils of the lower elevations are usually heavier in texture and poorly drained or swampy. It should be noted that many of the Coastal Plain military reservations were acquired in the early years of World War II. The government purchased those lands that were the least expensive, i.e., generally the least agriculturally productive. Thus, not only are the military reservations similar in their physical environment, but also, they are generally similar in fertility and biotic communities.



#### 4. Groundwater

Groundwater in the coastal plain is commonly found in three principle hydrogeologic units; the cretaceous aquifer system, the tertiary aquifer system and the water table or quaternary aquifer; and in the westernmost areas, the triassic aquifer. Throughout the coastal plain, rural areas rely on wells for residential and agricultural water supply.

#### 5. Climate

The southeastern coastal plain is located in a humid subtropic climatic zone that is characterized by mild winters and hot, humid summers. Spring and fall are usually distinctive and the most pleasant time of the year. June through August are the hottest periods, with December through February the coldest periods. Mean temperatures range from 47°F through 77°F at Norfolk, Virginia, to 64°F through 80°F at Jacksonville, Florida. Annual precipitation is generally well distributed throughout the year. Heaviest rainfalls occur in July and August, with fall, particularly October, the dryest part of the year.

## 6. Air Quality

Air Quality through the rural coastal plain is influenced by the terrain and meteorological conditions, as well as the urban areas, with their concentrations of pollutant sources. Generally, the air quality at military reservations is within the national primary and secondary ambient air quality standards set by the Environmental Protection Agency. The most probable exception would be Photochemical Oxidents at those installations located in urban and/or industrialized air quality control regions.

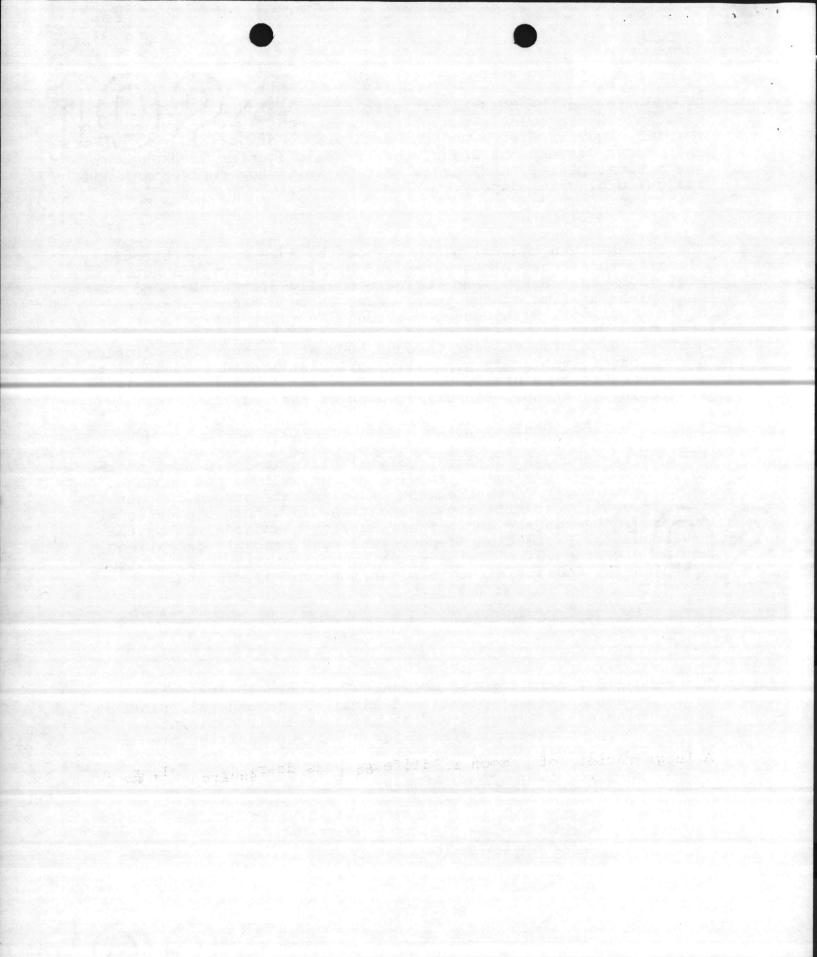
#### B. Natural Environment

#### 1. Biota

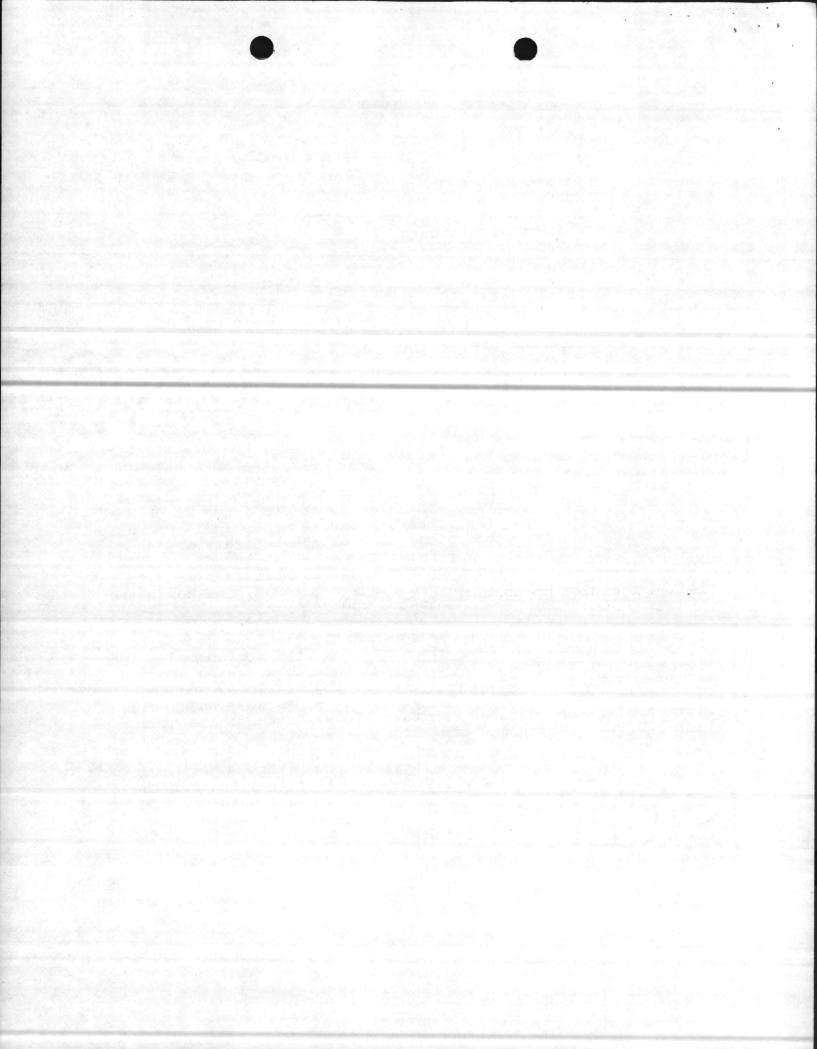
The conceptual term "biotic community" is used to designate a distinct assemblage of plants and animals. In general, biotic communities are identified on the basis of their dominant vegetation, by physiography. The major biotic communities present within the coastal plain are:

Coastal Fringe Communities

Beach Dune Maritime Shrub Thicket Maritime Forest



# Coastal Plain Communities Swamp Forest Pocosin Longleaf Pine-Turkey Oak Forest Loblolly Pine-Longleaf Pine Forest Hammock Communities Inland Bogs and Marshes Ponds and Lakes Estuarine Communities Open Water Tidal Marshes Tidal Flats Fluvial Swamps Other Communities Agricultural Lands, Old Fields, Pine Plantations Man-dominated Communities All biotic communities are dynamic and evolve toward a steadystate equilbrium with their surrounding physical environment. This is particularly true of the coastal communities because of the often rapid allogenic and/or autogenic changes associated with their physical parameters. The flora and fauna respond to these changes through the process known as ecological succession. As a consequence of succession, many of the habitats in the Coastal Plain represent intermediate phases of the distinct biotic community types cited above. An example is a mixed pinehardwood complex that is intermediate between a pine-dominated community and a hardwood-dominated community. Biotic communities seldom change abruptly from one community type to another. Instead, they blend more or less continuously into each other, producing a transitional zone known as an ecotone. Ecotones typically contain an overlapping of floral and faunal components from both adjacent communities, as well as species which prefer the ecotonal habitat. Thus, ecotones are often highly diverse areas and are important as wildlife habitats. A large variety of common wildlife such as deer, squirrel, rabbit, quail, raccoon, muskrat, opossum, and water fowl inhabit the maneuver areas of the coastal plain. Non-game species, which comprise the largest amount of wildlife resources, that are common in the areas, include skunks, mice, rats, shrews, and various avian species. Each of the military installations utilized for the exercise has a wildlife management plan developed by the base Natural Resources Department, in cooperaiton with state and Federal wildlife 17



agencies. The plans are updated on a regular basis. These plans usually divide the bases into wildlife management units with management emphasis placed on practices determined best for that unit. Local emphasis is usually directed toward management of forests, forest game species, and endangered species.

## 2. Threatened or Endangered Species

The Endangered Species Act of 1973 directed the Department of Agriculture, Interior and Defense to protect endangered species and their habitats on lands which they administer when such actions are consistent with the mission of the area.

Section 7 of the Endangered Species Act requires Federal agencies to consult with the Fish and Wildlife Service and the National Marine Fisheries Service to ensure that actions that they authorize, fund, or carry out do not jeopardize the continued existence of an endangered or threatened species or result in the adverse modification or destruction of their critical habitat. For the most part, this coordination/consultation has been accomplished by the installation commanders and review of pertinent correspondence and comments will be incorporated into the decision making process prior to the determination to hold the exercises as it is conceptualized.

Threatened and endangered species known to inhabitat the Federal reservations, within the southeast, and most likely to be affected by the exercise, are listed in Table I-1.

Of the endangered or threatened species listed in Table I-1, the following are afforded special considerations on military installations, and measures to protect their habitat are taken:

The Red Cockaded Woodpecker, a resident in mature and oldgrowth pine woodlands from southeast Oklahoma, Arkansas, western Kentucky and southeast Virginia, south to the Gulf Coast and southern Florida, is uncommon and very local through most of its current range. The Red Cockaded Woodpecker prefers open pinewoods and its requirement for mature pines for cavity construction is well documented. The development of a dense hardwood understory causes the bird to abandon the territory, especially when this development prevents access to its cavity. Home range may vary from 25 to 150 acres, depending on timber type, stand density and the number of birds.

On the affected military reservations, cavity trees and varying amounts of adjacent land are protected from logging. Each installation is continuing coordination with the Fish and Wildlife Service in compliance with the regulations for Interagency Cooperation - Endangered Species Act of 1973, as published in the January 4, 1978 Federal Register.

