

Col's  
Comments

OPNAV 5216/144 (REV 6-70)  
S/N 0107-LF-778-8097  
DEPARTMENT OF THE NAVY

## Memorandum

DDS  
CAF

DATE: 18 MAR 83

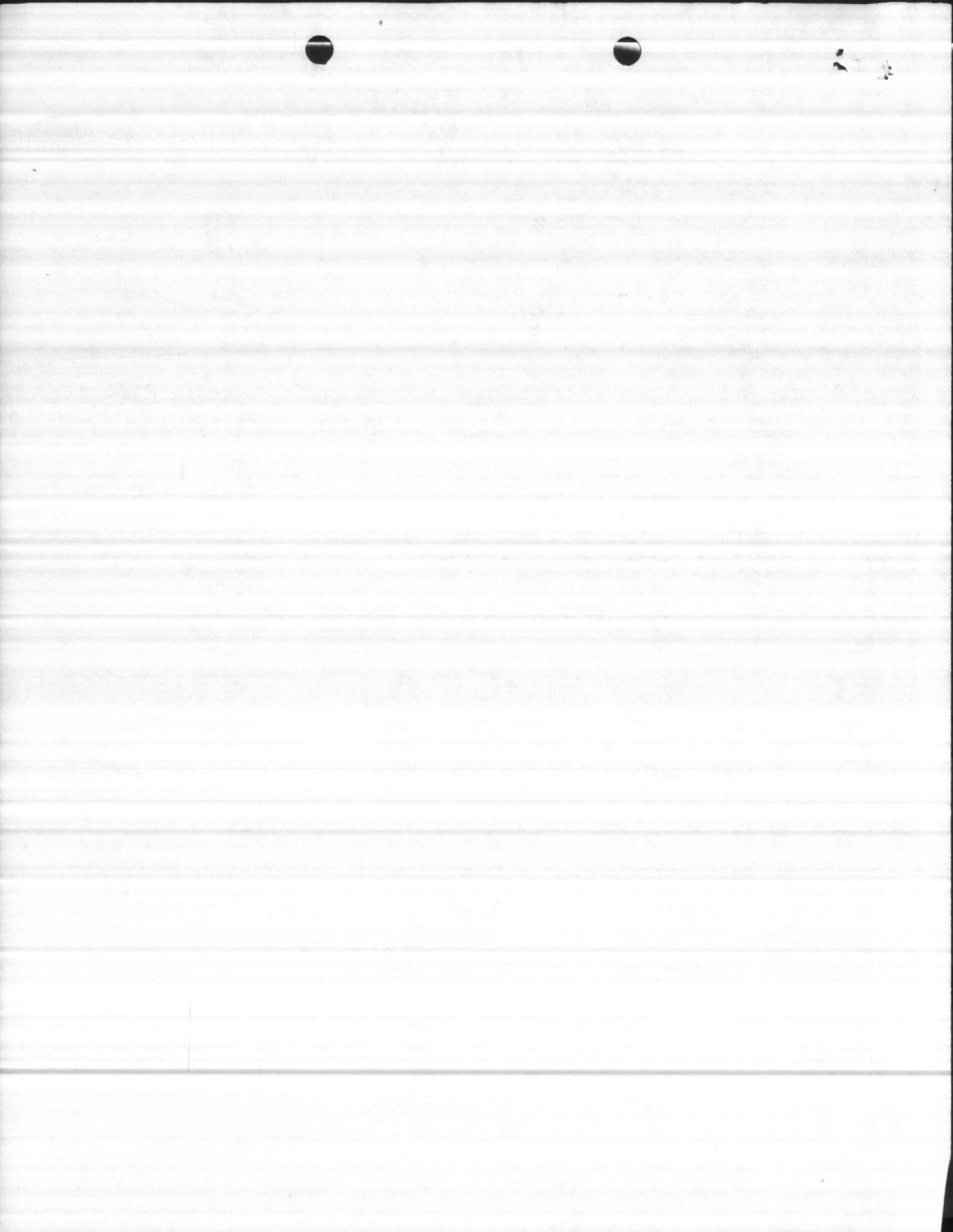
FROM: A C/S Fae

TO: DIR NRIEA

SUBJ:

Here is TRN's comments on our package. I have talked to them " LTCOL SAMS/LTCOL BRUNELLI and COL RUIE AND THEY KNOW that they have to do a flight before they can fire and the area must be clear.

J Marshall



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

NREAD/DDS/th  
11015

1 6 MAR 1983

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

Subj: Protection of Endangered Species in Offshore Waters

Ref (a)

Ref: (a) Section 7, Endangered Species Act

Encl: (1) CG MCB ltr MAIN/CDP/th 11015 of 17 Nov 1981  
(2) NMFS ltr of 23 Nov 1981  
(3) CG MCB ltr NREAD/JIW/th 11015 of 4 Nov 1982  
(4) NMFS ltr of 8 Nov 1982  
(5) CG MCB ltr NREAD/JIW/jc 11015 of 12 Jan 1983  
(6) NMFS ltr of 3 Mar 1983  
(7) Whale Identification Packet

1. The purpose of this letter is to advise that formal consultation has been completed with the National Marine Fisheries Service (NMFS) relative to the impact of live-firing into offshore waters on nationally listed endangered and threatened species pursuant to the reference. Enclosures (1) through (6) document the consultation process. Based on the information provided in enclosures (1) through (6), the NMFS has concurred with Base's determination that current live-firing activity into the offshore waters, as described in enclosure (3), would not affect the subject species which are under NMFS purview. As specified in enclosure (6), NMFS concurrence was conditional with a possibility of reentering consultation if changes in circumstances occur. It is requested that any changes or proposed changes in firing into the subject waters be reported to this office so as to permit continued compliance with the reference.

2. Also, note that enclosure (4) required this Command to provide NMFS with a description of actions to be taken to avoid impact on individual members of the protected species which may be present in the subject waters. Enclosure (5) provided the requested information. Therefore, it should be noted that NMFS concurrence is also contingent upon implementation of the protective measures listed in enclosure (5).

3. Dr. Frank Schwartz, an expert on whales with the Institute of Marine Sciences, University of North Carolina at Morehead City, was contacted to determine appropriate methods to follow for detecting any whales in the area so as to avoid possible adverse impact. Dr. Schwartz advised that whales annually move through offshore waters during their spring migration occurring 20 February - 7 April. Females and calves of the right whale migrate very close to the coastline during spring migration. Whales may be in a given area for several days and then suddenly move quite rapidly sometimes traveling to a maximum distance of ten miles within a 24-hour period. The best time to observe whales from the air is from 1200-1500 hours. Enclosure (7) contains material for identifying various species of whales. Dr. Schwartz's recommendations were also based on consultation with Dr. Howard E. Winn, Whale Coordinator, University of Rhode Island, concerning annual whale migration off Onslow



1 6 MAR 1983

Subj: Protection of Endangered Species in Offshore Waters

Beach and Brown's Island relative to protecting the species.

4. Therefore, in addition to all existing precautionary procedures listed in enclosure (5), the Training Facilities Officer should implement the following procedures immediately and annually hereafter, during the period of 20 February - 7 April:

a. Schedule daily aerial flights covering an area extending four miles seaward from the beach from Bogue Inlet southward to New Topsail Inlet, to determine if any whales are present (See Enclosure (7)).

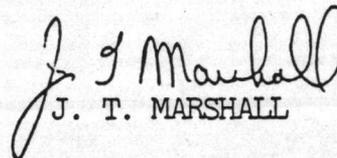
b. Conduct flights between 1200-1500 hours when possible and in a manner which allows the pilot to carefully observe the entire area within boundaries described in paragraph 4a above.

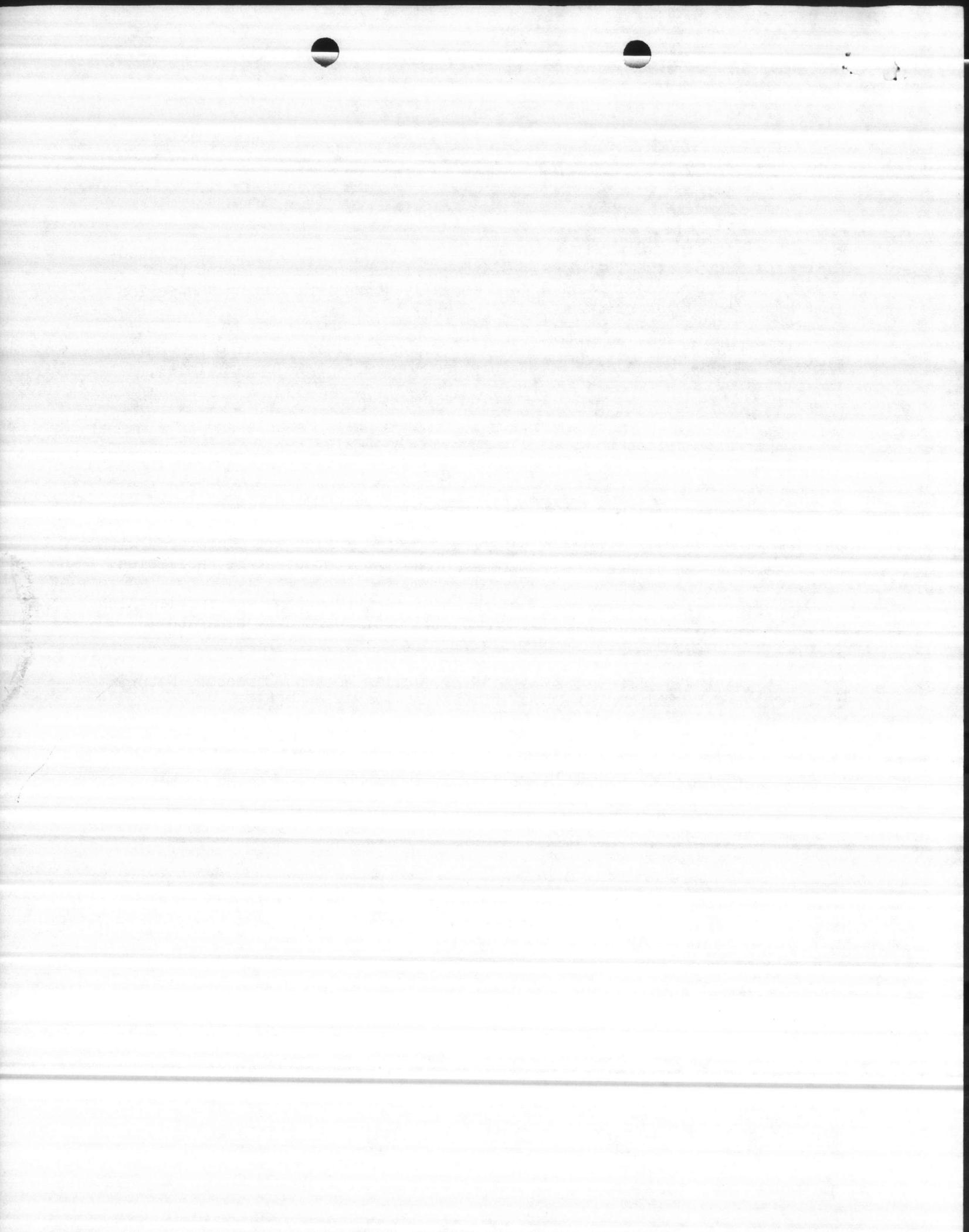
c. Flights should be flown at intervals of 24 hours or less.

d. Discontinue live-firing exercises anytime whales are discovered within 10 miles of the E-1, N-1 and BT-3 Range Areas and contact AC/S, Facilities.

5. Implementation of procedures and methods for protecting sea turtles also involved in this consultation with NMFS will be forwarded by separate correspondence in the near future.

6. Point of contact in this matter is Mr. Julian Wooten, Director, Natural Resources and Environmental Affairs Division, extension 2083.

  
J. T. MARSHALL



Ref (b)

TRNG/ARB/eks  
1500  
17 Mar 1983

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

Subj: Aerial Flights to Protect Endangered Species in Offshore Waters

Ref: (a) Yr ltr NREAD/DDS/th over 11015 dtd 16 Mar 83; same subject

1. The reference discussed measures believed necessary to provide protection for certain endangered marine species which, periodically/seasonally, frequent the offshore waters of this installation.

2. Notwithstanding the information contained in paragraph 3 which indicates the best time to observe the whales is 1200-1500, the present practice of requiring an aerial reconnaissance of the offshore surface danger area prior to commencing live fire on effected ranges is normally concurrent with units' firing request, most typically 0730-0900. It is believed that flights during the period just prior to the range(s) "going hot" are the better of the periods in that:

a. The aerial visual recon is already a range requirement and, accordingly, this would not generate a totally new wing requirement. It would, however, substantially increase the amount of area searched, with resultant increase in fuel/maintenance/flight hours involved.

b. Under normal weather conditions, both aerial observation and water clarity tend to be optimum in the earlier morning hours, and decrease markedly as the sun causes wind and waves offshore, which would enhance detection of whales if the flights were before the suggested 1200-1500 time period.

c. It is further understood that the clear intent of these reconnaissance flights is to attempt to take all prudent measures to protect these whales from possible firing danger (paragraph 3 of enclosure (5) to reference (a) germane), so these flights would be conducted only in association with live firing on ranges impacting into the offshore danger area.

3. Additional instructions for these flights and specifics relative to tower observers shall be promulgated as soon as practical.

A. R. BRUNELLI, Jr.





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

*firm*

IN REPLY REFER TO  
TRNG/AWR/kak  
1500  
18 Mar 1983

FIRST ENDORSEMENT on TFACO ltr TRNG/ARB/eks over 1500 dtd 17 Mar 1983

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

Subj: Aerial Flights to Protect Endangered Species in Offshore Waters

1. Forwarded as discussed on 17 Mar 1983.
2. You interposed no objection to morning flights and flights only on days when live firing taking place to seaward.

M. P. SAMS  
By direction

*Ref(c)*



2000

Copy to Charles

UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

6280/7  
FAC  
15 FEB 1985

FIRST ENDORSEMENT on Dir, NREAD ltr 11015/2 NREAD dtd 6Feb85

From: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

To: Assistant Chief of Staff, Training and Operations

Subj: PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

1. Forwarded. Recommend the procedures described in reference (a) of the basic letter be employed for live-firing operations affecting offshore waters.

2. POC on this matter is Mr. J. Wooten, extensions 2083/2195.

M. G. LILLEY

Copy to:  
→ NREAD  
EnvEngr



11015/2  
NREAD  
6 Feb 1985

**From:** Director, Natural Resources and Environmental Affairs  
Division, Marine Corps Base, Camp Lejeune  
**To:** Assistant Chief of Staff, Training, Marine Corps Base,  
Camp Lejeune  
**Via:** Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

**Subj:** PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

**Ref:** (a) Dir NREAD ltr NREAD/DDS/th 11015 of 16 Mar 1983  
(b) AC/S TRNG ltr TRNG/ARB/eks 1500 of 17 Mar 1983  
(c) AC/S TRNG ltr TRNG/AVR/kak 1500 of 18 Mar 1983

1. References (a), (b) and (c) set forth regulations for avoiding adverse impact to whales and sea turtles relative to live firing into offshore waters at Onslow Beach. A non-jeopardy opinion was rendered by the National Marine Fisheries Service involving the protection of endangered whales during migration in offshore waters. This opinion was contingent upon the procedure established in reference (c) for aerial overflights to insure that whales and sea turtles were not affected by live firing operations.