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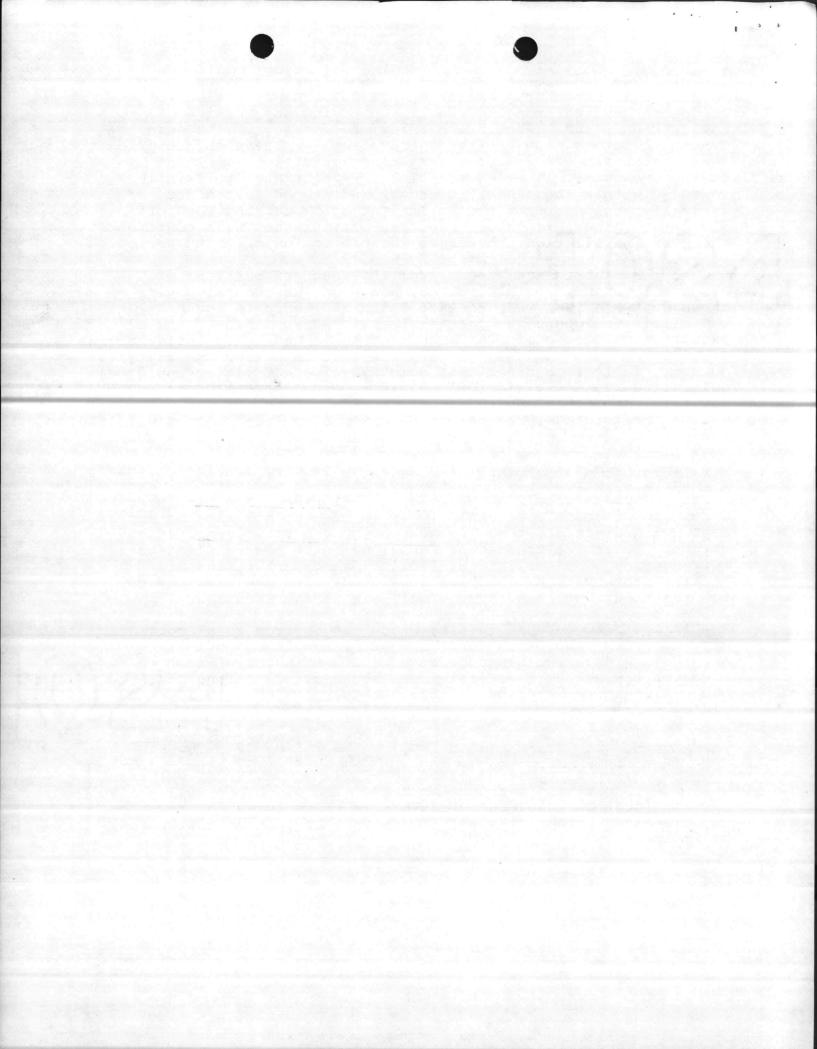
di kan di gwod phitodighich hang than bungaray (1965) Ra Rainako wa atanga kana kana ting than ting in the fire of the same than The wildlife management programs of those installations, which may be utilized for the exercise, now provide protection for the woodpecker habitat ranging from inventorying and marking of cavity trees, and prescribed burning, to marking of 100 acre tracts of mature pine habitat surrounding the trees and ensuring these areas are off limits to training activities involving tracked vehicles. Wheeled vehicles are restricted to existing roadways within these habitat areas, and ground forces are generally excluded from the habitat areas by marking them off limits, or minefield, etc. Exercise participants will conform to the host installation procedures for protection of this species.

The American alligator ranges from the southern portions of Albermarle Sound, North Carolina, south on the coastal plain throughout Florida, west to east Texas and north to south Arkansas. The alligator occurs in coastal rivers, lakes, marshes, and estuaries. Because of its large size and aquatic habitat, exercise participants are unlikely to have a direct impact on the alligator. However, it is recognized that some exercise activities could be deleterious to the alligator's habitat, e.g., stream crossings. For this, and other environmental considerations, stream crossings will be restricted to locations determined by installation wildlife management personnel and approved by the installation commander.

The Pine Barrens Tree Frog, listed as endangered in Florida, has a range of apparently disjunct populations in southern New Jersey, North and South Carolina, Georgia, and Florida. The pine Barrens Tree Frog occurs almost exclusively in or near pocosins or shrub bogs, with dense growths of pines, bays, and various ericaceous shrubs. No active management techniques have been applied to this species by installation wildlife management personnel. Habitat preservation, which is consistent with the missions of the installations, remains the only management technique.

The Atlantic Loggerhead Turtle, which ranges from Nova Scotia to Argentina; and the Green Turtle, whose range is essentially tropical waters from Massachusetts to Argentina, are known to frequent the offshore waters of the southeastern United States, and Caribbean, as are the Atlantic Leatherback, Hawksbill, and Ridley turtles.

Both the Loggerhead and the Green turtles are known to use the beaches of some military reservations for nesting during the May through August period. Management practices consist of Natural Resources Department personnel placing wire cages over all active nests to protect them from predators, such as foxes, or raccoons, and diverting troop activities to prevent accidental disruption by troops.



In summary, Federal and state inventory lists of rare and endangered plant and animal species are available at each reservation. The Natural Resources and/or Environmental Affairs Departments of the installations have initiated endangered species programs and have completed or are involved in negotiations under the January, 1978 Interagency Cooperation Regulations. The inventories, established programs, and staffs appear to be sufficient to ensure a successful long-range program consistent with the military installation missions and exercise activities for the protection of threatened and endangered species.

#### C. Socio Cultural

#### 1. Land Use

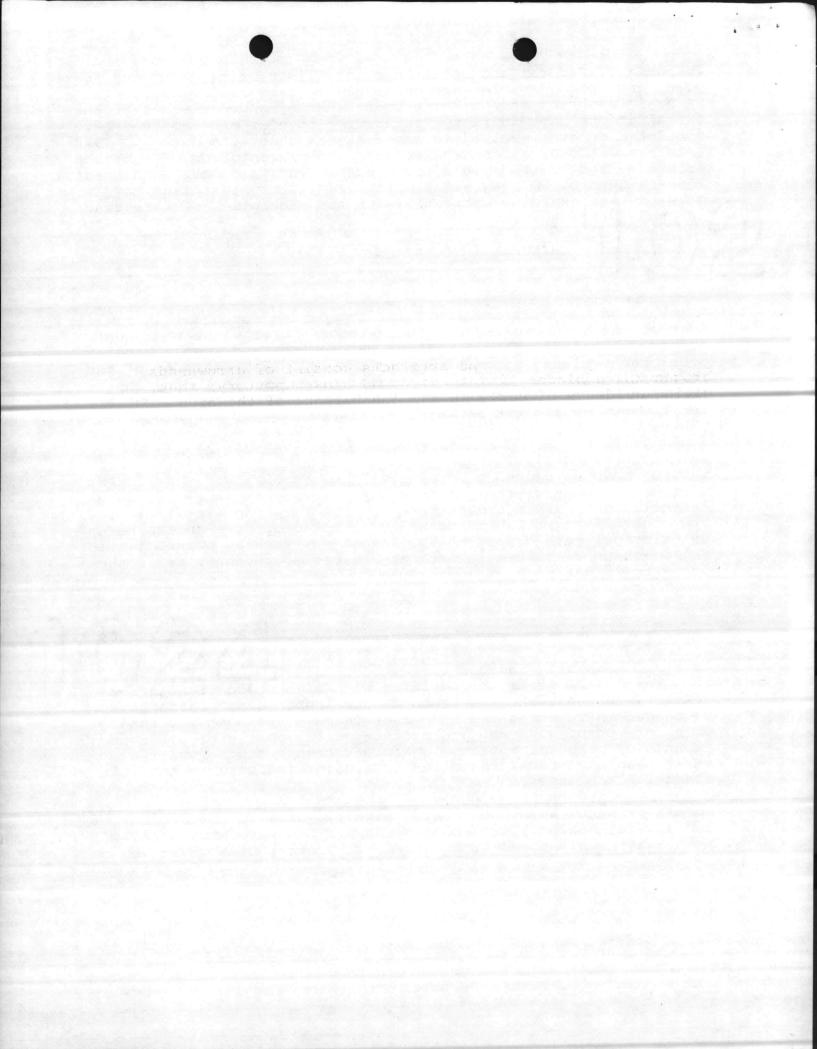
Land use on the military installations of the southeast is similar in that there is usually a main cantonment area where personnel support, housing, administration, maintenance and supply, and other such related activities are located. The remainder of the reservation is then devoted to training ranges, including impact areas and safety zones and maneuver areas and/or areas necessary for the accomplishment of the base mission, e.g., training ranges, runway, hangar areas, etc.

In most instances, off-base areas surrounding the military reservations have developed as commercial/residential areas dependent upon the economy of the military base. The areas surrounding the installations, and not dependent upon it for economic viability, are generally agrarian in nature with tobacco, corn and soybeans as principal cash crops. Also, livestock, such as swine, cattle, and chickens are often important sources of revenue, as is the forestry industry.

## 2. Economy

The traditional economy of the coastal region has centered on agriculture, forestry, commercial fisheries, and recreational tourism. Socially induced trends of population migration away from rural farm areas, competition with high productive agricultural regions, and the trend toward "super size" farms have succeeded in reducing the number of farms. The most important crops are corn, soybean, and produce, with locally significant amounts of peanuts, tobacco, and other cash crops. Poultry, swine, and livestock production is a major industry in some Coastal Plain areas.

Forest products have contributed significantly to the economy of the coastal region since Colonial days. However, historically important naval stores (turpentine, tar, etc.) have given way to lumber, pulp and pulpwood production from commercial forests and tree farms.



# 3. Parks, Historical and Cultural Properties

In an attempt to provide the resources of the exercise area, the legal protection of Section 106 of the National Historic Preservation Act and Executive Order 11593, the National Register of Historic Places was consulted. The National Register identifies no historic resources that will be affected by the proposed exercise.

A National Register property is located on one of the potential host installations. This installation, in coordination with the state office of Historical Preservation, has developed and implemented a plan for protection and enhancement of the historic property. This property will not be affected by the proposed exercise, as it is not located in an area of exercise activity.

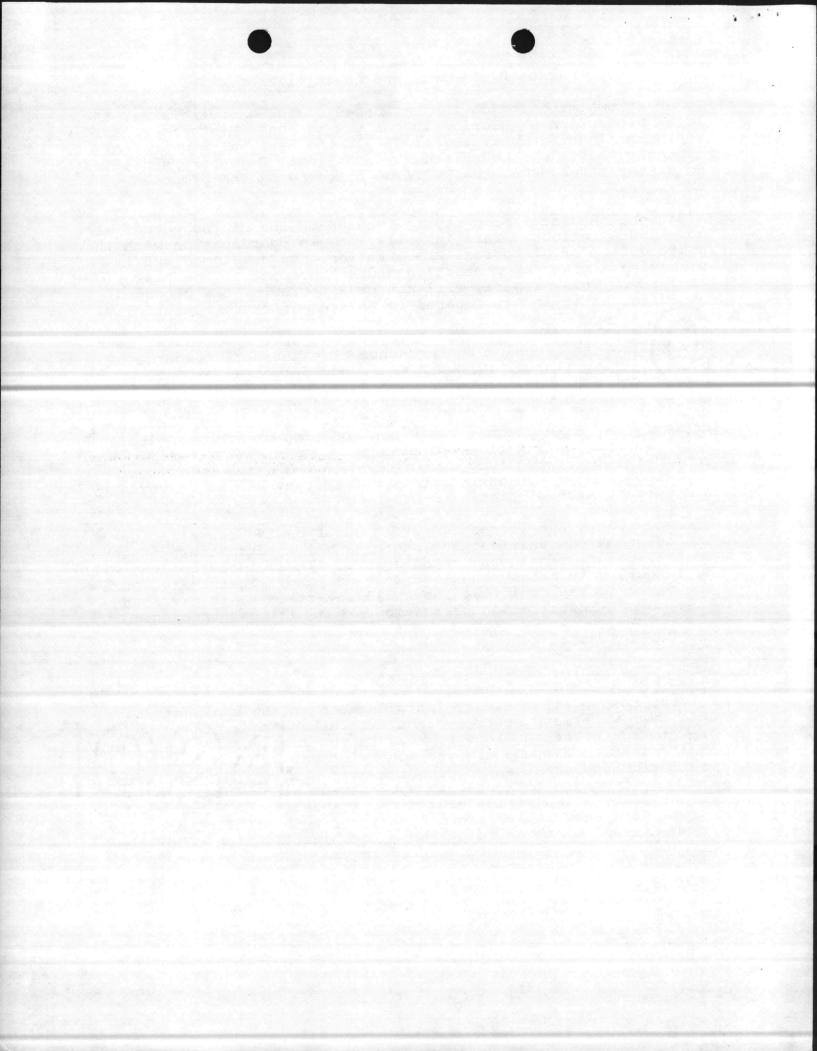
A preliminary archeological survey of one of the potential host bases also has revealed the presence of a national resource of potential importance. The artifacts consist of arrowheads, broken knife blades, flint chips and broken pottery; thus, giving evidence of early Indian inhabitance of the area. Such artifacts also may occur at other installations where exercise activity may take place. The known location of archeological sites at the installation are classified "administratively confidential" to preclude disturbance of the sites by amateur archeologists or souvenir hunters before they can be surveyed by a competent archeologist.