2. Females and calves of the endangered right whale migrate very close to this area of coastline according to Dr. Frank Schwartz, Institute of Marine Sciences, University of North Carolina, Morehead City, North Carolina. It is therefore recommended that the procedures listed in reference (b) be continued during the period of spring migration 20 February-7 April 1985.

J. I. WOOTEN



11

OPNAV 5216/144 (REV 6-70)  
S/N 0107-LF-778-8097  
DEPARTMENT OF THE NAVY

# Memorandum

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CJP

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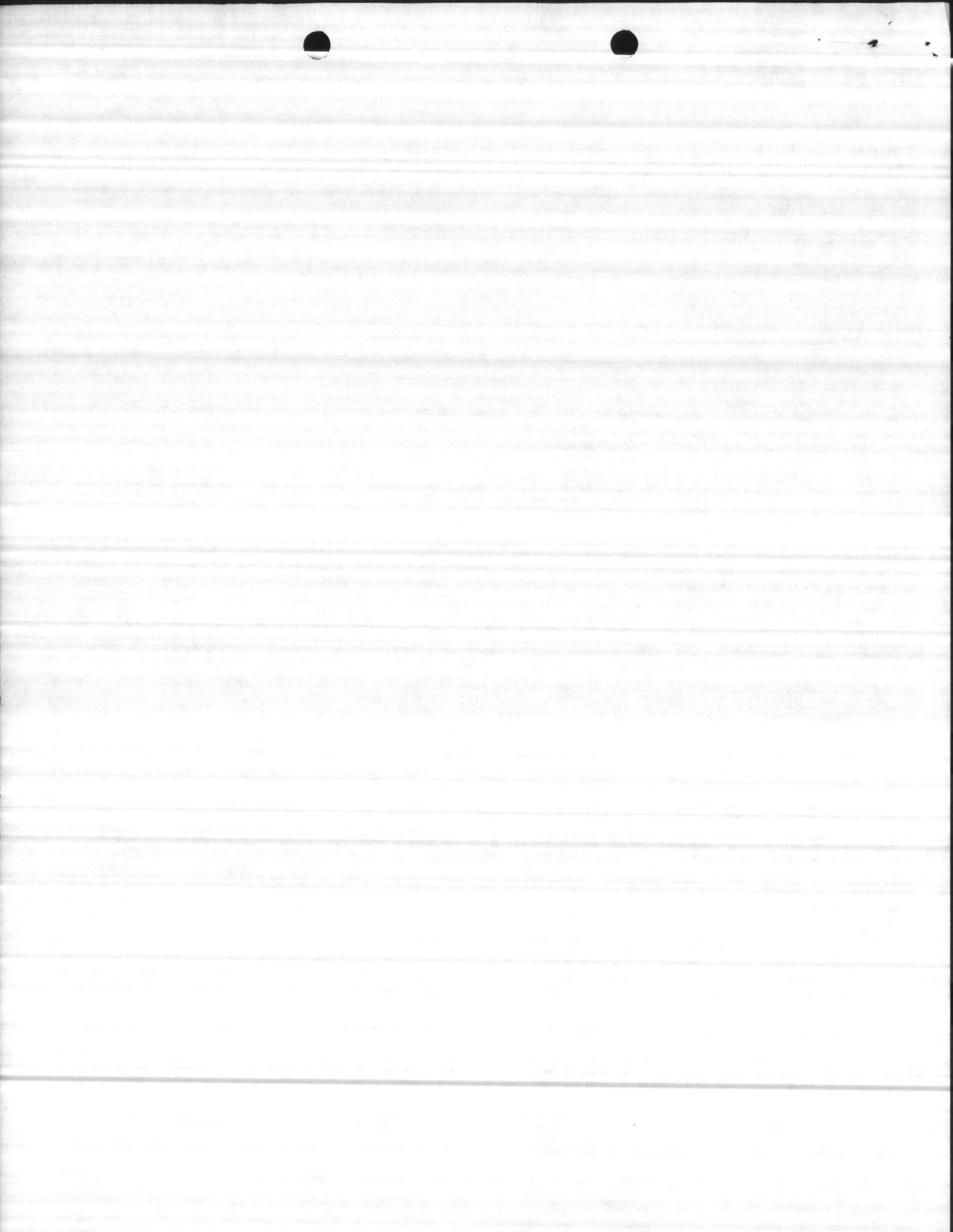
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CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

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*Forman*

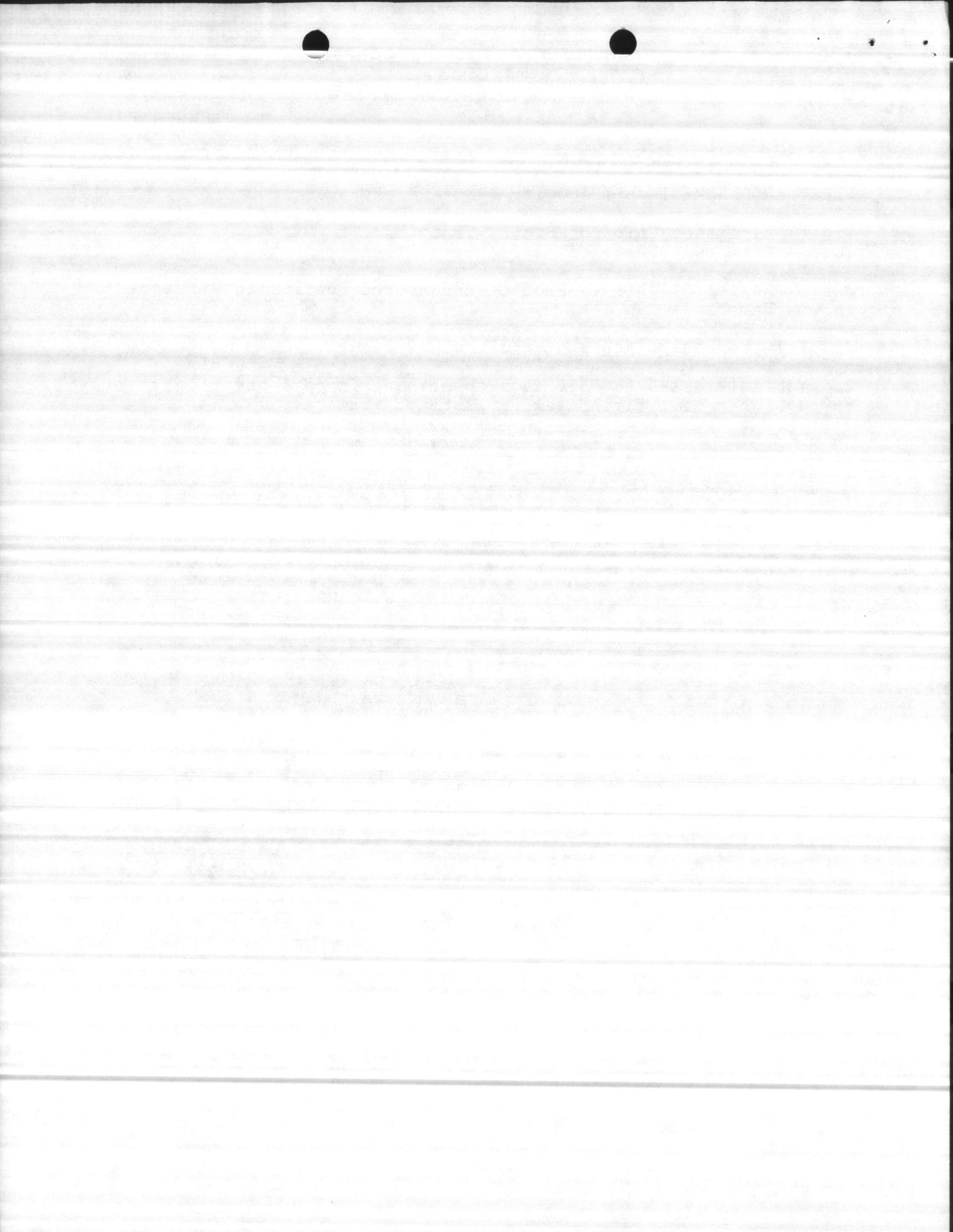
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Marine Corps Base  
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NREAD/DDS/th  
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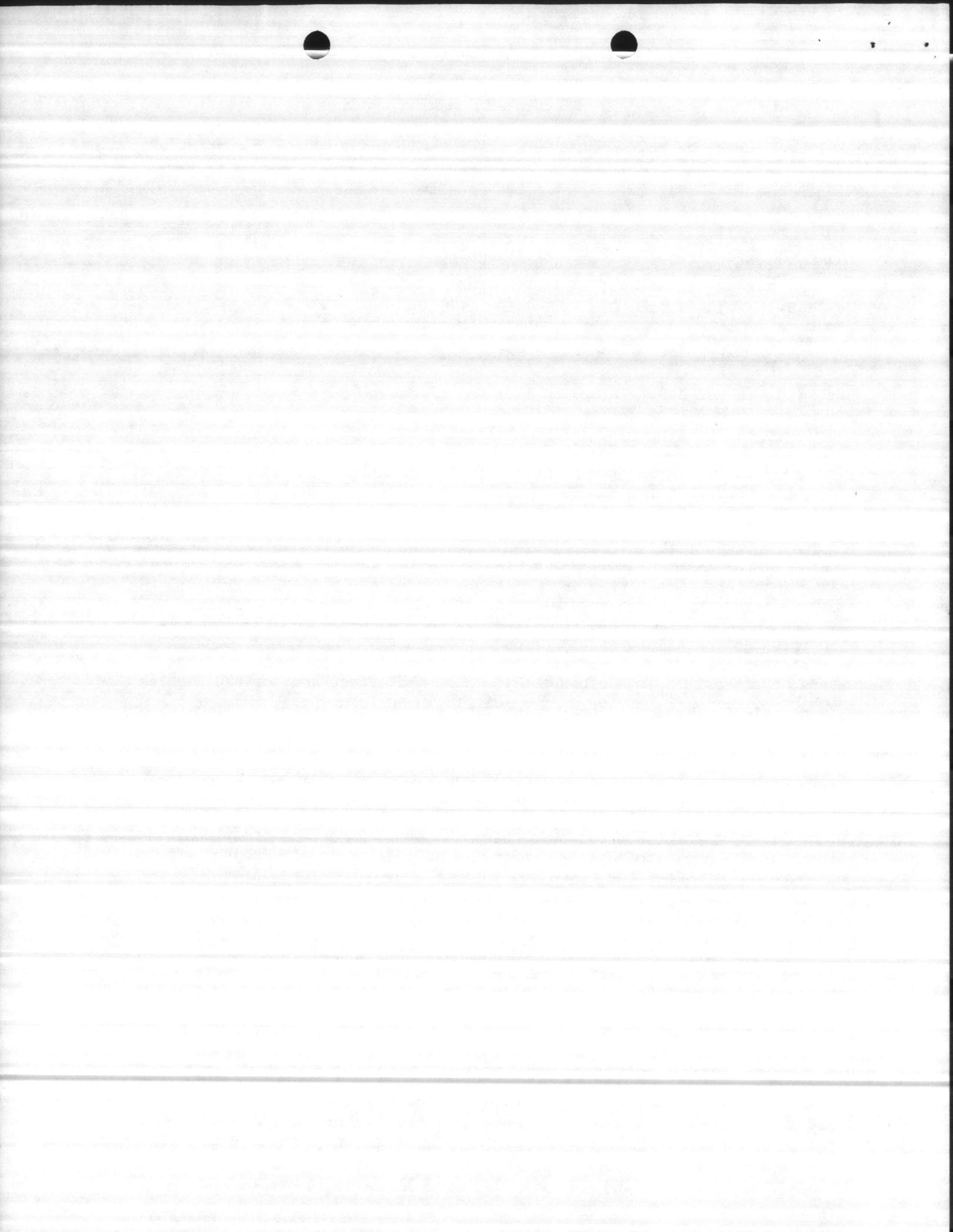
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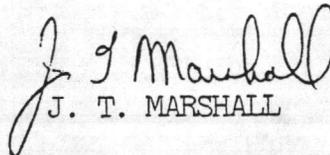
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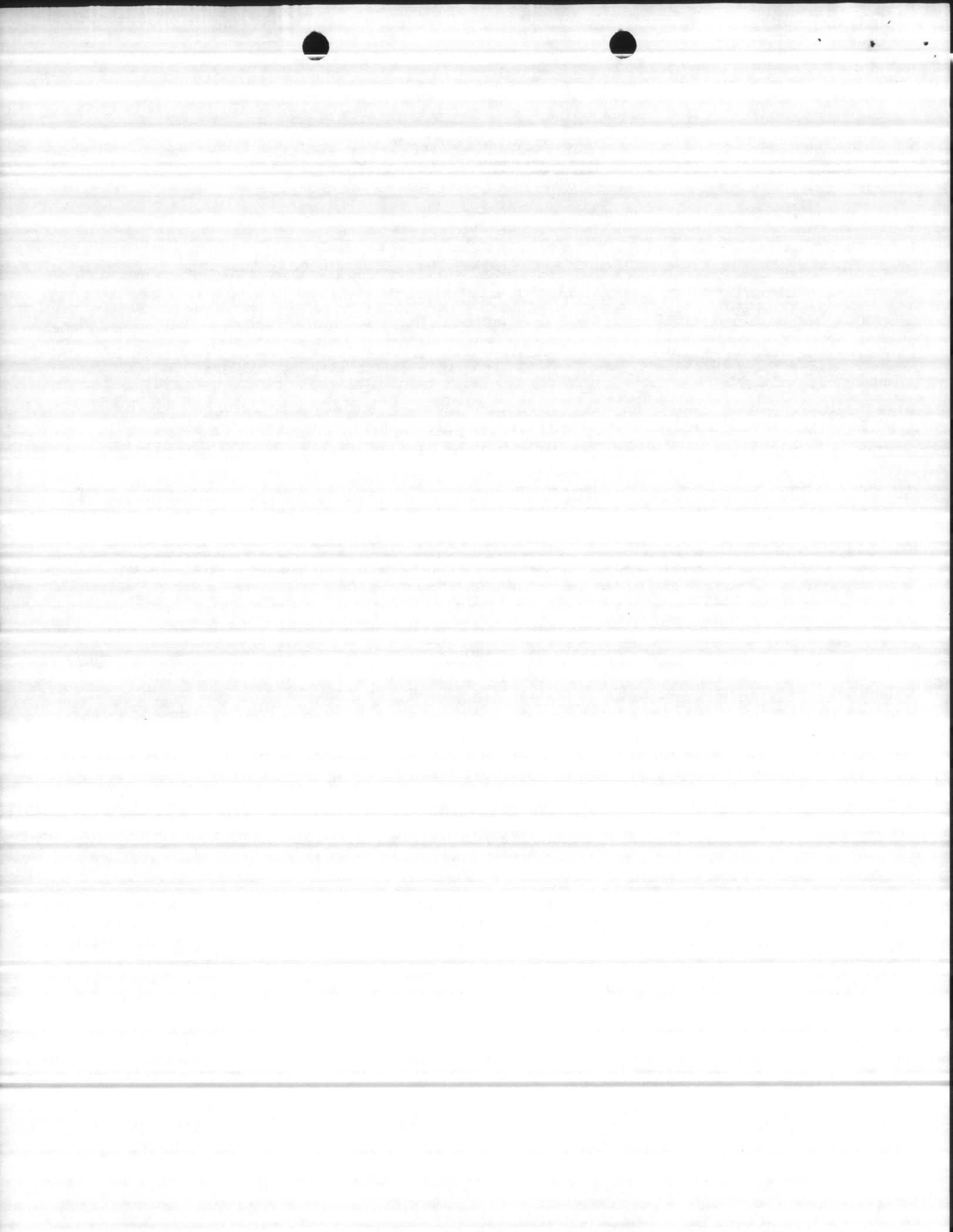
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MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542