Numerous parks and recreation areas occur on the installations and adjacent communities. The exercise may interrupt use of some recreation areas on host installations. These interruptions will be temporary in nature and last only as long as necessary. Once the exercise is completed, they will revert to their previous use. No off-installation recreation areas will be affected.

#### D. Infrastructure

## 1. Water and Sewer Systems

For the most part, military installations in the southeast have their own water and sewer systems. In urban areas, these systems are linked to the public systems. In the rural areas, wells or local riverine systems are the source of water, with some type of monitoring and treatment to ensure water quality. Installation sewer systems are connected to a treatment plant, providing at the minimum, primary treatment with effluent being discharged to a receiving water. In remote locations, an on-station activity may be served by a septic system. Each installation under the direction of its major claimant is in the process of, or has upgraded its treatment plant to meet state and federal standards



for effluent discharge. Maneuvering units, training on an installation, are required to adhere to installation regulations and service Standard Operating Procedures (SOP) for field hygiene and sanitation. This SOP requires that the minimum acceptable sewage disposal facility for personnel concentrations engaged in field training exercises (FTX) is the chemical toilet or concrete collection vault. Maneuvering units may employ slit trenches, pit latrines, urinal pits, straddle trenches or "cat holes" in accordance with the appropriate component field hygiene and sanitation manual, and installation regulations, as dictated by exercise play. However, host installations' directives will govern procedures in all cases where conflict may arise.

## 2. Solid Waste Disposal

Solid waste generated by the exercise components will be collected and disposed of in accordance with host installation procedures. In all instances, these procedures require that all solid wastes be collected and disposed of in a sanitary landfill. In most cases, the landfill is located aboard the installation. Each installation has specific guidelines pertaining to the logistics of the trash collection system (e.g., G.I. cans, dumpsters, or trash bags) including the responsibilities for delivery to the landfill. It should be noted that no installation allows disposal of solid wastes outside the landfill by burial, burning or other means. UW forces may bury their solid wastes when no other means of disposal is available. Appropriate field manuals will be followed to ensure that UW wastes are buried at sufficient depths to preclude animals from detecting and uncovering the disposal pit.

#### 3. Utilities

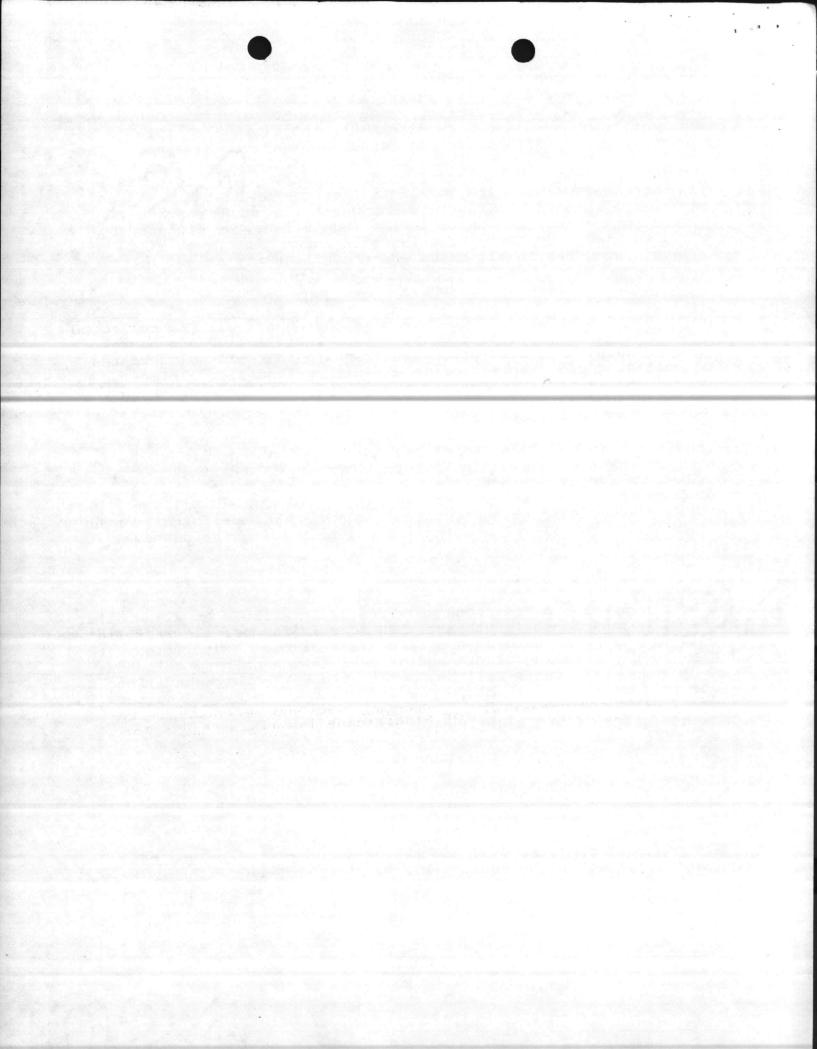
Electric power and telephone services are available at all military installations in the southeast. In some instances, the installation supplements power purchased from private or public utilities with peak load generating plants and/or operates on on-base telephone systems. Field units will be operating under combat conditions and thus will require mobile power sources. Field headquarters, particularly, will utilize field generators to power communications equipment and lighting.

## IV. Environmental Consequences

## A. Physical Environment

## 1. Geology

The proposed exercise will not have any impact on the geologic formations within the Coastal Plain. This determination is based on the small scale of actual field maneuvering and related military



activity and the fact that no large scale, concentrated or high explosive bombing or bombardment is planned, nor is any major construction activity planned in support of, or as part of, the exercise.

## 2. Topography

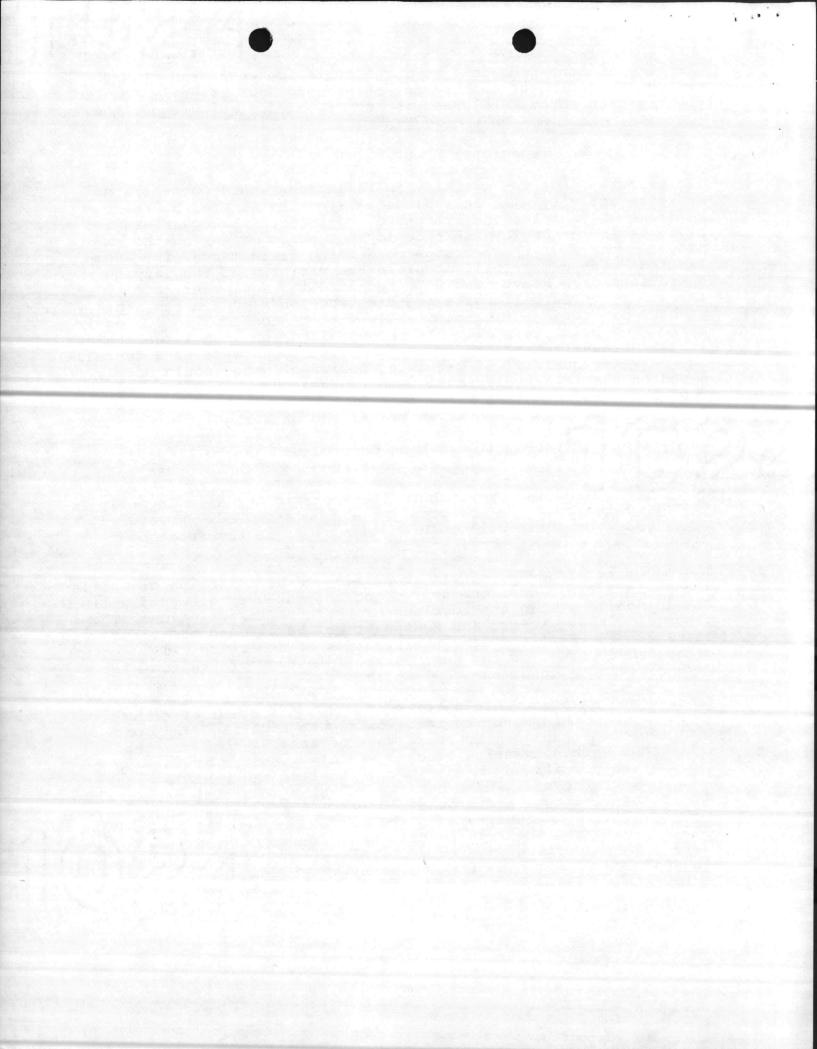
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The topography of the military installations where concentrated exercise activity will take place will not be altered by the movement of vehicles and troops to and from the headquarters bivouacs in the deployment/redeployment phase or during the employment phase of those troops conducting field maneuvers. limited beach damage will occur in the vicinity of the landing operations from heavy trucks, cargo handling equipment, and tracked vehicles. If soils are disturbed on sloped areas, the problem of erosion of exposed soils will be accelerated during periods of heavy rainfall. If uncontrolled, or on a large scale, localized adverse impacts to the topography, as well as a decrease in the water quality, of receiving bodies of water could occur. Based on the relatively small number of maneuvering units and the fact that training maneuvers, including bivouacs and engineer training, occur on the host installations on a regularly scheduled basis, with seemingly little significant adverse effects on topographic features, it has been determined that no significant impact on topography will occur as a result of the proposal.

In sum, the exercise is neither site specific nor site intensive to the degree that the topography would be affected. However, some impact on soils will occur as described in the subsequent paragraphs.

The majority of SS-81 activity consists of the insertion of mobile troops in a field environment. Component maneuver elements will remain mobile within the confines of the host installations. The passage of heavy trucks and equipment to the bivouac areas and elsewhere in the field from their points of departure will be over established roads for the most part. This type of traffic will have a minimum impact on local soils.