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17 Mar 1983

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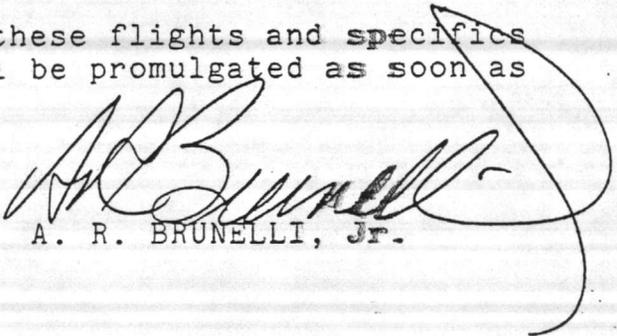
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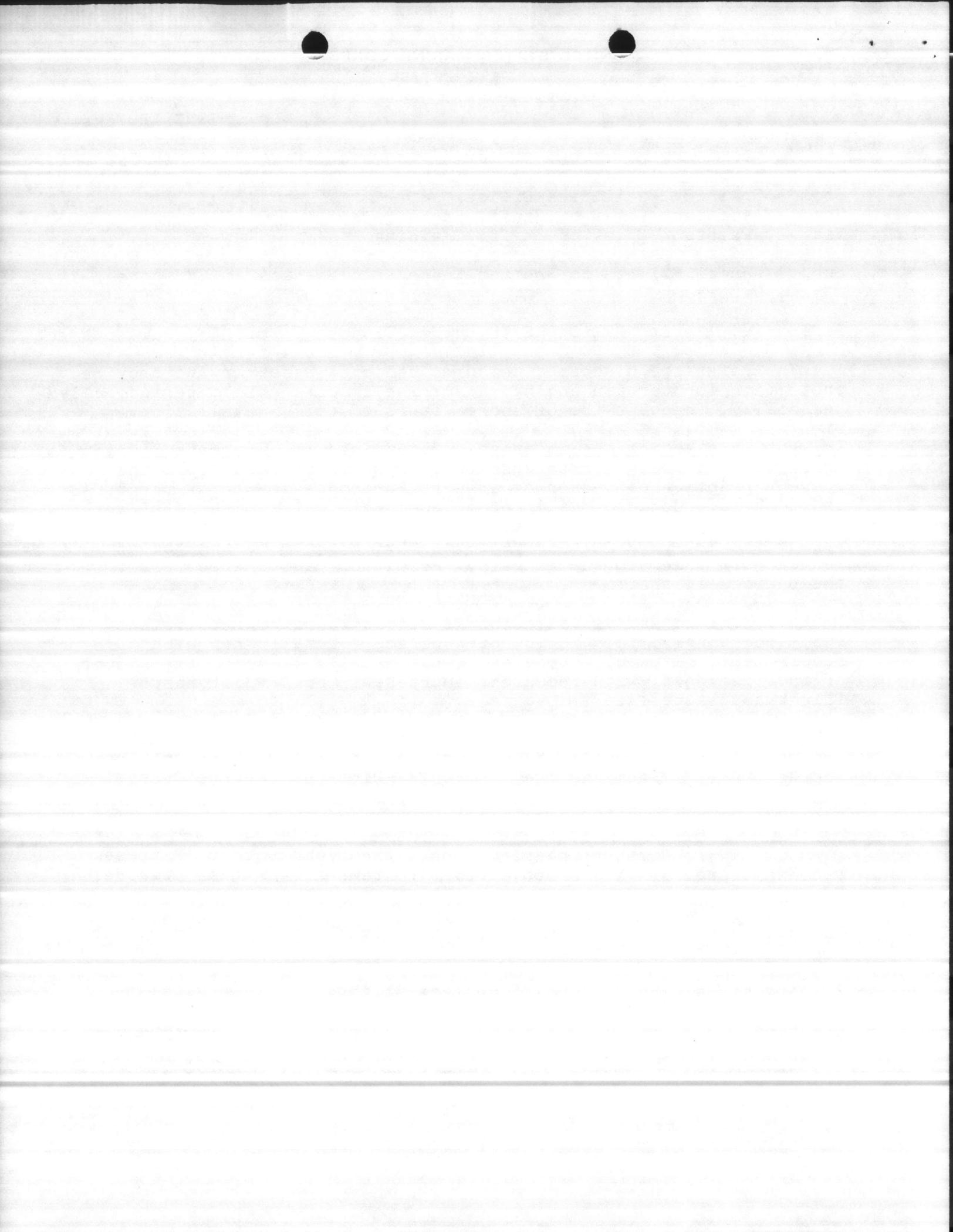
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A. R. BRUNELLI, Jr.



File 15  
Turtles

NREAT copy

UNITED STATES DEPARTMENT OF COMMERCE  
National Marine Fisheries Service  
Southeast Region

Southeast Region  
9450 Koger Boulevard  
St. Petersburg, FL 33702

June 27, 1983

Colonel J.T. Marshall  
Assistant Chief of Staff, Facilities  
United States Marine Corps  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

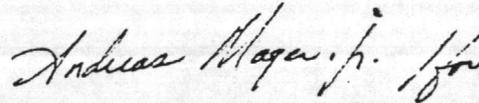
Dear Colonel Marshall:

This responds to your June 3, 1983, and June 16, 1983, letters regarding expansion of the N-1 Impact Area and Brown's Island Target and Bombing Area BT-3 at the Marine Corps Base, Camp Lejeune, North Carolina. Consultation was requested pursuant to Section 7 of the Endangered Species Act of 1973 (ESA).

We have reviewed your biological assessment (BA) and concur with your determination that populations of endangered/threatened species under our purview would not likely be jeopardized by the subject action.

This concludes consultation responsibilities under Section 7 of the ESA. However, consultation should be reinitiated if new information reveals impacts of the identified activity that may affect listed species or their critical habitat, a new species is listed, the identified activity is subsequently modified or critical habitat determined that may be affected by the proposed activity.

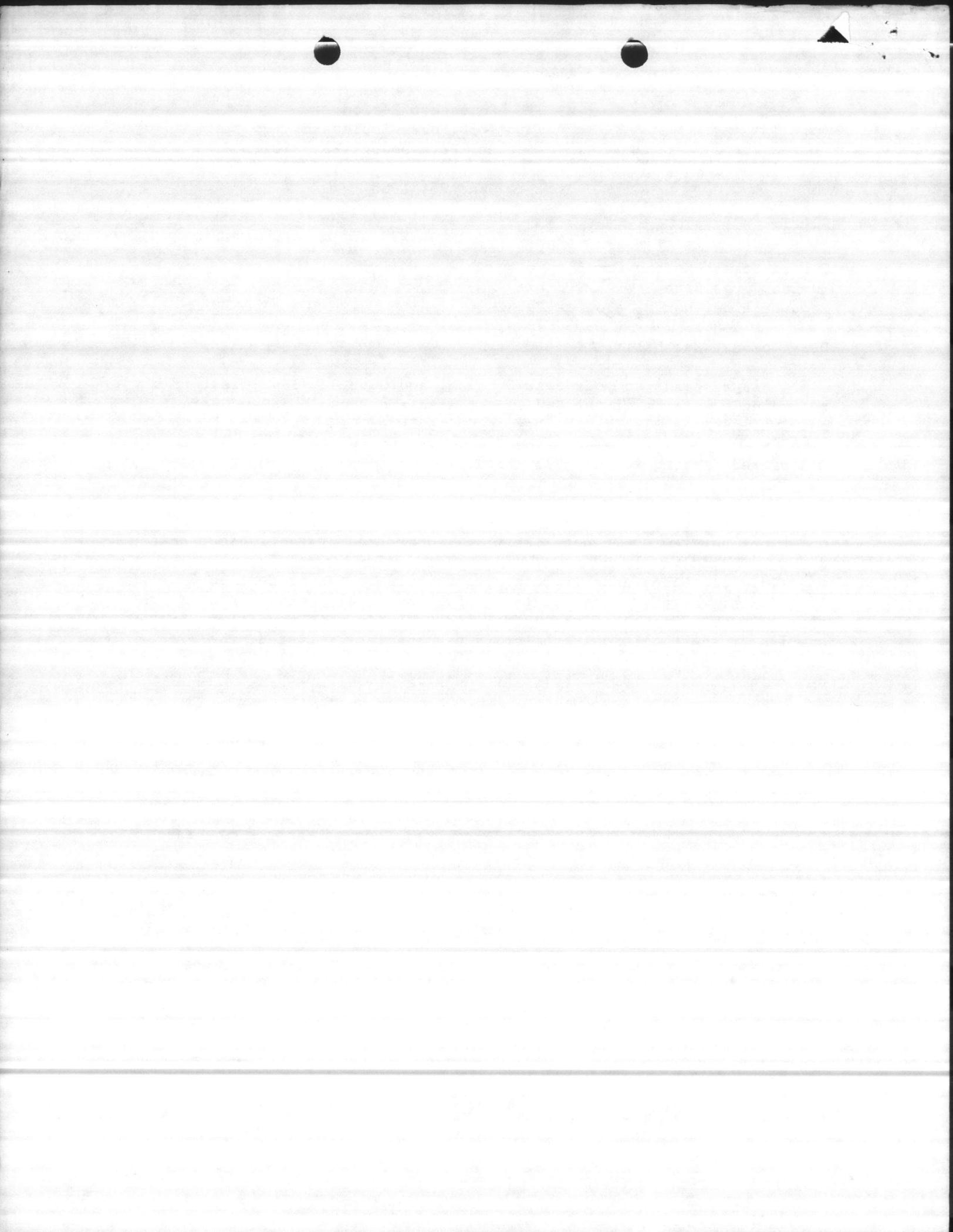
Sincerely yours,



Charles A. Oravetz, Chief  
Protected Species Management Branch

cc:  
FWS - Asheville, NC





TRNG/ARB/eks  
1500  
17 Mar 1983

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

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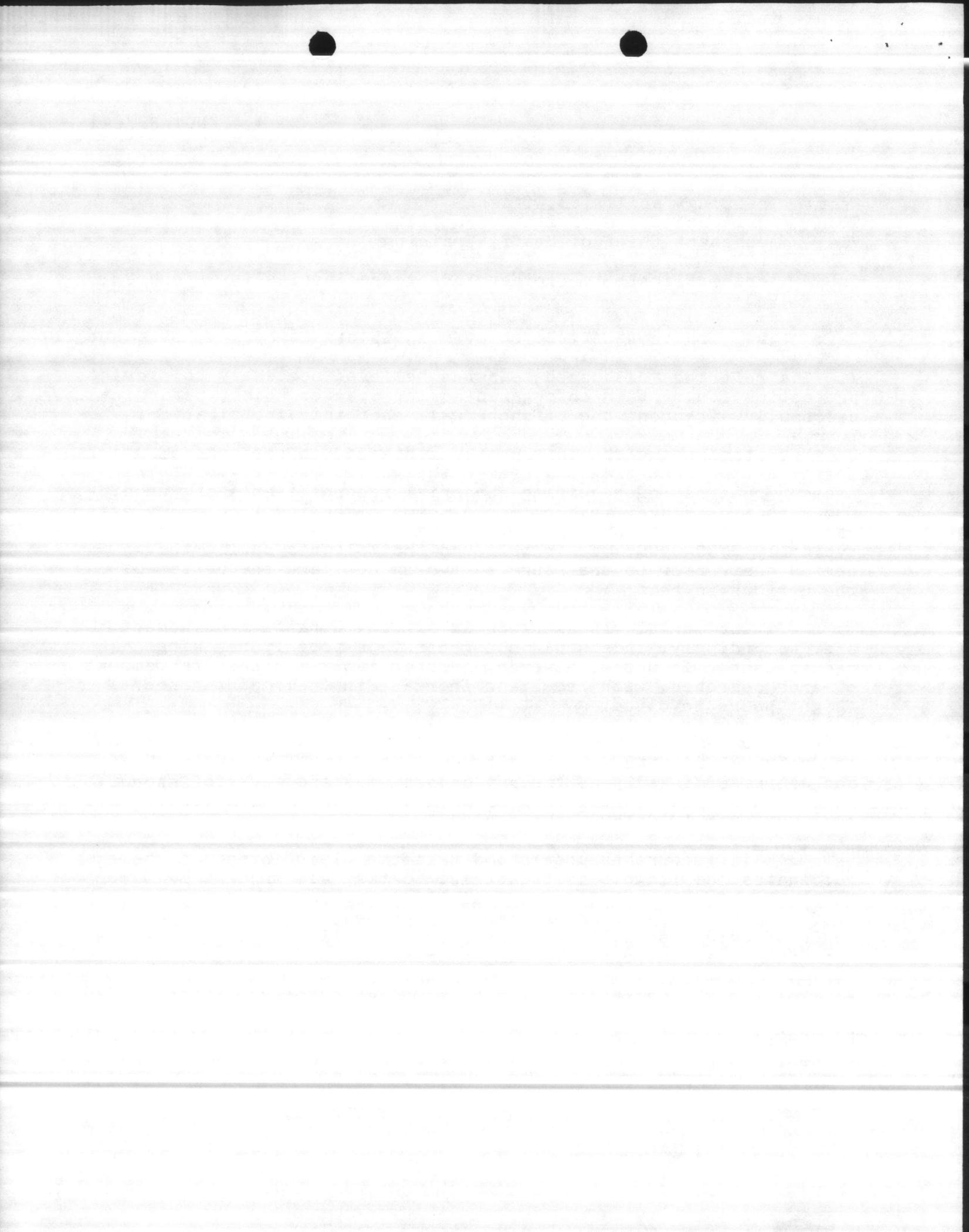
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3. Additional instructions for these flights and specifics relative to tower observers shall be promulgated as soon as practical.

A. R. BRUNELLI, Jr.



MAIN/CDP/th  
11015

17 November 1981

Mr. Harold Allen  
Acting Director Southeast Region  
National Marine Fisheries Services  
National Oceanic Atmospheric Administration  
9450 Koger Boulevard  
St. Petersburg, Florida 33702

Dear Mr. Allen:

Marine Corps Base, Camp Lejeune, North Carolina, has conducted formal consultation procedures with the U. S. Fish and Wildlife Service for endangered and threatened species pursuant to the Endangered Species Act of 1973, Title 50, Code of Federal Regulations, Number 402. Biological opinions have been rendered for the Red-Cockaded Woodpecker (*Dendrocopos borealis*), Atlantic Loggerhead Sea Turtle (*Caretta caretta*) and Green Sea Turtle (*Chelonia mydas*).

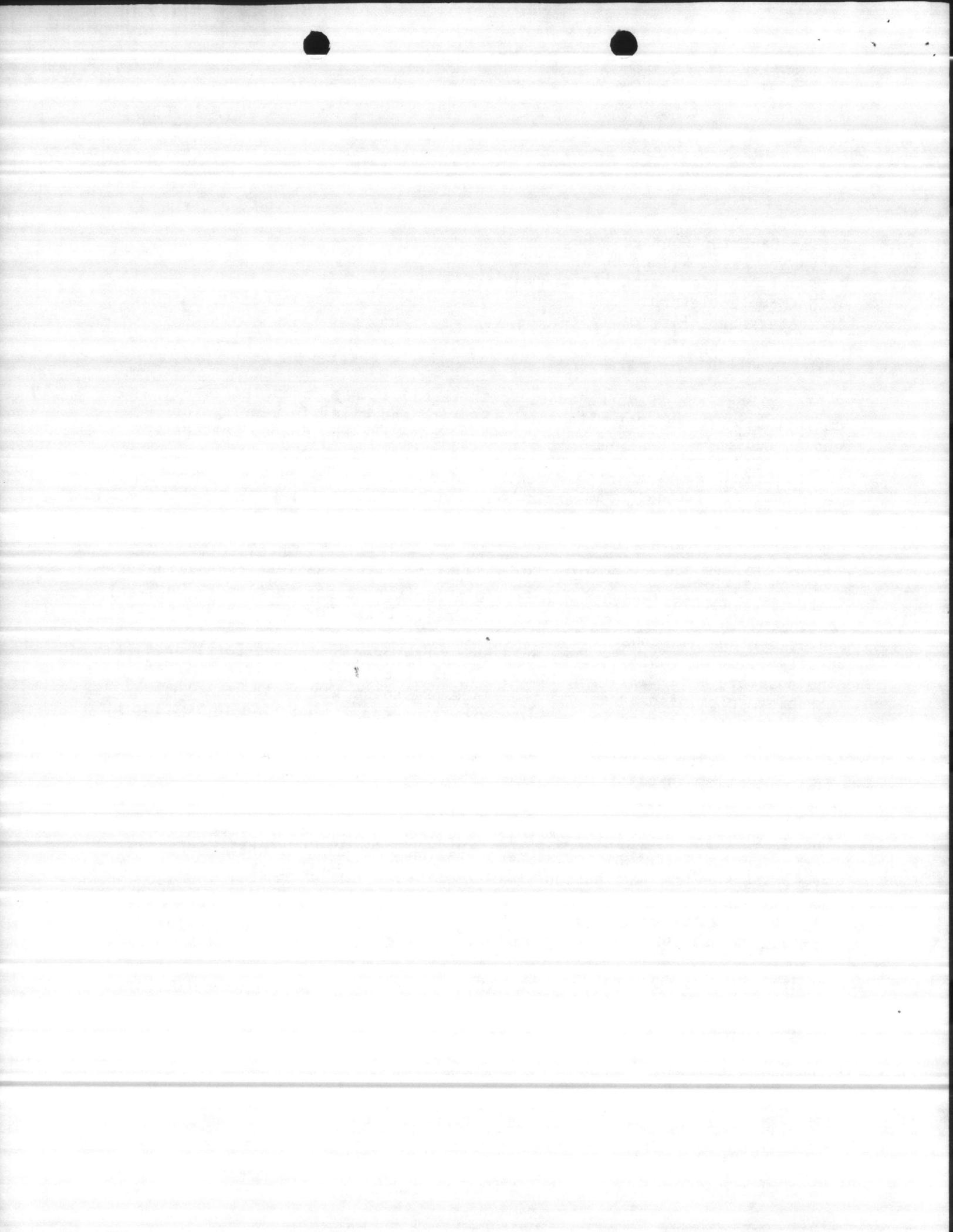
Formal consultation is now in progress which initially involved the Eastern Brown Pelican (*Pelecanus occidentalis*) and the American Alligator (*Alligator mississippiensis*). Possible impacts to sea turtles at Onslow Beach and in offshore waters from the Onslow Beach North Tower Range were noted during this consultation process. These impacts were listed in a draft biological opinion presently being reviewed by Marine Corps Base. The possible impacts listed include: ruts caused by assault amphibian vehicles in gaining access to the range presenting an obstacle to hatchlings reaching the sea; ruts caused by vehicles on the firing line in setting up and maneuvering also presenting an obstacle to hatchlings reaching the seas; and live service ammunition fired into the ocean causing direct mortality of sea turtles in offshore waters. The first two impacts were addressed in the draft biological opinion.

The U. S. Fish and Wildlife Service advised that the third impact was a basis for initiation of formal consultation with the National Marine Fisheries Service, who has jurisdiction over sea turtles in offshore waters. By this letter, we are, therefore, initiating formal consultation procedures with your agency to resolve any possible conflicts between Marine Corps activities and our responsibilities under the Endangered Species Act.

We look forward to consulting with you on these matters involving established military training requirements and our legal responsibilities concerning sea turtles in offshore waters.

Sincerely,

C. G. COOPER  
Major General, U. S. Marine Corps  
Commanding General



BIOLOGICAL ASSESSMENT OF MARINE HABITAT  
Onslow Beach, Marine Corps Base  
Camp Lejeune, North Carolina

I. INTRODUCTION

A. This biological assessment provides information concerning threatened and endangered species occurring in offshore waters at Onslow Beach, Marine Corps Base, Camp Lejeune, North Carolina. Endangered whales migrating past Browns Island includes the Fin Whale (*Balaenoptera physalus*), Humpback Whale (*Megaptera novaeangliae*) and Right Whale (*Eubaleana glacialis*). Whales usually migrate one-fourth or more miles off Onslow Beach. Most movement has been recorded in mid-March to mid-May with lesser activities in late November and December. There have been no known strandings of whales on Onslow Beach but there have been recent strandings on nearby Bear Island, Topsail Island and Bogue Banks.

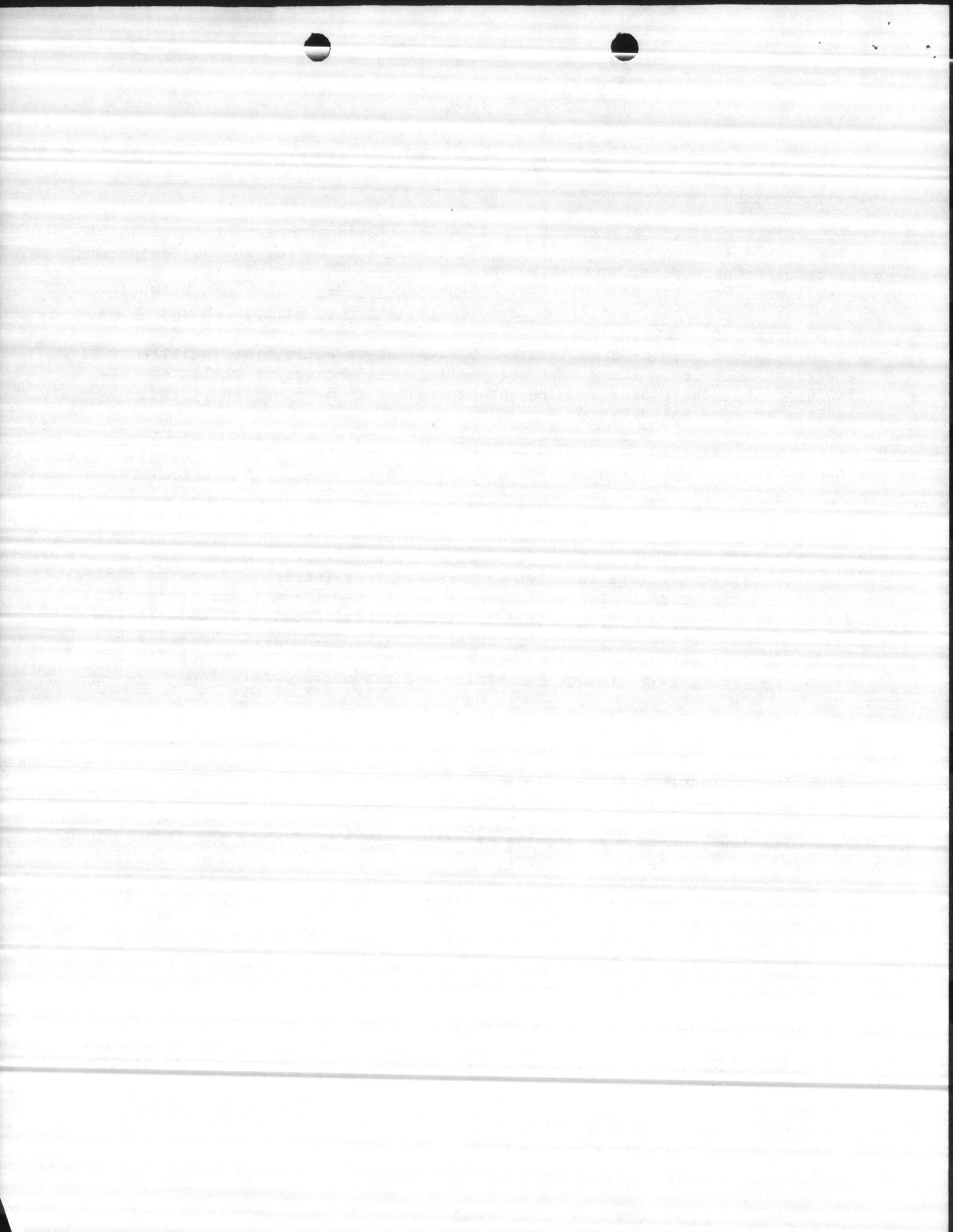
B. Threatened species include the Atlantic Loggerhead (*Caretta caretta*) and Green Turtle (*Chelonia mydas*) which nest on Onslow Beach. A comprehensive program has been conducted for these species since 1972 involving monitoring nesting activities through surveys, tagging and protecting nests from predation. Formal consultation has been conducted with the U. S. Fish and Wildlife Service and a biological opinion has been rendered for these listed species. Both opinions contain guidelines relative to military training activities and management functions for each of these listed species concerning nesting activities on Onslow Beach. Formal consultation concerning these species as well as the Atlantic Ridley (*Lepidochelys kempi*), Leatherback (*Dermochelys coriacea*) and Hawksbill (*Eretmochelys imbricata*) Sea Turtles which migrate through the area is necessary due to live-firing into marine habitat off Browns Island.

C. The Browns Island N-1 Impact and Target and Bombing Area has been used for live-firing since Camp Lejeune was established in the early 1940's. There has been no noticeable environmental change to the island or marine habitat except for the live ordnance contained there.

D. Aerial surveys have been conducted of Browns Island and surrounding areas to determine the amount of sea turtle nesting activity. Twenty-one flights were made during the 1982 nesting season as contracted by the North Carolina Wildlife Resources Commission. Ninety-one apparent nests were located during the aerial survey on Browns Island in comparison to sixty six active nests which were ground truthed on Onslow Beach.

II. DESCRIPTION OF AREA

A. The Browns Island coastline is a relatively uniform sand ridge about 200 to 500 feet wide and typically about 5 to 15 feet in elevation. Shifting sand dunes on the ridge reach elevations of 25 to 40 feet. The sand ridge protects the mainland from wave action and it impedes tidal action as well as drainage from the mainland. Drainage from the area passes through Browns Inlet and Bear Inlet into the Atlantic Ocean. Tidal flats occupy irregular strips behind the coastal sand ridge, in pockets along the shore at the sound and in lowlands along the estuaries draining into the sounds.



B. This area of the coastal plain is underlain by hundreds of feet of free or unconsolidated and weakly consolidated sediments ranging from cretaceous to miocene in age. Generally these formations are covered with a 5 to 30 feet surface layer of pleistocene sediments. These sediments are mostly clean sand and clayey sand, interlayered with deposits of clay and marine shells. On some of the poorly drained upland areas, thick organic soils have developed since emergence. Locally, on the banks of large streams, outcroppings of the miocene yorktown formation can be found. The yorktown consists of clay, sand and shell marl beds which are similar to the younger surficial deposits. The coastal sand ridge is primarily of wave-washed beach sand, but assorted sediments as described above occurs at shallow depths under the ridge.

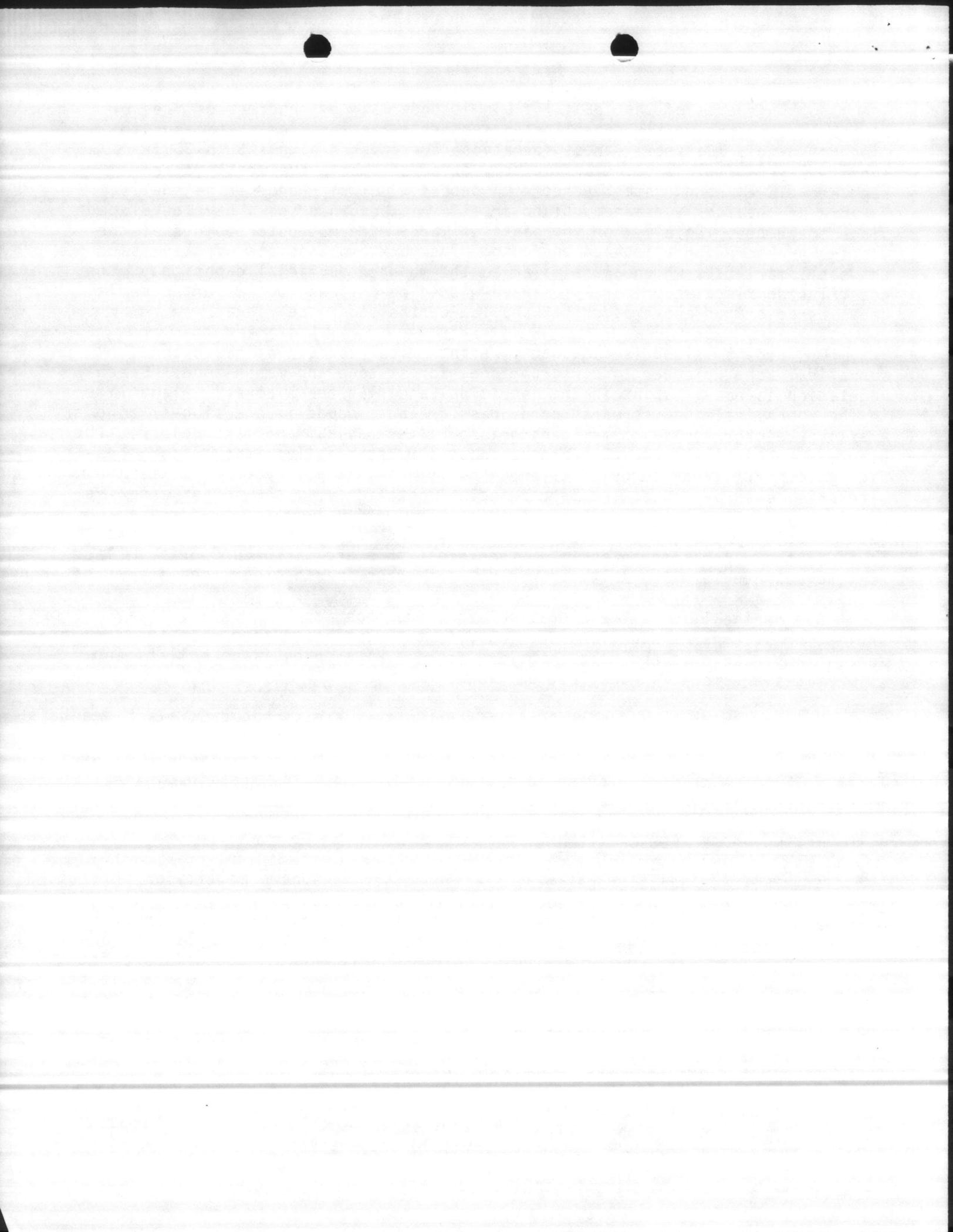
C. Browns Island is composed of an intratidal zone, flat beach zone, supratidal zone; pioneer zone, scrub zone, forest zone and marsh zone. Beach vegetation is non-existent in the intratidal and flat beach zones. Plant life in the supratidal zone is marsh cord grass. Plants found in the pioneer zone are American beachgrass, sea oats, panicgrass, bitter panicum and marsh elder. The plants found in the scrub zone are seacoast blue stem, silverleaf croton, seaside goldenrod, large pennywort, yaupon holly, waxmyrtle, bayberry, Eastern baccharis, shinning sumac and pepperwine. Plants found in the forest zone are Virginia creeper, muscadine grape, American holly, devilwood, flowering dogwood, redbay loblolly pine, red maple, blackcherry, red cedar and live oak. Plants found in the marsh zone inland from the forest zone are marsh cord grass, glasswort, black needle rush, saltmeadow hay, salt grass, marsh elder, sea oxeye and grounds