Tracked and wheeled vehicle off-road movements by maneuvering units do have the potential for significant localized and long-term impacts to soils. However, most of the off-road movements will occur within existing tracked vehicle maneuver areas. In those areas not already maintained as trails, the vehicle tracks will compact the soil and crush the existing stabilizing vegetation consisting of shrubs and ground covers. In some areas, particularly high traffic or maneuver areas, the surface layer will be seriously damaged, exposing the less fertile sandy subsoil which is less capable of supporting vegetation. In areas where the vegetation is destroyed or damaged, the loose soil will be subject to the



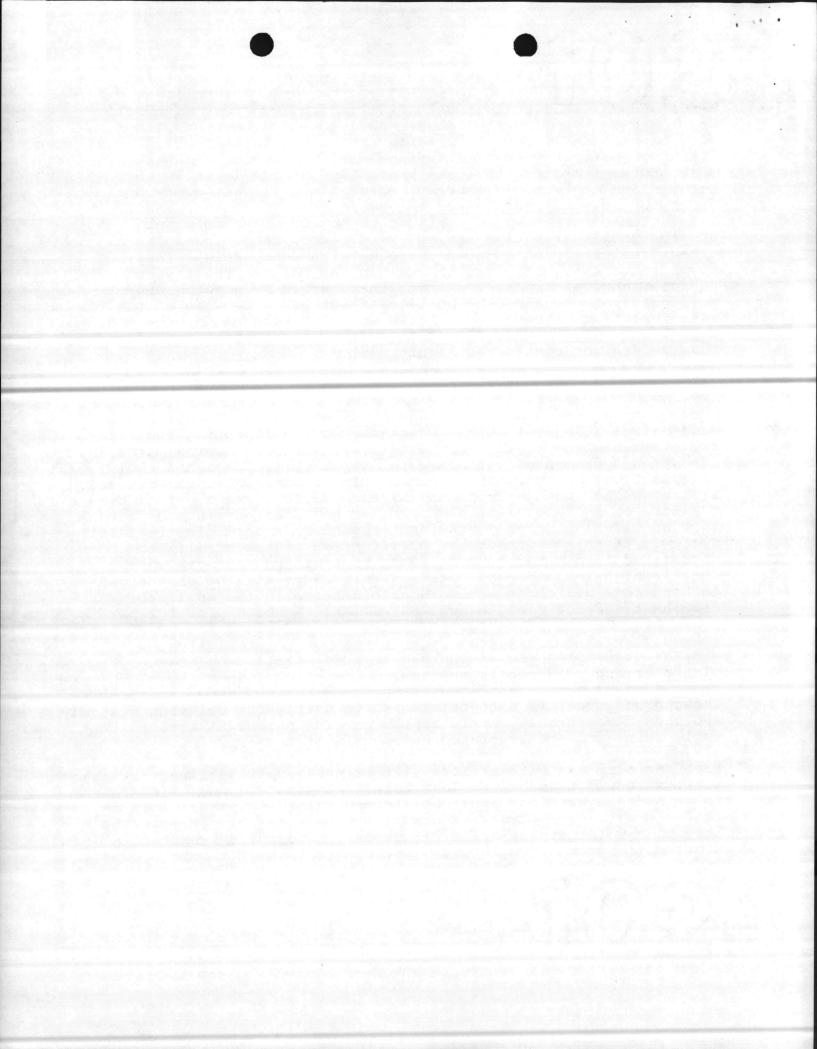
erosive effects of wind and rain until such time as sufficient vegetation has recovered to stabilize the soil. Prevailing winds and rainfall will tend to fill in the low areas with soil until vegetation is established. As vegetation develops, there will be a tendency for stabilization of the ruts to occur. without repair, the scarred surface could become a permanent mark on the terrain. In areas where the surface layer is destroyed and the subsoil exposed, natural stabilization may not occur for several years after the exercise. In sloped areas, the disturbed areas would continue to be subjected to water erosion until corrective actions were taken, resulting in increased siltation of adjacent streams with every rain. to preserve the ecological status quo, as well as the tracked vehicle maneuver areas, repair to these areas by grading and/or seeding may be required by host installations. Because of the relatively low mileage per vehicle in an off-road mode, the total impact on soils as a result of the exercise, although considered adverse, is not considered significant.

#### 3. Groundwater

Troops operating in catonment areas will use existing water and sewage facilities. In some locations, water dispensing facilities are available for field headquarters who will use approximately 60 gallons per man of potable water per day, field elements will require 5 gallons per man. In other locations, water primarily will be either brought from an existing source (water point) by trailer, or in remote instances, water could be obtained on-site from an existing water course and treated by a portable treatment If this is the case, purification equipment will not be backwashed into water courses since backwashing produces water that is high in suspended solids. This water will be discharged to a soakage pit constructed in accordance with the applicable component service field manual as will all soakage pits for personal hygiene and other "grey" water. Sewage generated by bivouac personnel will be collected from "porta potty" facilities or similar structures and discharged to the installation sewage plants or approved septic systems.

These procedures are not anticipated to overly tax existing systems and should essentially minimize the adverse potential impacts that could occur from concentrated personnel.

Maneuver elements will utilize slit trenches, pit latrines, urinal pits, straddle trenches or "cat holes" constructed and maintained in accordance with the applicable component field manual. In no instance will these types of structures be sited closer than 200 feet to a water source or in wet areas. Also, slit trenches, etc., will not be used in areas where more than 50 troops occupy an area for longer than 24 hours.



Some localized degradation of surface waters will occur from the natural purification process of soakage pit and straddle trench leachate. The distance restriction from water courses should provide ample protection of surface water quality.

Refueling of vehicles and aircraft by tankers, fuel pods, bladders and five-gallon cans all provide a potential for petroleum, oil and lubricant (POL) spills. In all instances of fuel storage and vehicle refueling, the component field manual for the handling of POL products will be complied with. This will include the construction of an impervious berm around fuel bladders or tanks with a 500-gallon or more capacity to contain fuel if a mishap were to occur. Any POL spill greater than 25 gallons on land or any spill which produces a visible sheen on a water surface will be reported to the cognizant installation commander to ensure implementation of the Installation Spill Control and Countermeasures plan.

The operation of vehicles over vegetated terrain will result in increased sediment loads and turbidity from run-off in receiving waters during periods of heavy rainfall. This impact will continue to exist after the redeployment of personnel until the affected areas are revegetated. If natural recovery is allowed, with no impetus in the form of mulching or seeding, then the process will minimally require one complete growth cycle, i.e., surviving vegetation must grow, go to seed, and the seeds must take root. Dependent upon the type of groundcover, this may require in excess of one year.

The extent of surface water contamination or the degree of degradation is impossible to predict. However, because of the short duration of the exercise and the procedures to be taken to preclude uncontrolled contamination, surface water degradation, if it occurs, will be localized and temporary, in that it is not expected to persist for a lengthy period.

#### 4. Climate

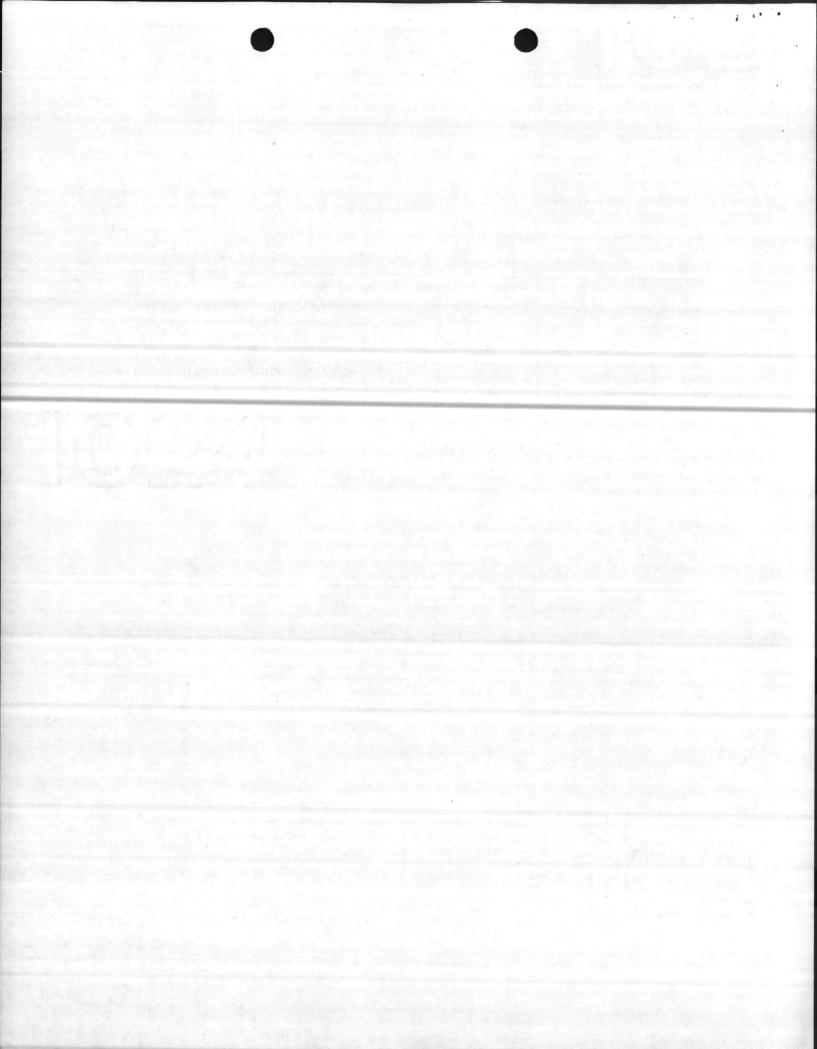
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Based on the relatively small scale of the exercise, the equipment that will be utilized, the large maneuver area, and the objectives of the exercise, the climate of the area will not be affected.

# 5. Air Quality

Air contaminants will be generated by weapons firing, vehicular usage, and small generating activities.

a. Weapons. Oxides of sulfur and nitrogen are added to the atmosphere by weapons firing in amounts which cannot be quantified because of the dispersion of troops throughout the area. Considering the restrictions on live ordnance, the nature



of the area wherein firing is likely, air volume and movement, the type of weapons used, and the intermittent nature of the firing, it is considered unlikely that these contaminants will have a measurable effect on ambient air quality outside a radius of several hundred feet from the firing points.

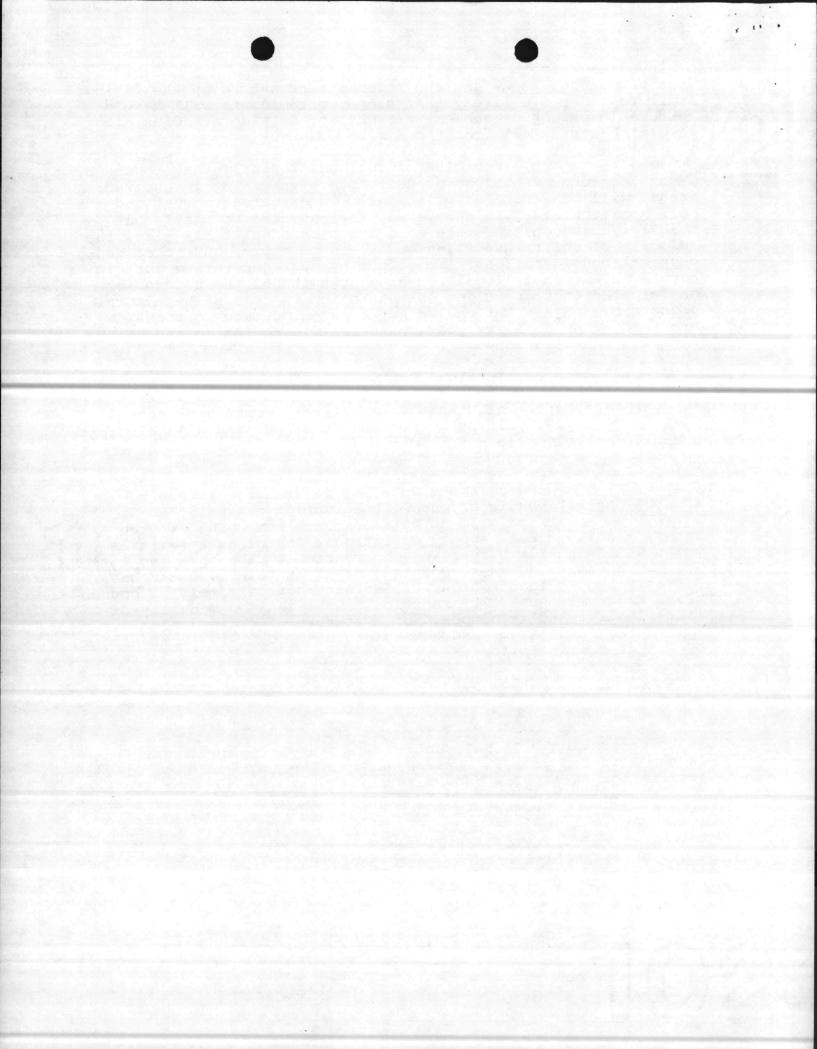
b. Vehicles. Dust, particularly that caused by trucks, tracked vehicles, or helicopters operating in unpaved areas, will be generated principally in dry areas. Dust and other solid particulates, if generated, are expected to settle out quickly; although, the rate is a function of particle size, the velocity of the transporting media, temperature, and other geophysical considerations. No effect by dust generating activities beyond an extremely localized area downwind of the source is anticipated. Dust settling on vegatation is removed by natural processes, and has not caused any apparent damage to roadside areas adjacent to heavy year-round traffic routes on any of the affected installations.

c. Internal Combustion Engines. The employment portion of the exercise will be the period of maximum use of support equipment. Pollutants from internal combustion engines will be widespread, in both time and location, and will dissipate under normal climatic conditions.

d. Smoke Generating Activities. It is estimated that as many as 100 HC smoke pots may be used for screening friendly operations from "enemy" observation during Solid Shield 81. These munitions will be utilized from screening of drop zones, landing zones, supply operations, and other activities, which would benefit by denying observation to the opposing forces. The ABC-M5 pound HC smoke pot is a metal container, 8½ inches in diameter and 9½ inches high, filled with approximately 30 pounds of HC smoke mixture. The munition can be ignited manually or electrically. HC is composed of a mixture of grained aluminum (A1), zinc oxide (Zn0) and hexachlorothane (C\_Cl). Percentages by weight are as follows:

Al 6.88 Zn0 46.66 C<sub>2</sub>Cl<sub>6</sub> 46.66

Smoke generation will have only a temporary, insignificant impact in the affected areas. These areas will be isolated from civilian facilities, activities, and major highways. The size of the area affected will be determined by micrometerological condition at the time of employment and the number of smoke pots employed at any one time. Maximum affected area at any one time will be approximately 1 km<sup>2</sup>. The effective smoke screen from one smoke pot would extend approximately 300 to 500 meters.