D. Marine life in the supratidal zone are ghost crabs and sand fleas. Ghost shrimp, bristle worms and clams are found in the flat beach zone. In the intratidal zone, clams, lugworms and mole crabs are found. Blue crabs, sand dollars and silversides are found in the subtidal zone.

E. Marine fishes inhabiting offshore waters are barracudas, black sea bass, bluefish, bonitos, cobia, croakers, dolphin, black drum, red drum, flounder, grouper, grunt, jack mackerel, Atlantic mackerel, ling mackerel, spanish mackerel, ocean mullet, whitefish, pigfish, pompanos, porgie, spotted weakfish, sharks, silversides, snapping spot and white sea trout.

### III. ACTION/PROJECT DESCRIPTION

A. This biological assessment does not describe a new facility or project. It provides information on threatened and endangered species located in an existing bombing and artillery range located at Browns Island. Both of these ranges have been in existence since World War II. The range located at Browns Island has been in continuous use since World War II. The range adjacent to, but offshore from, Browns Island was in use until the early 1960's. Since the early 1960's, it has fallen into disuse, except for over-shoots. Due to changes in the Marine Corps weapons inventory, plus increased range capabilities of new weapons, there is a requirement to resume firing in the offshore portion of Browns Island target complex. This assessment addresses these ranges as one since they are adjacent and will be scheduled for utilization as one range. This range is commonly referred to by one of the following names: BT-3, N-1 Impact Area or Browns Island. For clarity's sake this assessment will address the complex as the N-1 Impact Area as it is this agency's intent to formally declare Browns Island the adjoining rectangular ocean sector (see map) as a single target and bombing area. A description of the first range is as follows:



1. Range: N-1 Impact Area

2. Location: Browns Island grid coordinate 9429 through 0033 and a rectangular oceanic sector approximately 6,000 meters wide, extending approximately 10,000 meters in a southeasterly direction off the coast of Camp Lejeune (see attached map), Appendix A.

3. Description:

a. This range is also referred to as Bombing and Target Range (BT-3) and Browns Island.

b. The Browns Island portion is used for aircraft, artillery and tank weapons firing utilizing improvised targets such as vehicle hulls. It is an impact area for the G-5, G-5A and G-7 Ranges.

c. The offshore portion of the N-1 Impact Area will be used as an impact area for machinegun and other light weapons fire at targets and as an over-shoot safety impact area from firing at land based targets. Targets will be small, improvised, anchored devices towed into place prior to a firing exercise and removed upon completion of the firing exercise.

d. The Browns Island portion of the N-1 Impact Area is adjacent to the Intracoastal Waterway.

4. Authorized Firing:

a. Aircraft - All aircraft armanent is composed of practice rounds not exceeding net explosive weight of 20 pounds TNT equivalent.

b. Ground Weapons - All weapons and ammunition authorized for ranges G-5, G-5A and G-7.

c. Mortars may be used to mark targets (HE, illumination and WP).

d. Artillery - All types of ammunition.

5. Range Limits: This range extends northeast from the Junction of north/south grid line 94 at Onslow Beach, along the beach line to Bear Creek Inlet; north-northwest along Bear Creek to a point 400 yards northwest of the Intracoastal Waterway; west-southwest on a line 400 yards of and parallel to the Intracoastal Waterway to Freeman's Creek then south to the point of origin. This portion of the N-1 Impact Area is bordered by a 1,000 yard buffer zone on the north and west side. A 1,000 yard no fire zone extends inboard from Bear Creek. The water portion of the N-1 Impact Area is a rectangular oceanic sector approximately 6,000 meters wide and extends approximately 10,000 meters in a southeasterly direction seaward, off the coast of Camp Lejeune.

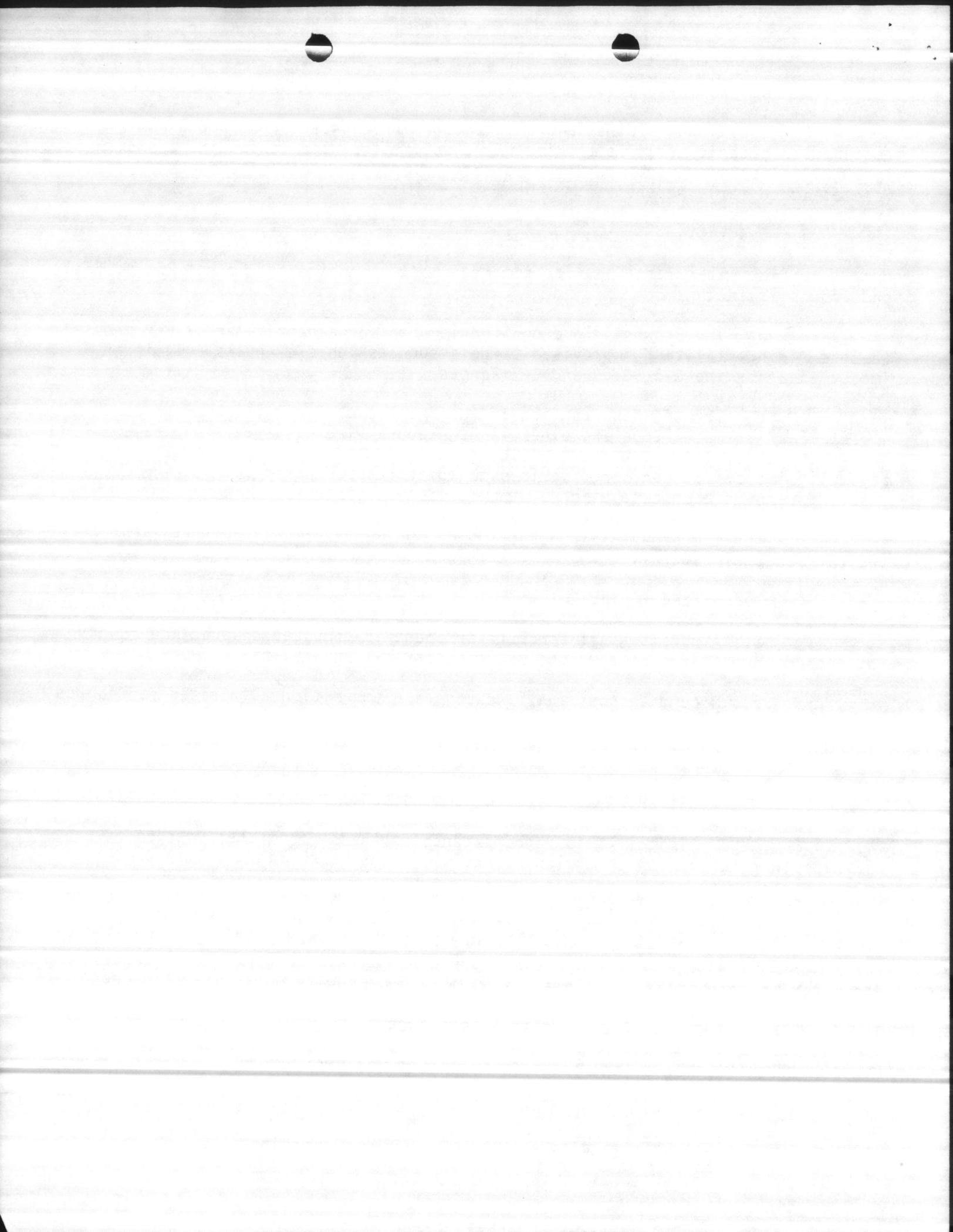
B. A description of the second range is as follows:

1. Range: Onslow Beach North Tower Machinegun Range

2. Location: Onslow Beach North Tower grid coordinate is 9328

3. Description:

Assault Amphibian Vehicle Range



b. Floating target platforms seaward within the N-1 Impact Area

4. Authorized Firing:

a. Weapons - M-2, M-85, M-60 and 25 mm machineguns both ground mounted and vehicle mounted.

b. Ammunition - Service

5. Range Limits:

a. Right flank coordinate 935287, azimuth 105°

b. Left flank coordinate 939290, azimuth 80°

C. A description of the third range is as follows:

1. Range: E-1 Onslow Beach Missile Range

2. Location: E-1 Onslow Beach Missile Range extends between Onslow South Tower and grid line 90 on the beach between the frontal dunes and the ocean.

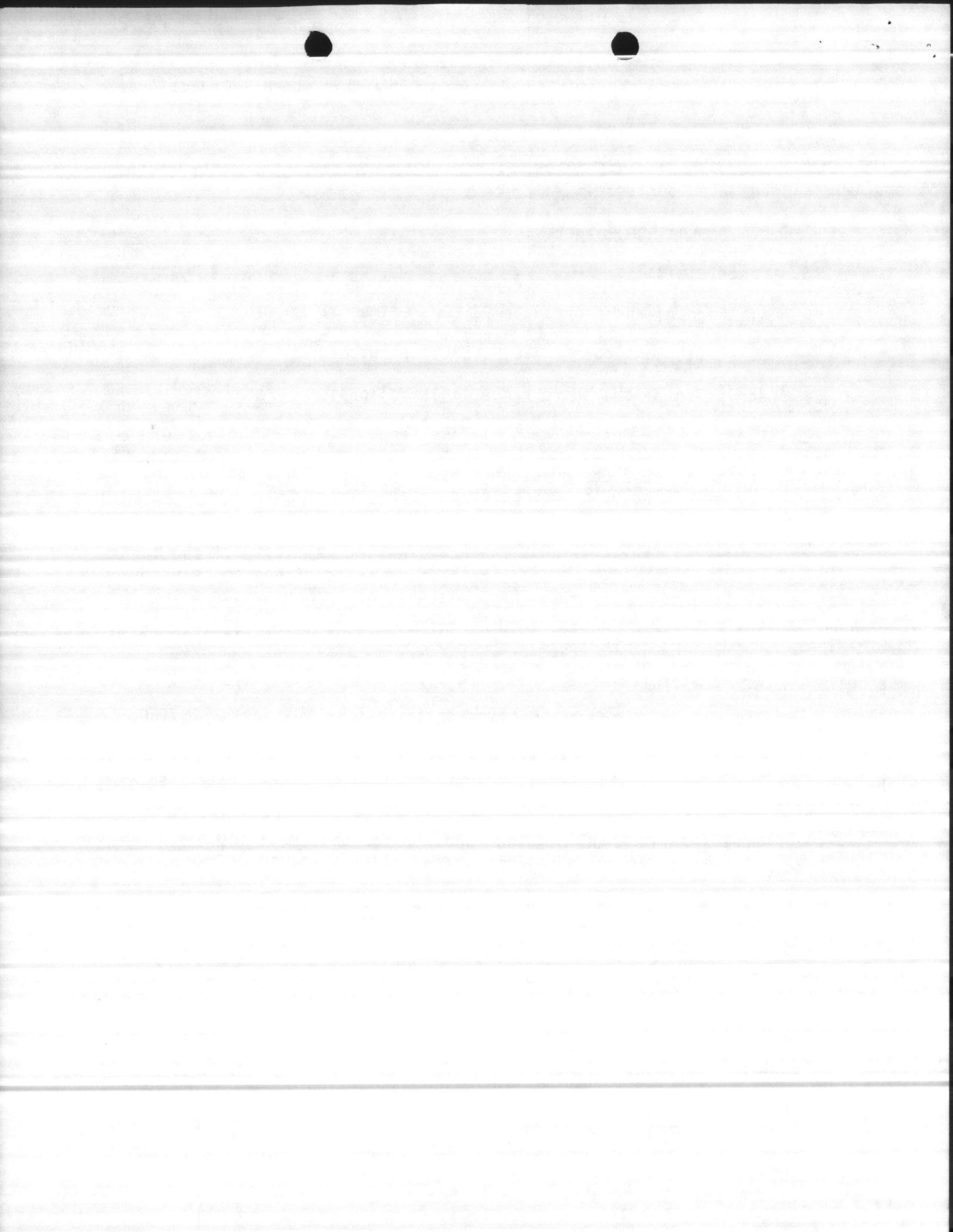
3. Additional Information: The E-1 Range is a missile firing range for Redeye and Hawk missiles. The weapon systems are designed to be used against aerial targets. Firing of these missiles is by Marine Corps and the U. S. Army personnel on the beach. There are no explosives on the practice missiles, but there will be debris from fragmentation and the missiles themselves which impact into the ocean. Normally the missile firing is conducted semi-annually. Twelve missiles were fired from 3 December 1980 through 22 March 1982.

IV. PROBABLE IMPACT TO ENDANGERED/THREATENED SPECIES IN THE MARINE ENVIRONMENT

A. The marine environment in the N-1 Impact/BT-3 Bombing and Target Area has been used for many years for military training exercises. This area contains large quantities of unexploded ordnance. The land area can be entered only by Explosive Ordnance Disposal personnel. The U. S. Fish and Wildlife Service found no adverse impact in the opinion rendered for the Green and Atlantic Loggerhead Sea Turtles relative to impact from live-firing on Browns Island.