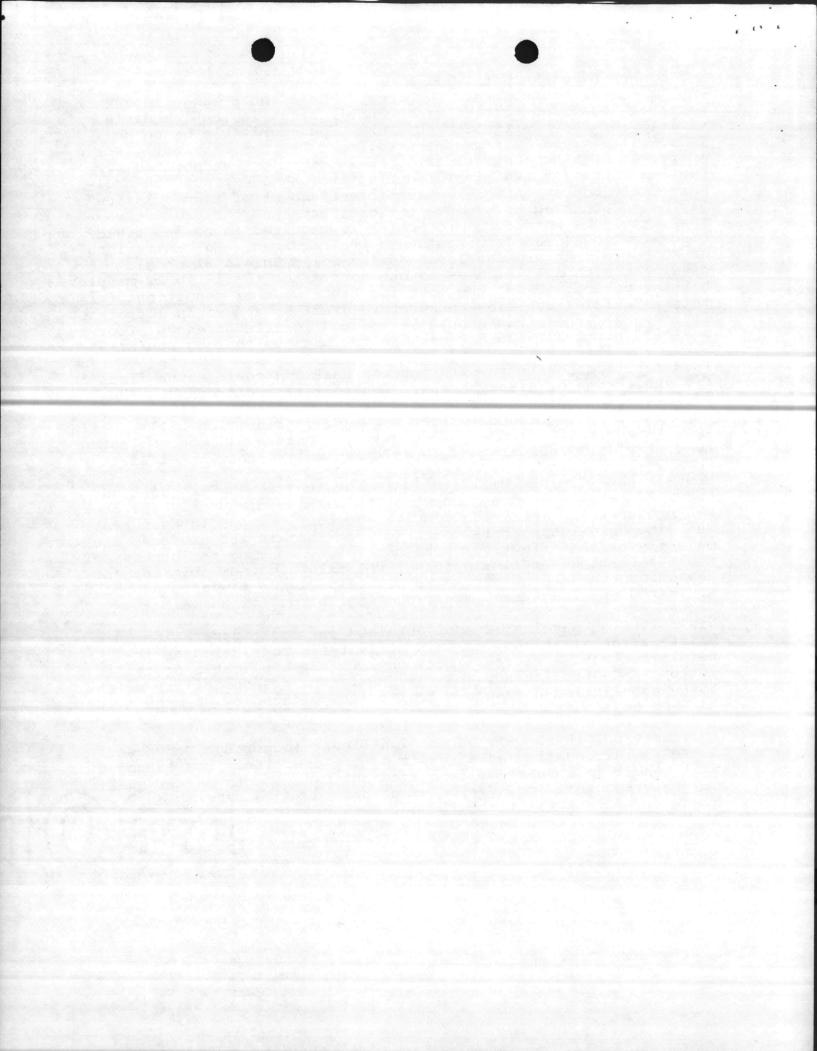
Employment of smoke pots will have an insignificant long-term impact on the environment. There will be a short range impact on a highly localized portion of the environment in the immediate vicinity of the munitions. HC smoke produces little or no physiological effects in low concentrations. It has a slightly acrid In high concentrations, such as might be encountered very near an operating munition or during prolonged exposure to ordinary field concentrations, a sufficient amount of zinc chloride may be encountered to produce toxic effects and the protective mask should be worn. No protection is required in normal field concentrations. No decontaminants are required. Concentrations of HC smoke that are developed during Solid Shield 81 should dissipate within 45 minutes to one hour after the 12 to 22-minute burning period. Under the most favorable weather conditions for this material (inversion temperature gradient and winds less than five knots), the smoke should be reduced in effectiveness after one-half hour, but could remain in the area up to four hours.

This munition does burn with intense heat and could cause fires in dry underbrush or grassy areas. Controllers and troops in the vicinity, including the operators of the munition, will observe them until extinguished. After burnout, the munition will contain small amounts of solid aluminum oxide. Residue will be collected by controllers and disposed in an existing sanitary landfill.

Most of the HC smoke will dissipate into the atmosphere with no known long-range adverse impact. The burning mixture in the smoke pot produces zinc chloride (ZnCl<sub>2</sub>), carbon (C), and intense heat. The zinc chloride absorbs moisture from the air and produces the majority of the effective smoke particles. During the process of smoke formation, small amounts of volatile aluminum chloride and hexachloroethane are lost as vapor. Experience to date has not indicated any long-term impact on fish, birds, or animals.

Air pollution permits are not obtained for smoke generation on military installations, as this activity is considered an intermittent mobile source. Liaison with the applicable State Air Pollution Control Agency and the EPA is the responsibility of the host installation commanders and is accomplished by them on a case-by-case baiss.

In summation, there will be no significant long-range, adverse impact on air quality as a result of the exercise. The exercise will result in some minor localized adverse impacts on air quality due to weapons firing, vehicular usage and smoke generation. However, these activities will not result in a degradation of overall air quality, based on the fact that they are short-term in nature and do not exceed the assimilative capabilities of the



#### B. Natural Environment

The impacts on the natural environment that result from the exercise will primarily consist of the destruction of natural habitat and food supplies that will occur from maneuver troops, the Amphibious operation, and the Field Headquarters/Command Posts.

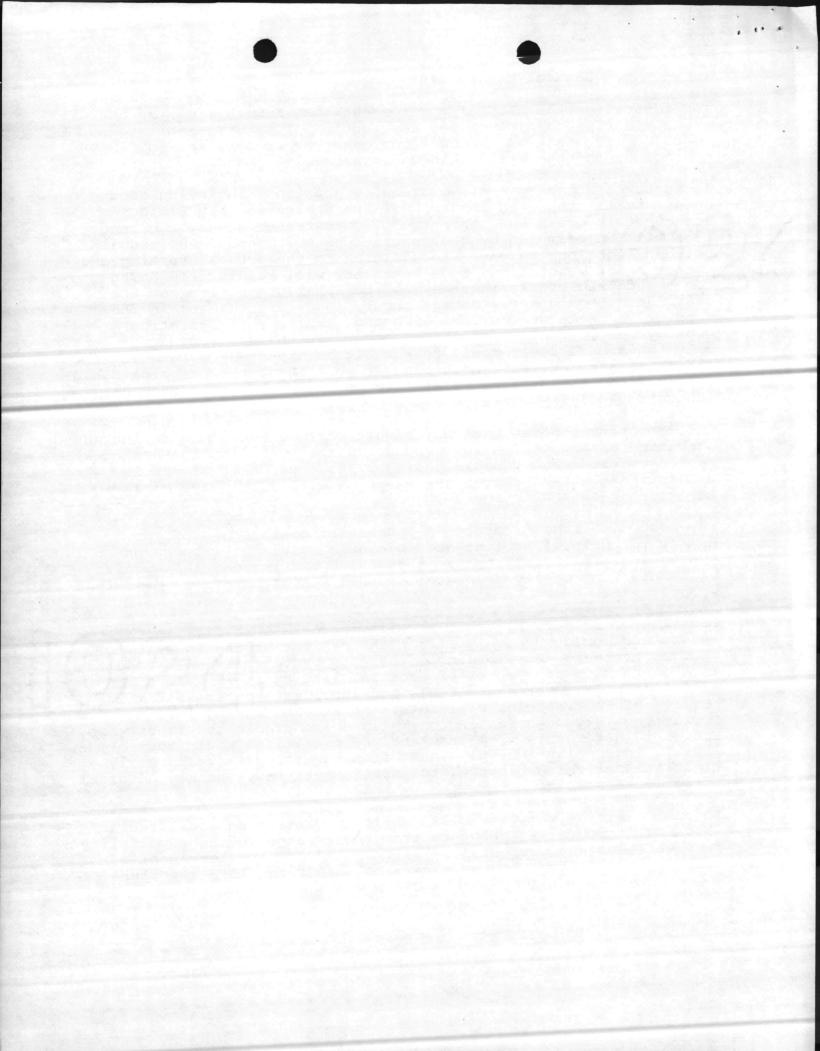
In maneuver or heavy traffic areas, vegetation, including ground cover, small trees and shrubs, will be destroyed. In Field Headquarters areas and other troop concentrated areas, the vegetation will be trampled by the repetitious movement of individuals between functional areas. In addition to the actual crushing and uprooting of vegetation, some mortality will result from damage to roots and tree trunks that may not be apparent until after the exercise. Should heavy damage occur, long-term changes in the vegetative patterns could be expected. While the vegetation destroyed will consist of ground cover, shrubs and some trees, only the ground cover could reasonably be expected to reestablish itself in a relatively short time frame. Thus, the exercise could result in a less diverse vegetative cover in the areas of concentrated activity.

One temporary benefit that may result is that there may be increased sprouting of vegetation in response to the soil disturbances caused by troop and vehicle passage. However, this effect is unquantifiable even though the exercise will take place early in the growing season.

The most significant impact on fauna will be the loss of, or damage to, natural habitat and food as a result of impacts on vegetation. It is anticipated that avian and terrestrial species will only temproarily relocate to other habitat areas if disturbed by personnel.

Crossing of streams by vehicles will increase turbidity in the waters and could adversely affect the habitat of the aquatic species present. Any fording of streams by vehicles will result in the creation of avenues of erosion, leading to increased siltation of the streams. Fuels and lubricants on the exterior surface of the vehicles will enter the streams during fording operations. Although washing operations are prohibited in streams, soaps and detergents from unauthorized operations would add to the impact. This pollution, plus that from runoff, will temporarily alter the natural habitat of the species present, and may adversely affect some species.

In sum, exercise activity will result in disturbing some species which may temporarily relocate from their range and some mortality from vehicles and personnel is anticipated for the less mobile forms of wildlife. However, the impacts on the flora and fauna of



the areas of concentrated activity are not considered to be either of significant magnitude or duration to upset or significantly alter the ecological balance in the training areas.