B. The offshore portion of the range is primarily used for firing non-exploding projectiles. It is also used as a buffer zone for firing on Browns Island and infrequently receives artillery projectiles or aircraft bombs that are over-shot. There are no permanent structures except for an observation tower on the outer edges of the buffer zone at Onslow Beach and Browns Tower. Range regulations prohibit firing at wildlife species on land, air or water at all times.

C. A dead Loggerhead Turtle was stranded near Browns Inlet in 1978 which appeared to have been shot through the head. Two whales of undetermined species were stranded on Bear Island in April 1982 approximately 24 feet to 30 feet in length. Neither of these incidents were known to have resulted from firing into the N-1 Impact/BT-3 Bombing and Target Areas. A portion of the subject area has been established as a sea turtle sanctuary by the State of North Carolina to prohibit commercial trawling during the nesting seasons.



D. The sea turtle sanctuary is listed as beginning at the northernmost end of Hammocks Beach (Bear Island) and seaward toward the Bogue Inlet buoy for 1,000 feet; southwestward 1,000 feet off Bear Island to the restricted zone designated as part of Camp Lejeune restricted area; seaward along the northern boundary of this zone; on the south side of the restricted zone the sanctuary shall recommence 1,000 feet or one-fourth mile off the beach and pass southwestwardly to the first (northern) observation tower on Onslow Beach; thence the zone shall extend for three-fourths of a mile to  $34^{\circ} 33.5' N-77^{\circ} 13.4' W$ ; the zone shall thence include that portion of the ocean southwestward of the New River Inlet buoy the demarkation line shall pass the southernmost tip of Onslow Beach, no person shall use any commercial fishing equipment between June 1 and August 31, except that the Secretary, North Carolina Department of Natural Resources and Community Development, acting upon the advice of the Director, may by proclamation modify the sea turtle sanctuary within the above described area and vary implementation between these dates for the protection of the sea turtle population. The sea turtle sanctuary is contained in Appendix B.

E. Contracts have been made with recognized experts concerning listed species in the subject area including those with the U. S. Fish and Wildlife Service and the North Carolina Wildlife Resources Commission and the University of North Carolina. The North Carolina Marine Fisheries Division has been contacted relative to commercial fishing operations in offshore waters along Onslow Beach. Names and addresses of those individuals contacted are as follows:

1. Dr. Frank Schwartz, Institute of Marine Sciences, University of North Carolina, Morehead City, North Carolina
2. Mr. Don Harke, State Supervisor Wildlife Assistance, U. S. Fish and Wildlife Service, Raleigh, North Carolina
3. Mr. Otto Florschutz, Sea Turtle Recovery Team Member, U. S. Fish and Wildlife Service, Washington, North Carolina
4. Mr. Stuart Critcher, Endangered Species Coordinator, North Carolina Wildlife Resources Commission, Raleigh, North Carolina
5. Mr. Stephen Polinski, Law Enforcement Plot, North Carolina Marine Fisheries Division, Morehead City, North Carolina
6. Mr. Howard Bogey, Inspector, North Carolina Division of Marine Fisheries, Swansboro, North Carolina

F. Available literature on the listed species has been reviewed.





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE

Southeast Region  
9450 Koger Boulevard  
St. Petersburg, FL 33702

November 23, 1981

F/SER61:AM

Major General C. G. Cooper  
Commanding General, U. S. Marine Corps  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

Dear Major General Cooper:

This responds to your November 17, 1981, letter requesting consultation for Marine Corps activities at the Marine Corps Base, Camp Lejeune, North Carolina, as required by Section 7 of the Endangered Species Act of 1973.

The attached list provides the threatened and endangered species under National Marine Fisheries Service jurisdiction that may be present in the project area. Upon receipt of this list, the USMC must insure that its actions are not likely to jeopardize the continued existence of the listed species.

For a major Federal action, the agency must conduct a biological assessment to identify any endangered or threatened species which are likely to be affected by such action. The biological assessment shall be completed within 180 days after receipt of the species list, unless it is mutually agreed to extend this period.

The components of a biological assessment are as follows:

- (1) conduct a scientifically sound on-site inspection of the area affected by the action, which must, unless otherwise directed by the Service, include a detailed survey of the area to determine if listed or proposed species are present or occur seasonally and whether suitable habitat exists within the area for either expanding the existing population or potential reintroduction of populations;
- (2) interview recognized experts on the species at issue, including those within the Fish and Wildlife Service, the NMFS, State conservation agencies, universities and others who may have data not yet found in scientific literature;
- (3) review literature and other scientific data to determine the species distribution, habitat needs, and other biological requirements;
- (4) review and analyze the effects of the action on the species, in terms of individuals and population, including consideration of the cumulative effects of the action on the species and habitat;



ENCLOSURE



- (5) analyze alternative actions that may provide conservation measures;
- (6) conduct any studies necessary to fulfill the requirements of (1) through (5) above;
- (7) review any other information.

At the conclusion of the biological assessment, as described above, the Federal agency should prepare a report documenting the results.

If the biological assessment reveals that the proposed project is likely to affect listed species, the formal consultation process shall be initiated by writing to the Regional Director, National Marine Fisheries Service, 9450 Koger Boulevard, Duval Building, St. Petersburg, Florida 33702. If no effect is evident, there is no need for formal consultation. We would, however, appreciate the opportunity to review your biological assessment.

If you have any questions, please contact Andreas Mager, Jr., Fishery Biologist, Southeast Regional Office, FTS 826-3503.

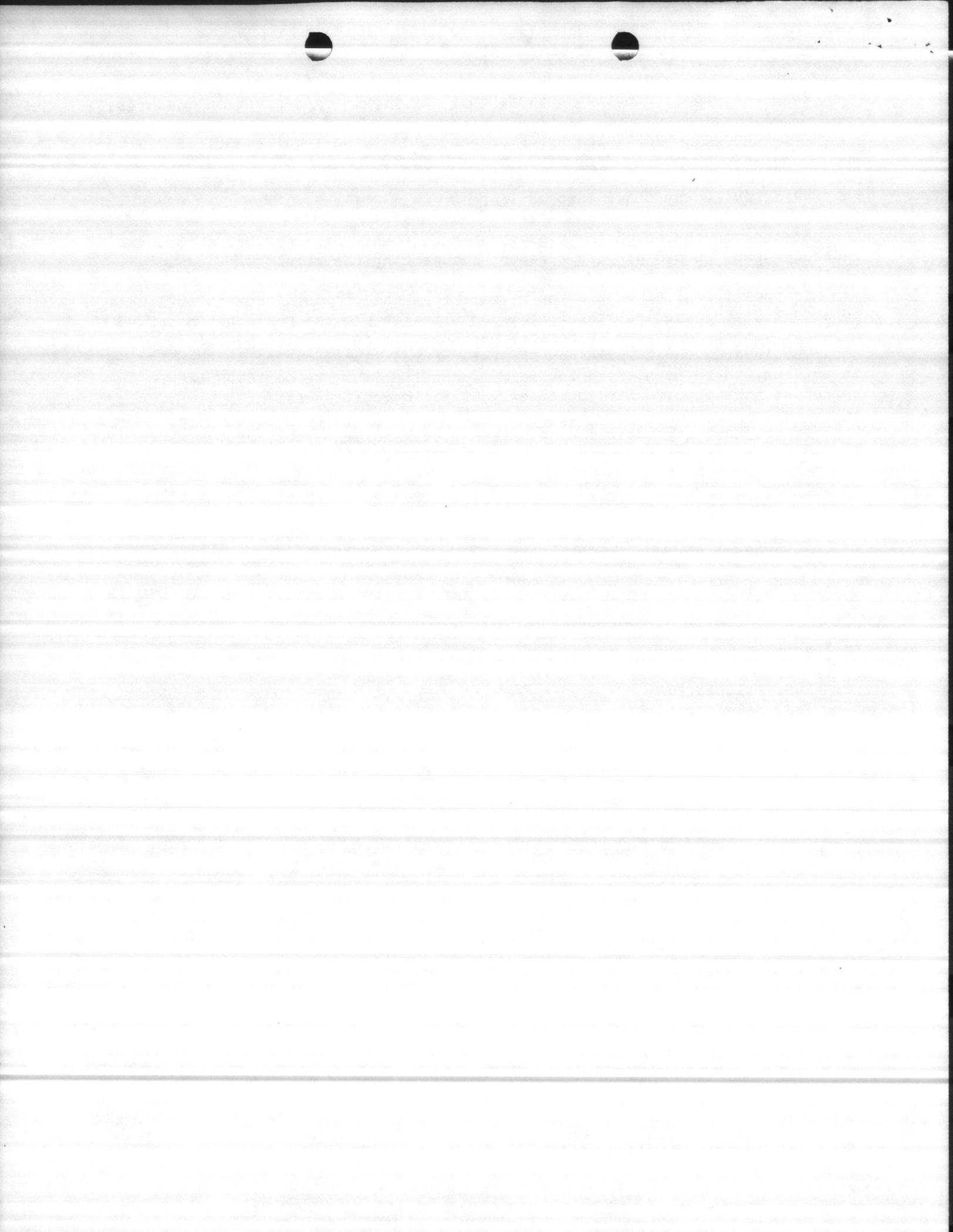
Sincerely yours,

*Charles A. Oravec*

for D. R. Ekberg  
Chief, Environmental &  
Technical Services Branch

Enclosure

cc: FWS, Atlanta, GA  
FWS, Raleigh, NC



ENDANGERED AND THREATENED SPECIES AND CRITICAL HABITATS UNDER  
NMFS JURISDICTION

North Carolina

<u>LISTED SPECIES</u>	<u>SCIENTIFIC NAME</u>	<u>STATUS</u>	<u>DATE LISTED</u>
Fin Whale	<u>Balaenoptera physalus</u>	E	12/2/70
Humpback Whale	<u>Megaptera novaeanglinae</u>	E	12/2/70
Right Whale	<u>Eubaleana glacialis</u>	E	12/2/70
Sei Whale	<u>Balaenoptera borealis</u>	E	12/2/70
Green Sea Turtle	<u>Chelonia mydas</u>	Th	7/28/78
Hawksbill Sea Turtle	<u>Eretmochelys imbricata</u>	E	6/2/70
Kemp's (Atlantic) Ridley Sea Turtle	<u>Lepidochelys kempii</u>	E	12/2/70
Leatherback Sea Turtle	<u>Dermochelys coriacea</u>	E	6/2/70
Loggerhead Sea Turtle	<u>Caretta caretta</u>	Th	7/28/78
Shortnose Sturgeon	<u>Acipenser brevirostrum</u>	E	3/11/67