### 1. Threatened or Endangered Species

The accidental destruction or disturbance of the habitat of the endangered or threatened species remains a reality. However, the likelihood of appreciable destruction or alteration of endangered species habitat occuring, in light of the precautions taken by host installations wildlife management personnel, is considered remote. Further, should an incident occur, it is considered that damage to habitat would be minimal and would not threaten the continued existence or propogation of the species. It is recognized that the possibility of some mortality to a small number of endangered or threatened species is possible. (Details in Classified Section)

#### C. Socio Cultural

#### 1. Economy

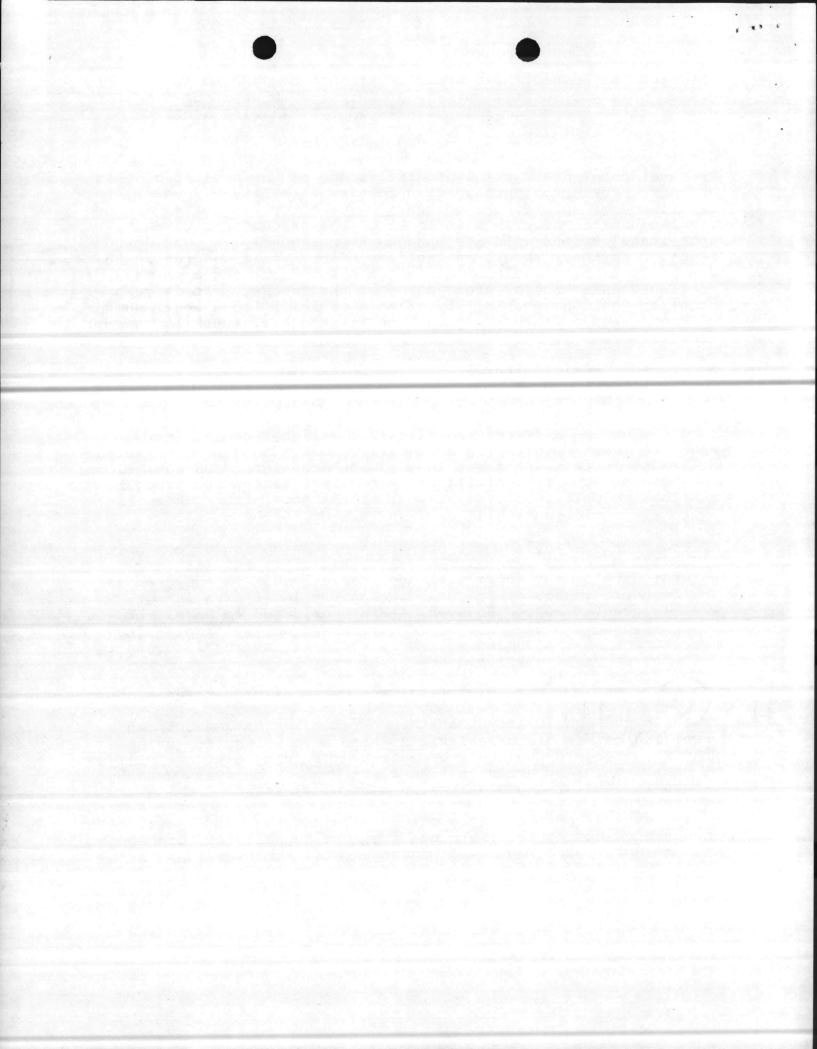
Land use on the affected installations will not be altered, in that the location of Field Headquarters units and the maneuvering of troops in training areas is a common occurance. UW operations that may occur off-post will, if effective, remain unnoticed by the local populations. No segment of the population other than exercise participants will be displaced by the proposal.

No residential displacement or permanent disruption of community life will occur as a result of Solid Shield 81, nor will any subsequent development activities occur as a result of the proposal. The economic impact of the exercise on the local area is not readily quantifiable. However, it is considered to be slight, in that personnel involved in the exercise are wholly transported and supported by their commands. Thus, there are no requirements to purhcase goods or supplies from local sources.

# 2. Parks, Historical and Cultural Properties

There is the possibility that the exercise may damage unknown archeological or historical sites which have scientific value. This is considered unlikely because the Training Exercise will not be occuring in any areas that have not been extensively used by troops for training evolutions on a regular basis.

If any site of potential historical or archeological importance is encountered during the exercise, the host installation commander will be notified. The field commander will order actions in the vicinity halted and the area marked. The installation commander,



in turn, will than comply with the applicable DOD and component procedures to determine the significance of the find.

No parks or recreation areas will be adversely affected by the activities that occur during the exercise. Some on-post recreational areas located in maneuver areas may be closed temporarily because of military activities that could present a safety hazard to individuals. These closures will be temporary and primarily will affect active duty personnel and their dependents only.

### D. Infrastructure

2 ex 1

### 1. Water and Sewer Systems

The impact of the water and sewer systems will consist of additional water to be provided and possibly additional sewage to be treated at those host installations that will realize an increase in personnel who will use existing sewage systems. The increase in water demand or sewage load will not exceed the capacity of these facilities; particularly in light of the fact that most ashore participants will be deployed in the field.

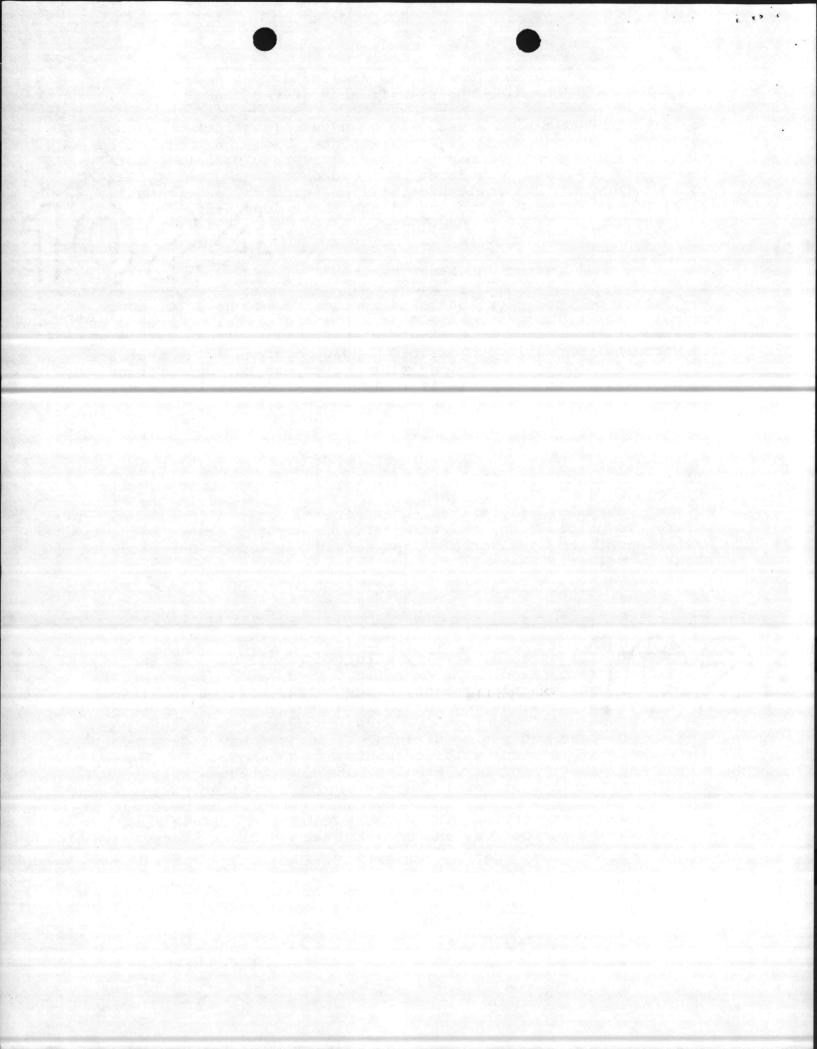
## 2. Solid Waste Disposal

Waste material will be compacted and buried at approved host installation land fill sites. No debris, other than spent small arms blanks and UW forces refuse, is to be abandoned in the field. However, as previously stated, unauthorized waste disposal may occur. To preclude any health hazards occurring, base commanders will inspect the maneuver area and detain any troops necessary to properly police the area.

## E. Other Potential Impacts

#### 1. Wildfires

The possibility of an accidental wildfire resulting from the exercise is recognized. The exercise period, as proposed, falls before the peak wildfire season; nevertheless, extreme caution is imperative as wildfires may seriously affect the environment of the areas consumed, and require years for nature to restore the area to pre-fire habitat conditions. Wildfires may reduce available resources, destroy wildlife habitats, endanger life (human, animal and plant), increase erosion potential, reduce nutrients, increase air pollutant levels, alter wildlife habitat patterns and generate additional primary and secondary effects too numerous to list. Close coordination with Federal and State officials, and non-government agriculture and forestry personnel is underway in pursuit of fire avoidance. Fire fighting programs geared to the exercise are the responsibility of the host installation. In the



final analysis, the potential for forest fires will be determined by the host installation forest fire index and the SOP of the installations will be adhered to.

#### 2. Noise

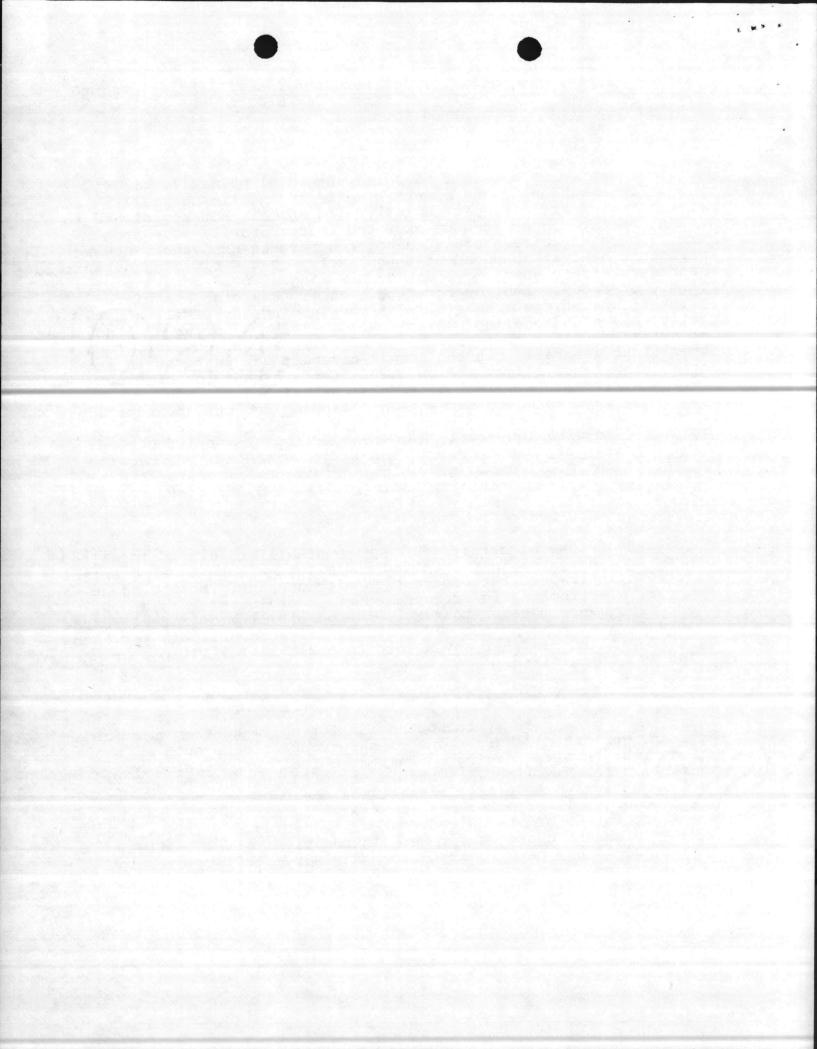
Noise generated as a result of Solid Shield 81 primarily will result from vehicular and aircraft activity and firing small arms blanks. Animals, particularly wild animals not accustomed to human generated nose, can be expected to temporarily move from areas where exercise associated noise generates annoyance. However, permanent habitat abandonment is unlikely, thus minimizing potential secondary effect which movement to new ranges would generate (i.e., overpopulation, overgrazing, etc.). Exercise associated aircraft operations from airfields and landing zones will generate relatively high localized noise levels. This may prove an annoyance or nuisance factor to personnel in adjacent areas. However, such operations generally fit the normal airspace use patterns in the Low-level flight (below 1,200 feet), except for high performance aircraft simulating attacks on assigned targets, are generally restricted to take-off and landing evolutions and flights by helicopters and observation aircraft. These "target runs" generally require low-level, high-speed flight for brief periods over a relatively small area in the target vicinity. The remainder of the flight profile flown by high performance aircraft is generally accomplished at altitudes in excess of 3,000 feet.

# 3. Radio Frequency Emissions

Operation of communication/radar equipment will result in localized short-term increases in nonionized radiation. There is a potential electromagnetic interference problem with nonparticipating agencies; however, electromagnetic frequencies are coordinated with a DOD agency frequence manager to reduce the possibility of interference. Observation of appropriate safe lateral distance criteria for each emitter will ensure that any hazard to personnel, wildlife, or property is minimized.

## 4. POL Spills

In spite of precautions, the potential for spillage from an accident exists. Certain discharges due to safety practices, such as those which might involve purging contaminated fuel systems also are possible. In this light, it should be noted that Department of Defense Directive 5030.41 series states the DOD components will not discharge oil or other hazardous materials into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the contiguous zone. In addition, oil and oily wastes should not be discharged from any Navy activity or ship



within the "prohibited zone", i.e., within 50 miles of the coastline of the United States or its possessions. Petroleum, oil, lubricants, and material requirements are an important part of every action involving personnel and equipment. In-place facilities and temporary fuel farms ashore will be used.

## 5. Damage Repair

Despite the general precautions noted, accidental damage is possible. Experience in similar exercises has indicated that the effects of such damage can best be minimized by augmenting the basic precautionary measures with damage repair procedures peculiar to the exercise. The repair and clean-up procedures followed by exercise participant troop commanders and the attendant use of participating engineer personnel will minimize the effects of accidental damage to military installations. Additionally, damage to roads, pine plantings, drainage structures, and other natural or man-made features will be expeditiously reported, via the nearest telephone or radio facility, to the appropriate host installation's Public Works activity.

The states and/or area development and planning commission and/or local governmental units in the areas where the proposed exercise will take place all practice some form of land use planning and controls. These controls range from state Coastal Zone Management programs through area-wide programs, down to local zoning and specific local ordinances. The doctrine of Federal Supremacy exempts the installations from these programs where the Congress has required adherence to state legislation, as is the case in some environmental legislation, such as the Clean Water Act. Other Federal legislation, such as the Endangered Species Act, Historic Preservation Act. etc., is applicable and will be adhered to.

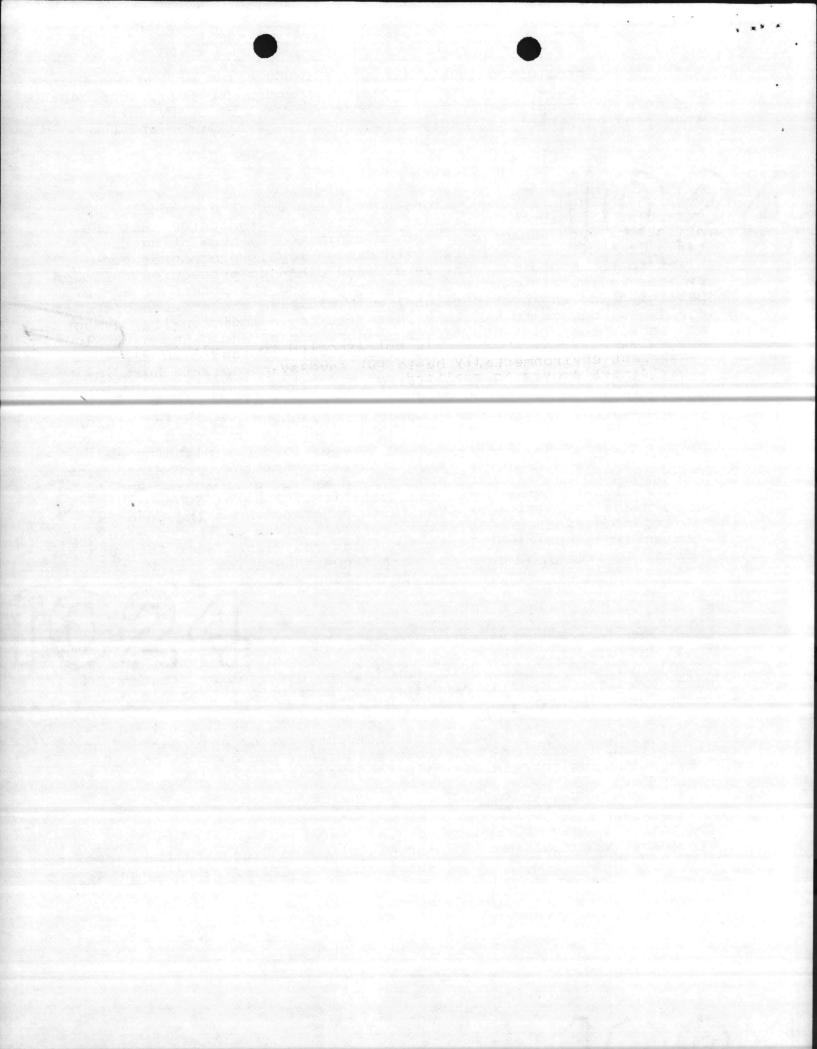
### F. Indirect Effects

Long-term indirect effects include the increased ability to develop realistic CINCLANT plans, higher levels of proficiency for the combatants, and greater understanding and cooperation between the Joint Services. Similar benefits also accrue to the participants in the exercise.

Exercise activity will not preclude future use or enjoyment of any significant natural or depletable resources; nor does it commit these resources to a large-scale requirement.

# G. Energy Requirements

The energy resources required by the exercise, as well as the attendant resources required for planning and executing the exercise, will be consumed should the exercise take place as planned. Fuel



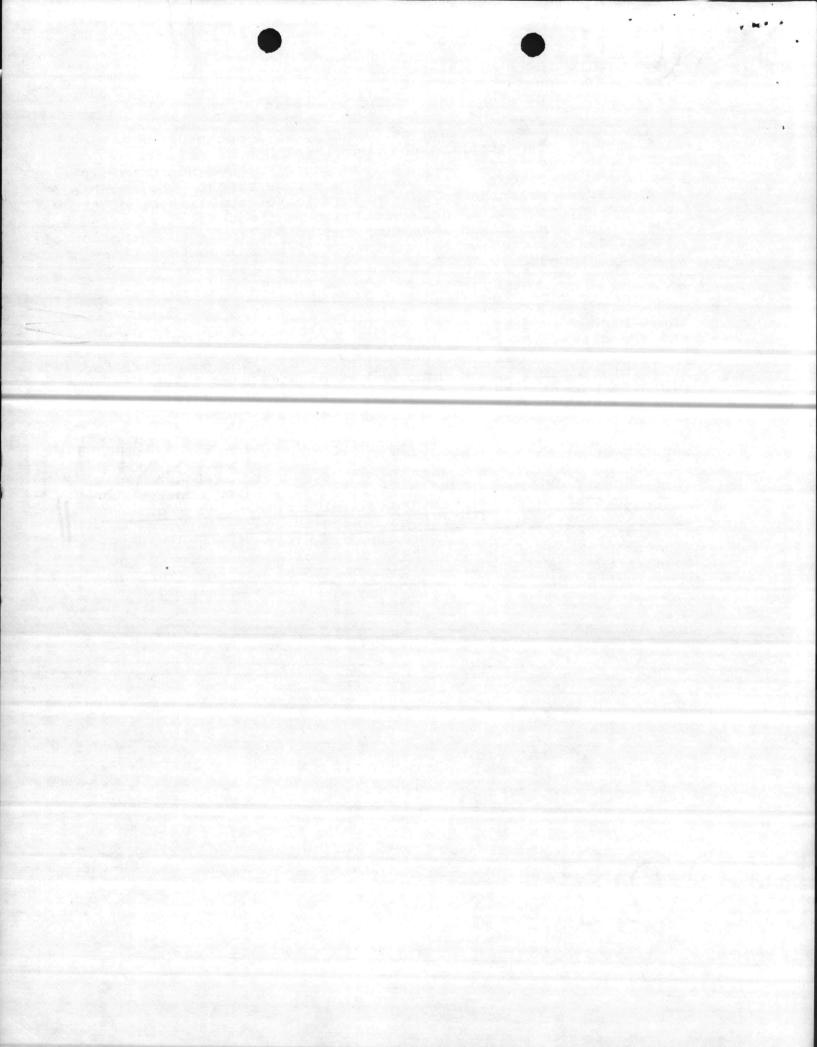
expended for the exercise purposed occurs within the framework of overall component service and Department of Defense energy allocations and programs and is not in excess of these allowances.

In summation, the exercise, as planned, will not produce a significant effect curtailing the beneficial use of natural or depletable resources. Further, the exercise does not constitute a commitment of resources to some future requirement. Solid Shield is an elected exercise to test and evaluate capabilities of the Atlantic Forces, and as such, its need is frequently evaluated and a determination made on scenarios and scheduling. Conservation of natural and depletable resources is an integral part of this planning process.

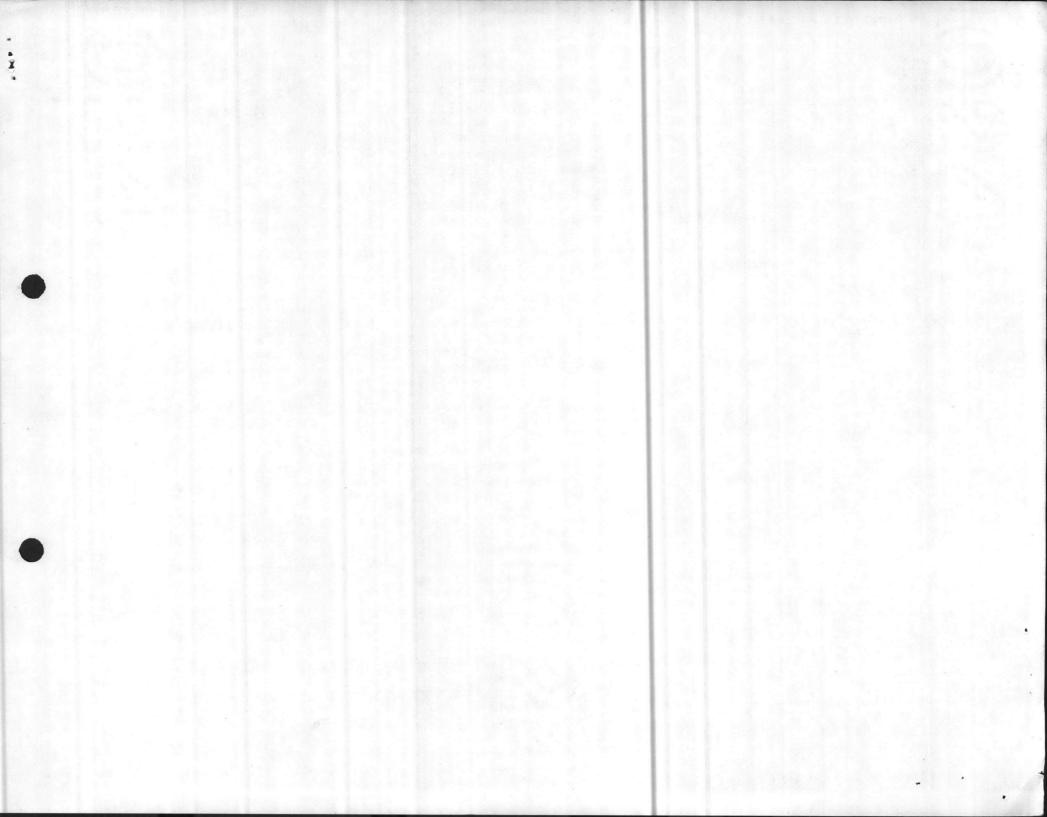
# V. PROPOSAL EVALUATION AND CONCLUSION

The proposed exercise as described and assessed in this document, and the classified Annex, is not expected to result in significant environmentally based controversy. The potential for accidental damage is realized and steps have been taken to minimize both accidents and the probability of significant environmental damage occuring as a result of them.