SPECIES PROPOSED FOR LISTING

None

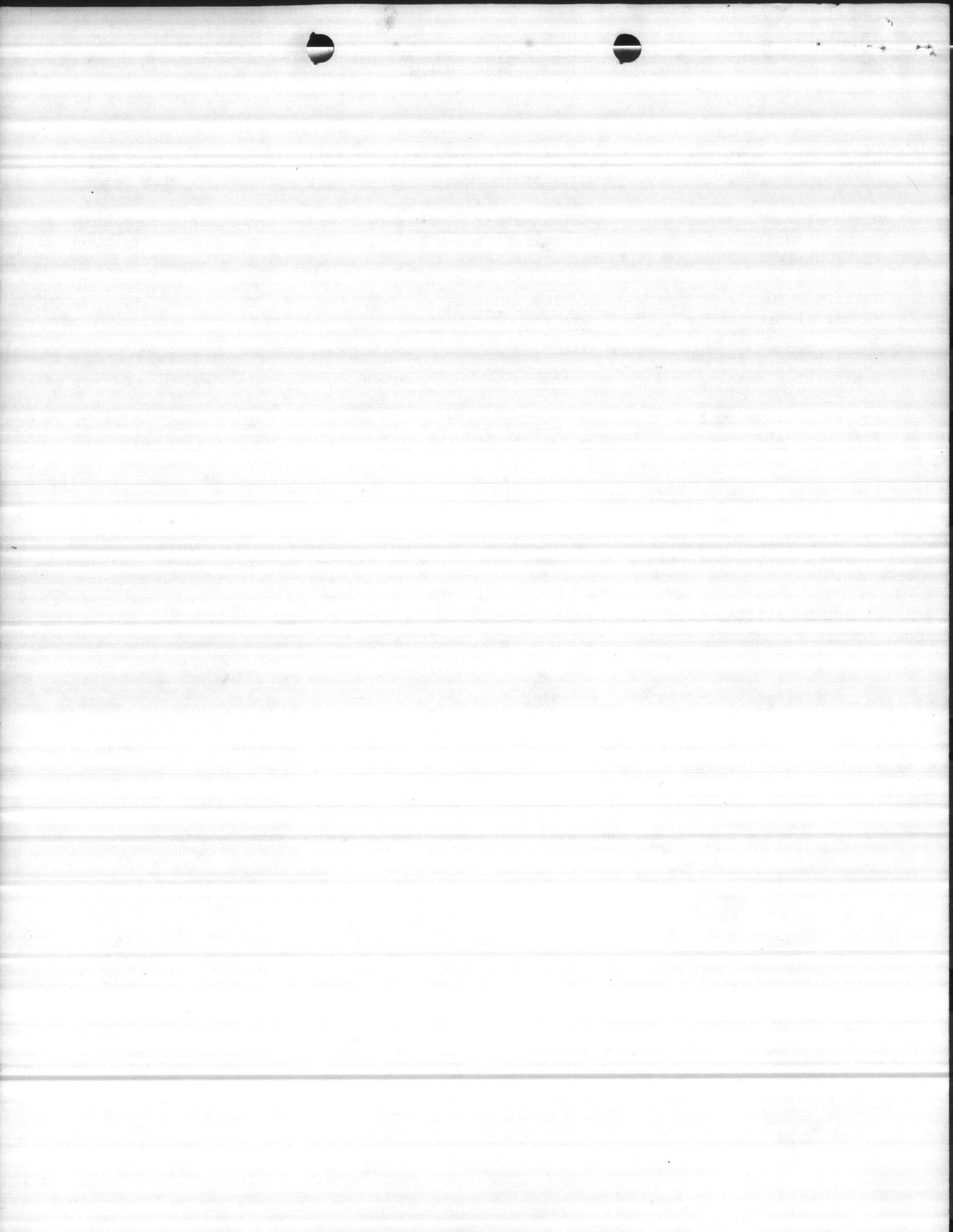
LISTED CRITICAL HABITAT

None

PROPOSED CRITICAL HABITAT

None

1. Include sperm whale only for deep water projects.
2. Humpback and right whales occur in shallow water.



Copy to Charles

UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

6280/7  
FAC

FIRST ENDORSEMENT on Dir, NREAD ltr 11015/2 NREAD dtd 6Feb85

From: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

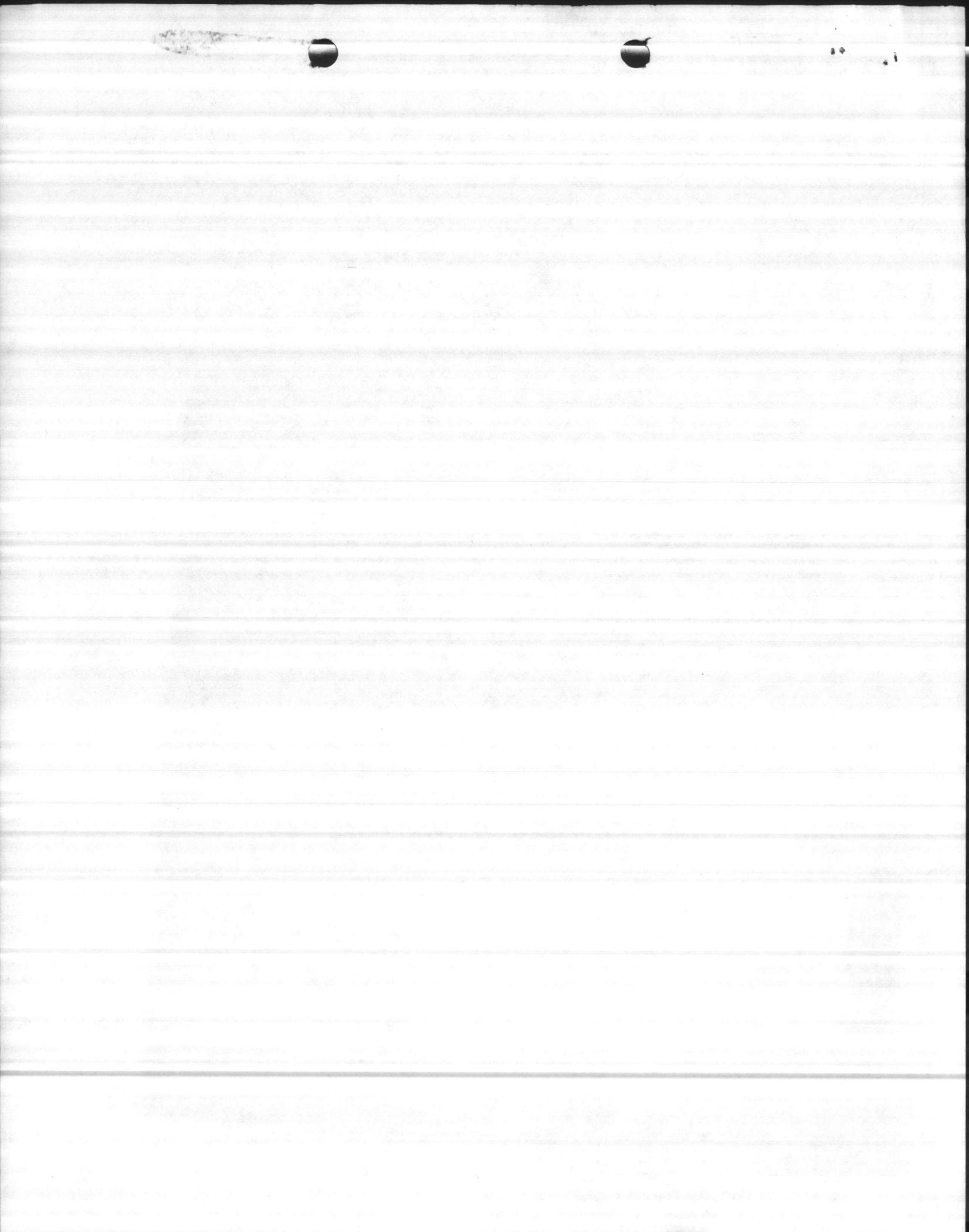
To: Assistant Chief of Staff, Training and Operations

Subj: PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

1. Forwarded. Recommend the procedures described in reference (a) of the basic letter be employed for live-firing operations affecting offshore waters.
2. POC on this matter is Mr. J. Wooten, extensions 2083/2195.

M. G. LILLEY

Copy to:  
→ NREAD  
EnvEngr



11015/2  
NREAD  
6 Feb 1985

From: Director, Natural Resources and Environmental Affairs  
Division, Marine Corps Base, Camp Lejeune  
To: Assistant Chief of Staff, Training, Marine Corps Base,  
Camp Lejeune  
Via: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

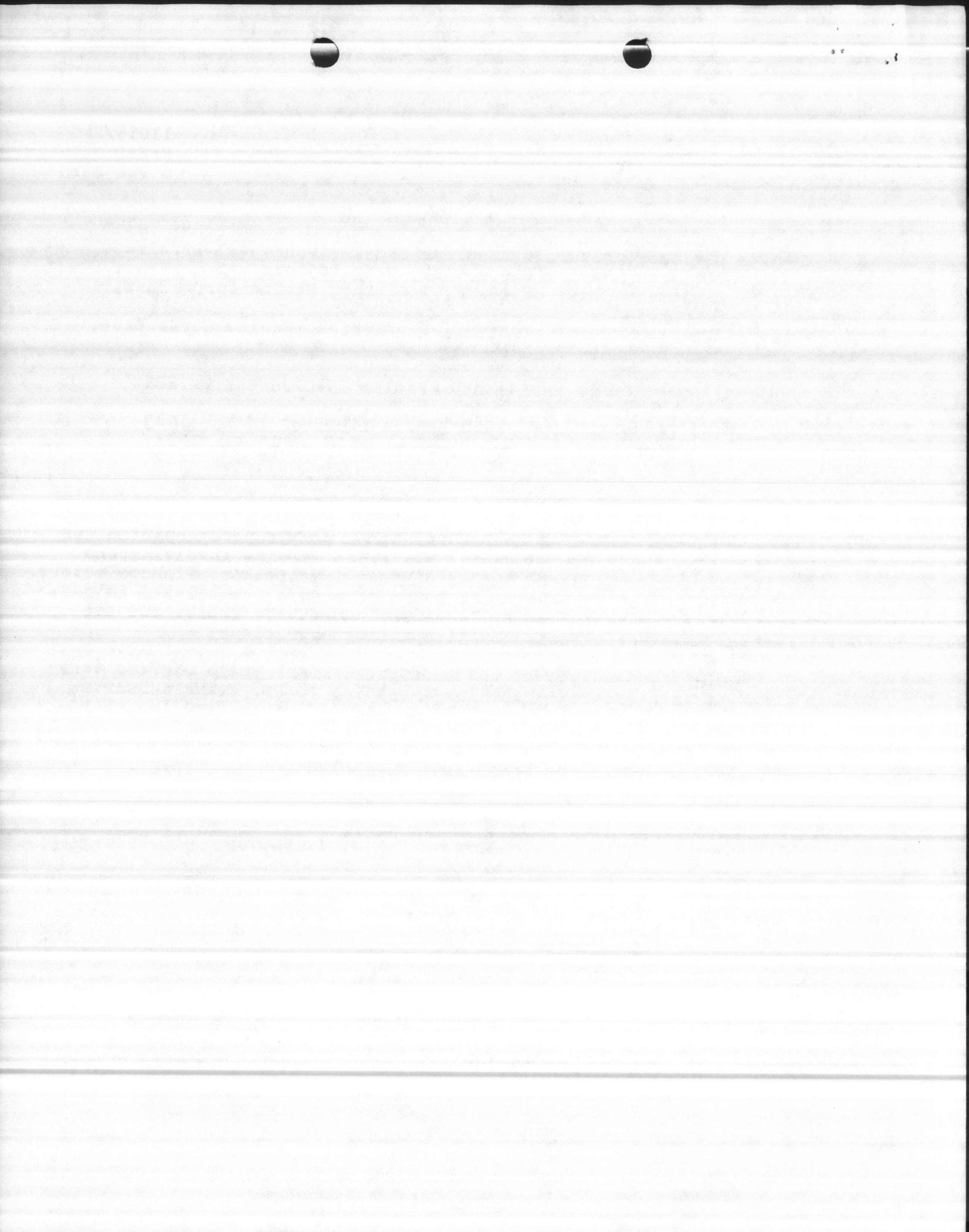
Subj: PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

Ref: (a) Dir NREAD ltr NREAD/DDS/th 11015 of 16 Mar 1983  
(b) AC/S TRNG ltr TRNG/ARB/eks 1500 of 17 Mar 1983  
(c) AC/S TRNG ltr TRNG/AVR/kak 1500 of 18 Mar 1983

1. References (a), (b) and (c) set forth regulations for avoiding adverse impact to whales and sea turtles relative to live firing into offshore waters at Onslow Beach. A non-jeopardy opinion was rendered by the National Marine Fisheries Service involving the protection of endangered whales during migration in offshore waters. This opinion was contingent upon the procedure established in reference (c) for aerial overflights to insure that whales and sea turtles were not affected by live firing operations.

2. Females and calves of the endangered right whale migrate very close to this area of coastline according to Dr. Frank Schwartz, Institute of Marine Sciences, University of North Carolina, Morehead City, North Carolina. It is therefore recommended that the procedures listed in reference (b) be continued during the period of spring migration 20 February-7 April 1985.

J. I. WOOTEN



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

NREAD/DDS/th  
11015

1 6 MAR 1983

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

Subj: Protection of Endangered Species in Offshore Waters

Ref (a)

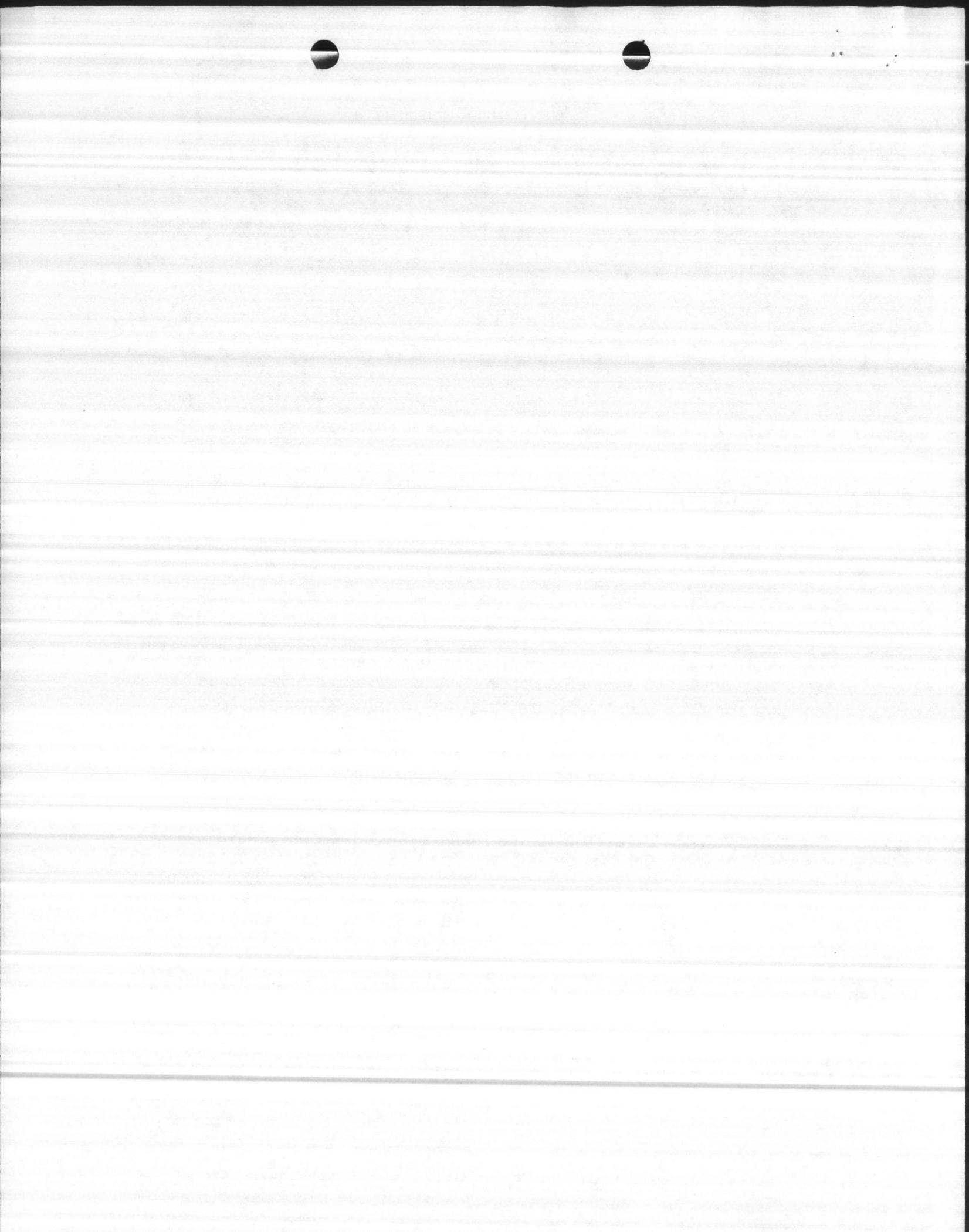
Ref: (a) Section 7, Endangered Species Act

Encl: (1) CG MCB ltr MAIN/CDP/th 11015 of 17 Nov 1981  
(2) NMFS ltr of 23 Nov 1981  
(3) CG MCB ltr NREAD/JIW/th 11015 of 4 Nov 1982  
(4) NMFS ltr of 8 Nov 1982  
(5) CG MCB ltr NREAD/JIW/jc 11015 of 12 Jan 1983  
(6) NMFS ltr of 3 Mar 1983  
(7) Whale Identification Packet

1. The purpose of this letter is to advise that formal consultation has been completed with the National Marine Fisheries Service (NMFS) relative to the impact of live-firing into offshore waters on nationally listed endangered and threatened species pursuant to the reference. Enclosures (1) through (6) document the consultation process. Based on the information provided in enclosures (1) through (6), the NMFS has concurred with Base's determination that current live-firing activity into the offshore waters, as described in enclosure (3), would not affect the subject species which are under NMFS purview. As specified in enclosure (6), NMFS concurrence was conditional with a possibility of reentering consultation if changes in circumstances occur. It is requested that any changes or proposed changes in firing into the subject waters be reported to this office so as to permit continued compliance with the reference.

2. Also, note that enclosure (4) required this Command to provide NMFS with a description of actions to be taken to avoid impact on individual members of the protected species which may be present in the subject waters. Enclosure (5) provided the requested information. Therefore, it should be noted that NMFS concurrence is also contingent upon implementation of the protective measures listed in enclosure (5).

3. Dr. Frank Schwartz, an expert on whales with the Institute of Marine Sciences, University of North Carolina at Morehead City, was contacted to determine appropriate methods to follow for detecting any whales in the area so as to avoid possible adverse impact. Dr. Schwartz advised that whales annually move through offshore waters during their spring migration occurring 20 February - 7 April. Females and calves of the right whale migrate very close to the coastline during spring migration. Whales may be in a given area for several days and then suddenly move quite rapidly sometimes traveling to a maximum distance of ten miles within a 24-hour period. The best time to observe whales from the air is from 1200-1500 hours. Enclosure (7) contains material for identifying various species of whales. Dr. Schwartz's recommendations were also based on consultation with Dr. Howard E. Winn, Whale Coordinator, University of Rhode Island, concerning annual whale migration off Onslow



TRNG/ARB/eks  
1500  
17 Ma

Ref (b)

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

Subj: Aerial Flights to Protect Endangered Species in Off Waters

Ref: (a) Yr ltr NREAD/DDS/th over 11015 dtd 16 Mar 83; same subject

1. The reference discussed measures believed necessary to provide protection for certain endangered marine species which, periodically/seasonally, frequent the offshore waters of this installation.