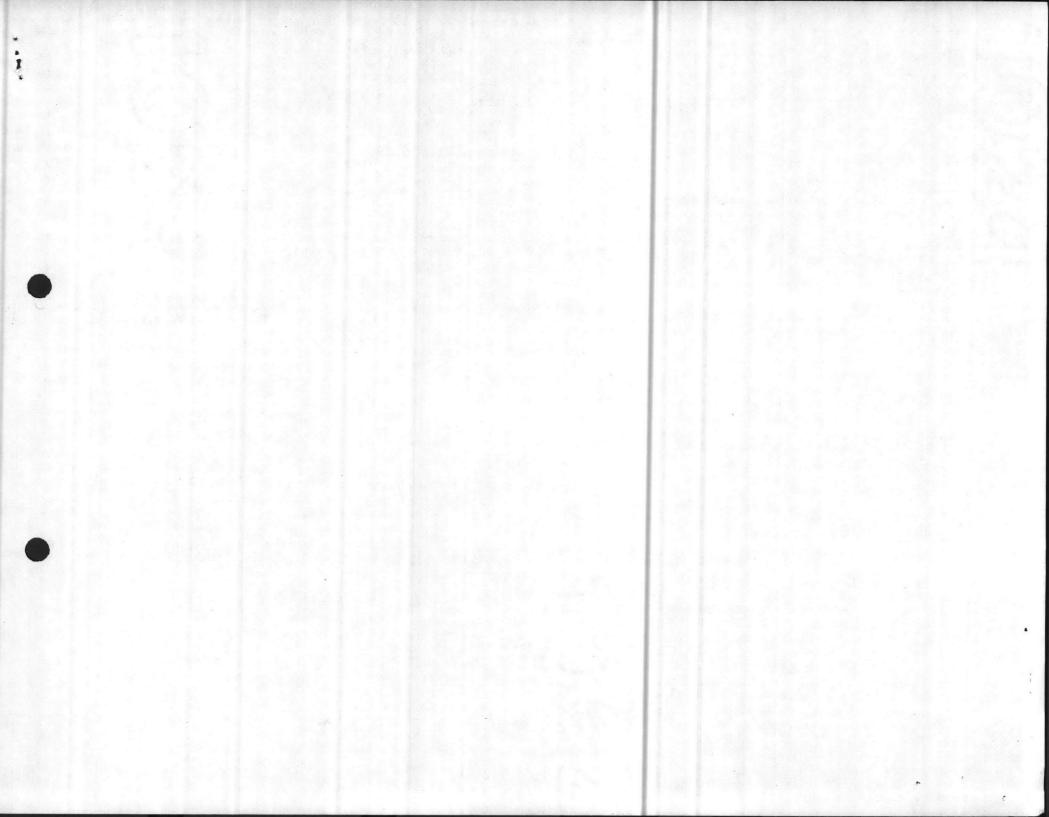
Based on this evaluation and the assumption that the continuing assessment of the proposed action will fail to bring to light any probable significant impact on the quality of the human environment, or substantial environmentally-based controversy, it is determined that no environmental statement is required and a finding of no significant impact is appropriate. However, the indicated actions to be taken to minimize the environmental impact of the exercise and the actions cited to mitigate any impacts that do occur are to continue to be pursued, through the exercise period, until damage repairs are completed.



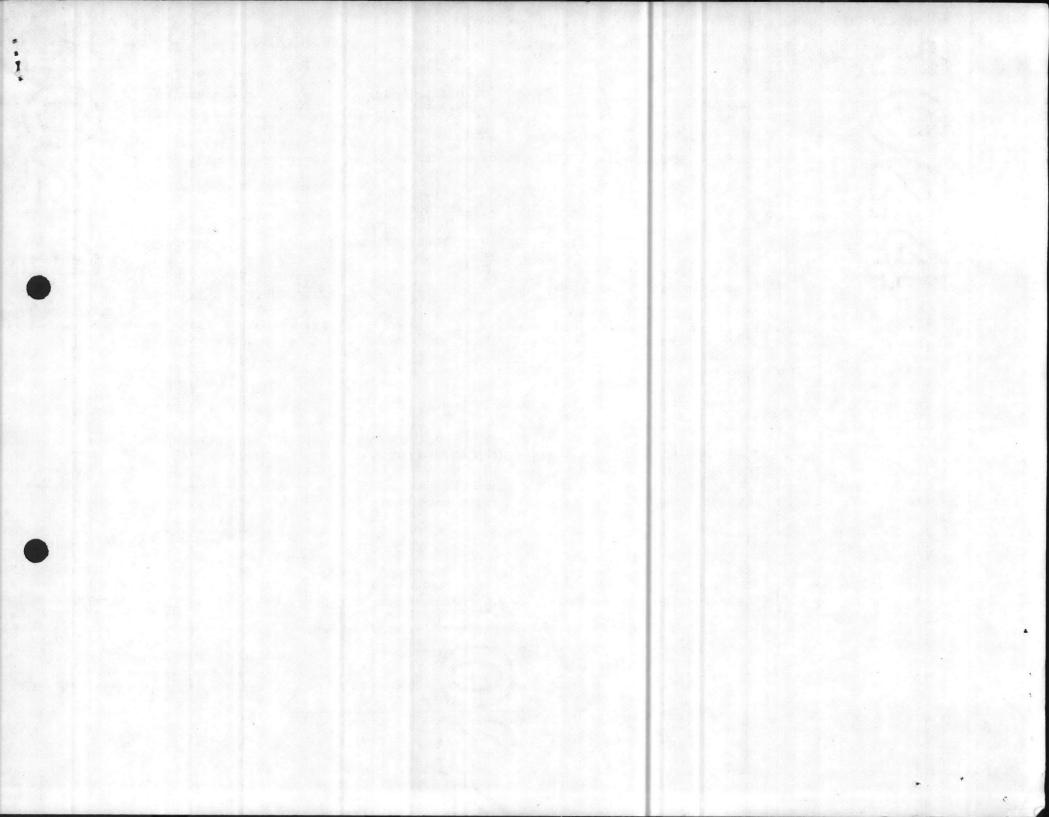
SPECIES	PREFERED HABITAT	STATUS
BUMELIA THORNEI Buckthorn	Dry live oak woods and scrub oak sandhills	Endangered
CALAMOVILFA BREVIPILIS Riverbank Sandreed	Bogs and savannahs	*Threatened
DIONAEA MUSCIPULA Venus' Fly-Trap	Wet sandy ditches savannahs open bay margins	*Threatened (exploited)
ELLIOTTIA RECENOSA Elliottia & Georgia Plum	Sand and oak ridges, evergreen hammocks in xeric areas	Endangered
EUPATORIUM RESINOSUM Resinous Joe-Pye-Weed	Lowland & upland bogs	*Threatened
HABENARIA BLE PHARIGLOTTIS White Fringed Orchid	Peat soils of wet bogs and Savannahs	*Threatened
HABENARIER CILIARIS Yellow Fringed Orchid	Solitary in bogs and pocosin margins	*Threatened
HEXASTYLIS LEWISII Lewis' Heart Leaf	Deciduous woods, pine forests, or low swampy woods	*Threatened
ILEX AMELANCHIER	Sandy swamps, wooded streat/ river banks	*Threatened
KALMIA CUNEATA White Wicky	Sandy, peaty soils, borders or thickets & shrub bogs, pocosin ecotones	Endangered
LARRACENIA FLOVA Golden Trumpet, Flycatchers	Acid soils of open bogs savannahs and low areas of	*Threatened



SPECIES	PREFERED HABITAT	STATUS
LITSEA AESTIVALIS Pond Bush Bond Spice	Margins of swamps and	*Threatened
LYSIMACHIA ASPERULAEFOLIA Rough Leaf loosestrife	Upland bogs	Endangered
NESTRONIA UMBELLULA Nestronia or Bog Asphodel	Dry Woodlands	*Threatened
PYXIDANTHERA BARBULATA Wells or Sandhill Pixie-Moss	Xeric sandhills	Endangered
RHUS MICHAUXII False Poison Sumac	Sandy or rocky open woods	*Threatened
RUDBECKIA HELIOPSIDIS Black-eyed Susan (uncommon)	Woodland meadows and low ground	*Threatened
SARRACENIA FLAVA Yellow Pitcher Plant	Wet bogs, ditches and savannahs	*Threatened
SARRACENIA MINOR Hooded Pitchers Plant	Acid soils of open bogs, savannahs & low areas of pine flatwoods	*Threatened
SARRACENIA PURPUREA Pitcher Plant; Flytrap	Wet bogs and savannahs	*Threatened
SARRACENIA RUBRA Sweet Pitcher-Plant	Shrub bogs & savannahs	*Threatened (exploited)
SPOROBOLUS TERETIFOLIUS Wireleaf Dropseed	Savannahs & pine barrens	*Threatened



SPECIES	PREFERED HABITAT	STATUS
THALICTRUM COOLEYI Cooley's Meadowrue	Savannahs	Endangered
ALLIGATOR MISSISSIPPIENSIS Alligator	Salt marshes, tidfal streams and estuaries	*Endangered
CALAMINTHA DENTATA Calamentha	Sandhills, sandy oak woods	*Threatened
CARETTA CARETTA Atlantic Loggerhead	Warm ocean water Nests along beach	*Threatened
CHELONIA MYDAS Atlantic Green Turtle	Shoal waters with submarine vegetation	*Threatened
CROTALUS ADAMANTEUS Eastern Diamond Rattlesnake	Sandy pine flatwoods and thick bogs	*Thratened
DENDROCOPUS BOREALIS Red-Cockaded Woodpecker	Primary in longleaf timber types	Endangered
DERMOCHELYS CORIACEA Atlantic Leatherback	Open sea waters along the coast	*Endangered
DRYMARCHON CORAIS COUPERI Indigo Snake	Xeri areas of coastal plain sandhill communities of turkey oak/longleaf pine, wire grass communities	*Threatened
ERETOMOCHELYS IMBRICOTA Atlantic Hawksbill	Reefs and shallow coastal	*Endangered
FELIS CONCOLOR COUGAR Eastern Cougar	Deep swamplands Very infrequent	*Endangered



SPECIES	PREFERED HABITAT	STATUS
FOTHERZILLA GARDINIE Dwarf Witch Alder	Low flat swampy areas and	*Threatened
HYLA ANDERSONI Pine Barrens Treefrog	Shrub bogs, pocosins	*Threatened
LE PISLOCHELYS KEMPI Atlantic Ridley	Shallow coastal waters Casual visitor	*Endangered
MICRURUS F. FULVIUS Eastern Coral Snake	Sandhills, dry pine flatwoods and sandy maritime forests	*Rare/Threatened
AMMOSPIZA MARITIMA Dusky Seaside Sparrow	Coastal marshes Winter migrant	*Endangered
HALIAEETUS LEUCOCEPHALUS Southern Bald Eagle	Sounds and rivers Very few sightings	*Endangered
PASSERCULUS PRINCEPS Opswich Sparrow	Winter migrant along dunes and salt marshes	*Threatened
PELE CANUS OCCIDENTALIS Brown Pelican	Coastal fringe along beach and inlets Summer migrant	*Endangered

<sup>\*</sup> Species on a state list of Endangered Plants and Animals, or which are considered threatened locally by installation wildlife personnel.