2. Notwithstanding the information contained in paragraph 3 which indicates the best time to observe the whales is 1200-1500, the present practice of requiring an aerial reconnaissance of the off-shore surface danger area prior to commencing live fire on effected ranges is normally concurrent with units' firing request, most typically 0730-0900. It is believed that flights during the period just prior to the range(s) "going hot" are the better of the periods in that:

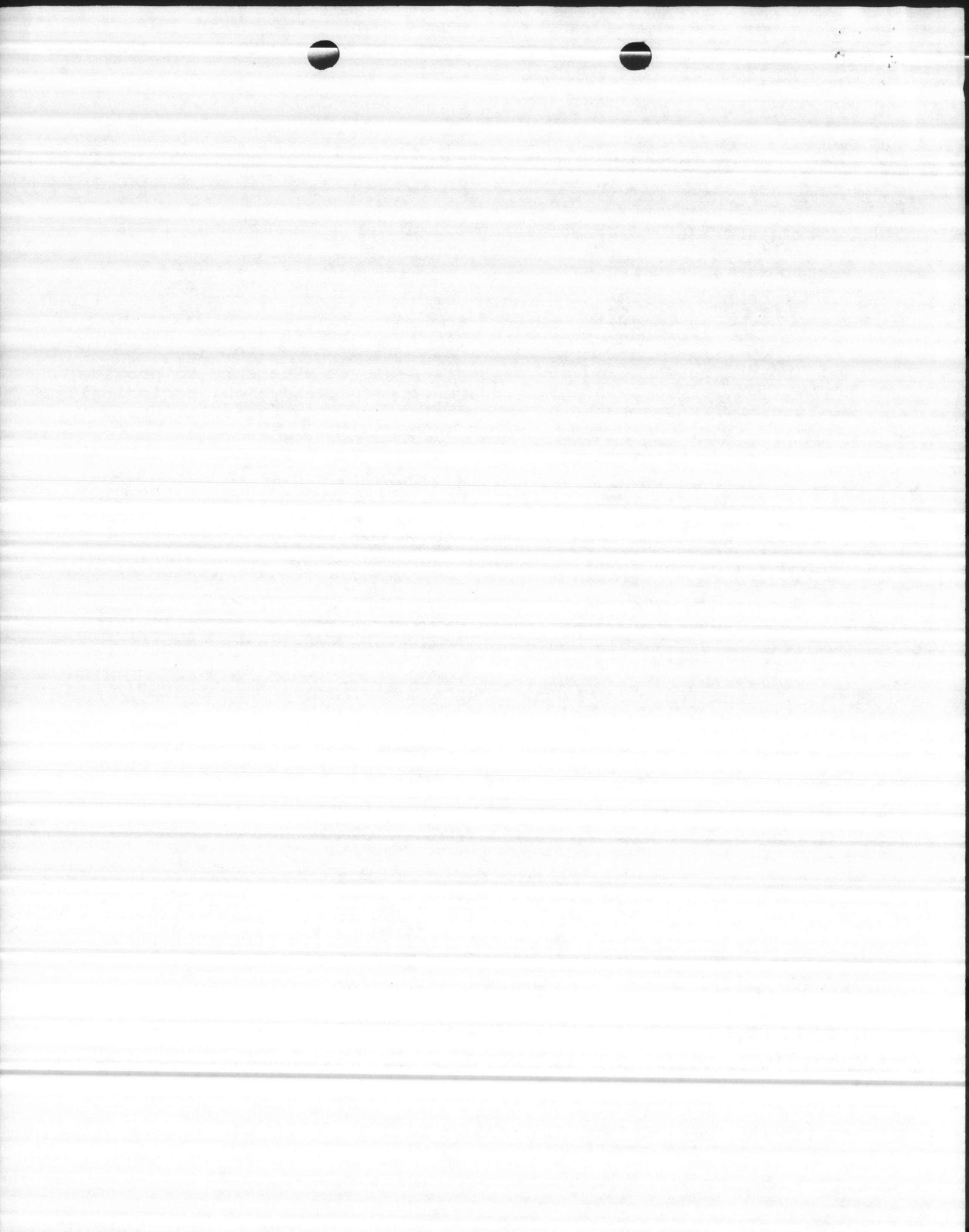
a. The aerial visual recon is already a range requirement and, accordingly, this would not generate a totally new wing requirement. It would, however, substantially increase the amount of area searched, with resultant increase in fuel/maintenance/flight hours involved.

b. Under normal weather conditions, both aerial observation and water clarity tend to be optimum in the earlier morning hours, and decrease markedly as the sun causes wind and waves offshore, which would enhance detection of whales if the flights were before the suggested 1200-1500 time period.

c. It is further understood that the clear intent of these reconnaissance flights is to attempt to take all prudent measures to protect these whales from possible firing danger (paragraph 3 of enclosure (5) to reference (a) germane), so these flights would be conducted only in association with live firing on ranges impacting into the offshore danger area.

3. Additional instructions for these flights and specifics relative to tower observers shall be promulgated as soon as practical.

A. R. BRUNELLI, Jr.



NREAD/DDS/th  
11015  
1 6 MAR 1983

Subj: Protection of Endangered Species in Offshore Waters

Beach and Brown's Island relative to protecting the species.

4. Therefore, in addition to all existing precautionary procedures listed in enclosure (5), the Training Facilities Officer should implement the following procedures immediately and annually hereafter, during the period of 20 February - 7 April:

a. Schedule daily aerial flights covering an area extending four miles seaward from the beach from Bogue Inlet southward to New Topsail Inlet, to determine if any whales are present (See Enclosure (7)).

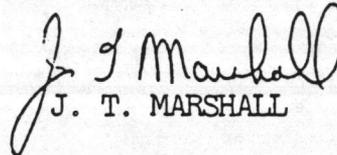
b. Conduct flights between 1200-1500 hours when possible and in a manner which allows the pilot to carefully observe the entire area within boundaries described in paragraph 4a above.

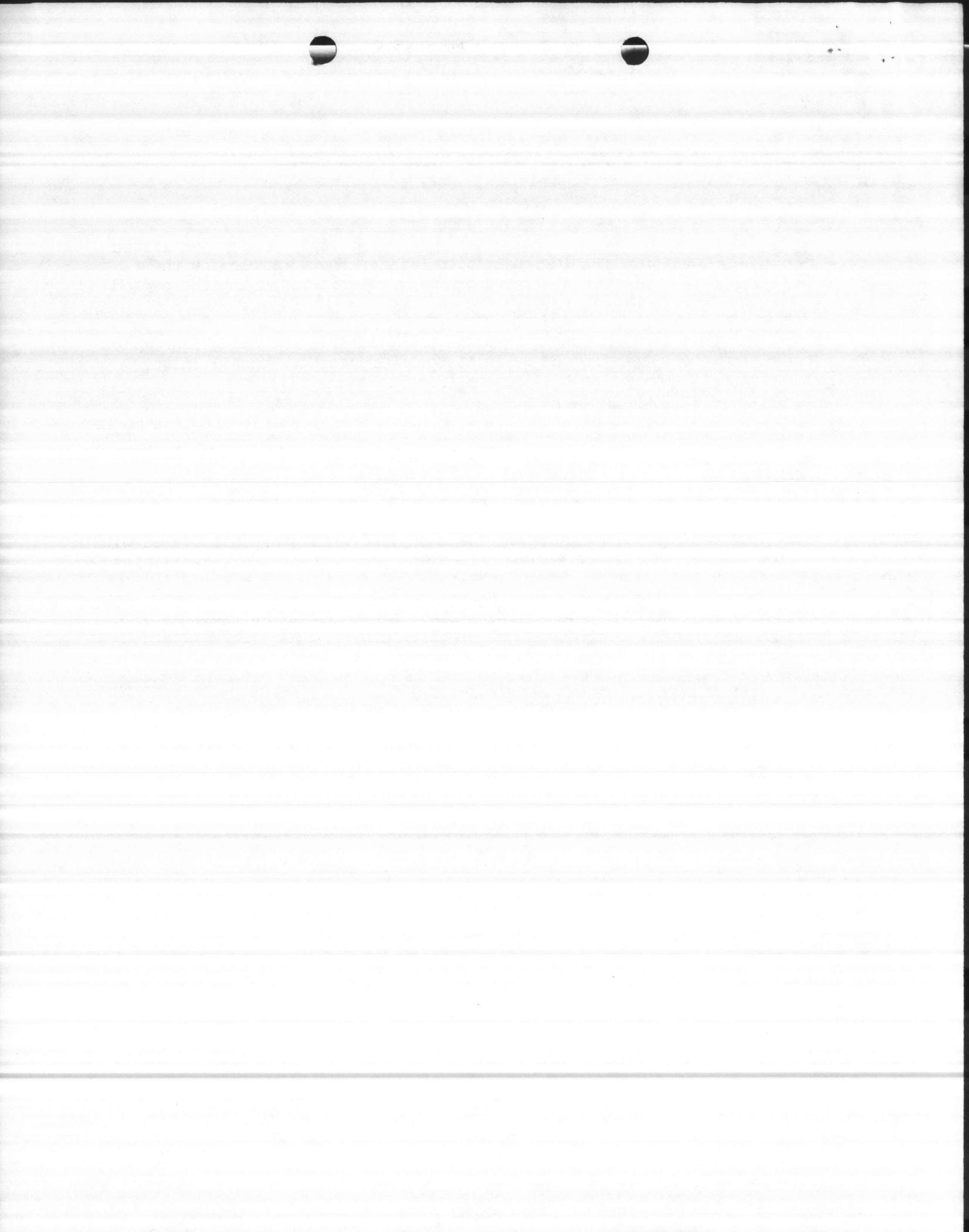
c. Flights should be flown at intervals of 24 hours or less.

d. Discontinue live-firing exercises anytime whales are discovered within 10 miles of the E-1, N-1 and BT-3 Range Areas and contact AC/S, Facilities.

5. Implementation of procedures and methods for protecting sea turtles also involved in this consultation with NMFS will be forwarded by separate correspondence in the near future.

6. Point of contact in this matter is Mr. Julian Wooten, Director, Natural Resources and Environmental Affairs Division, extension 2083.

  
J. T. MARSHALL





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

*forma*

IN REPLY REFER TO  
TRNG/AWR/kak  
1500  
18 Mar 1983

FIRST ENDORSEMENT on TFACO ltr TRNG/ARB/eks over 1500 dtd 17 Mar 1983

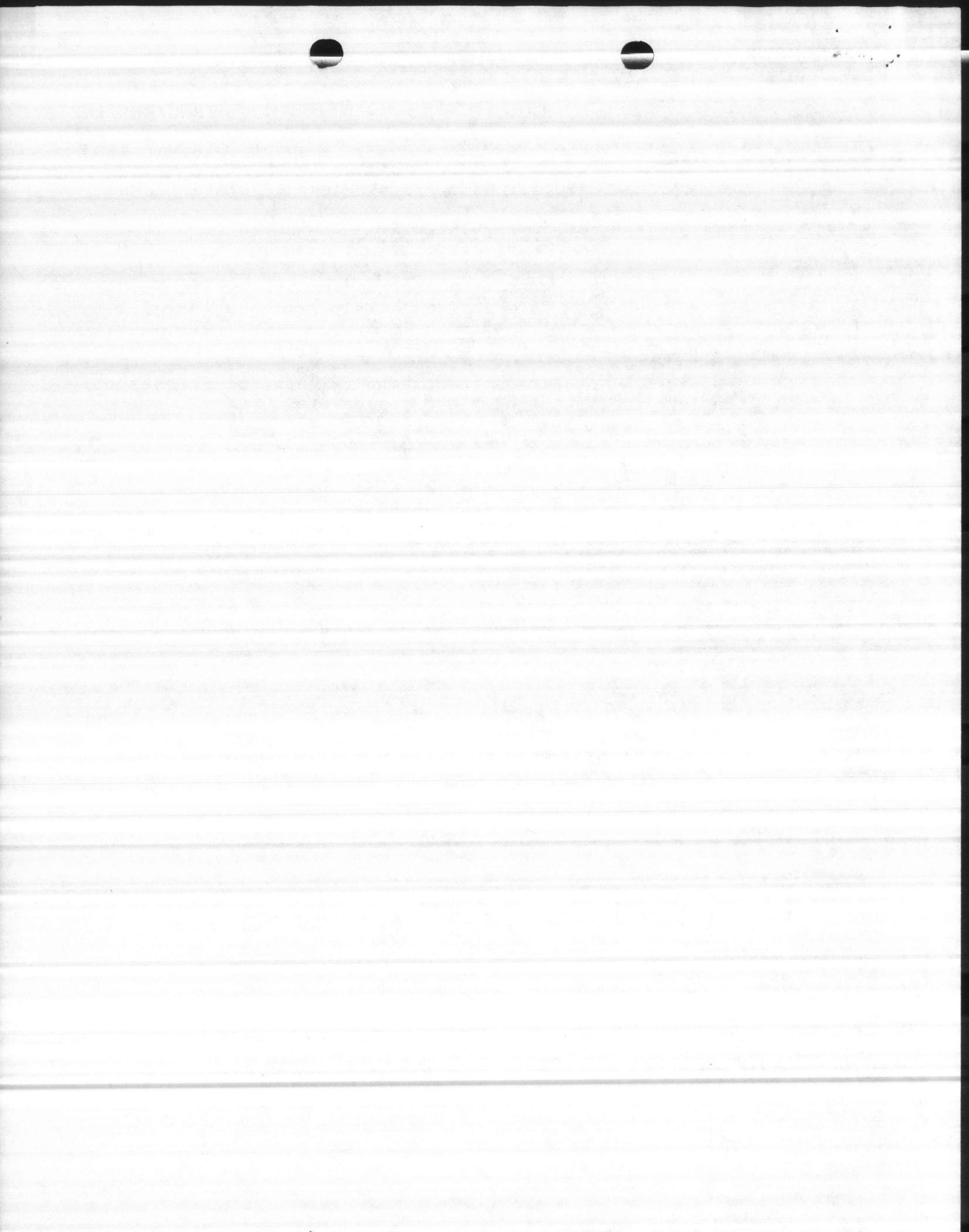
From: Assistant Chief of Staff, Training  
To: Assistant Chief of Staff, Facilities

Subj: Aerial Flights to Protect Endangered Species in Off:  
Waters

*Ref(c)*

1. Forwarded as discussed on 17 Mar 1983.
2. You interposed no objection to morning flights and flights only on days when live firing taking place to seaward.

M. P. SAMS  
By direction



Col's  
Comments

OPNAV 5216/144 (REV 6-70)  
S/N 0107-LF-778-8097  
DEPARTMENT OF THE NAVY

## Memorandum

DDS  
CJP

DATE: 18 MAR 83

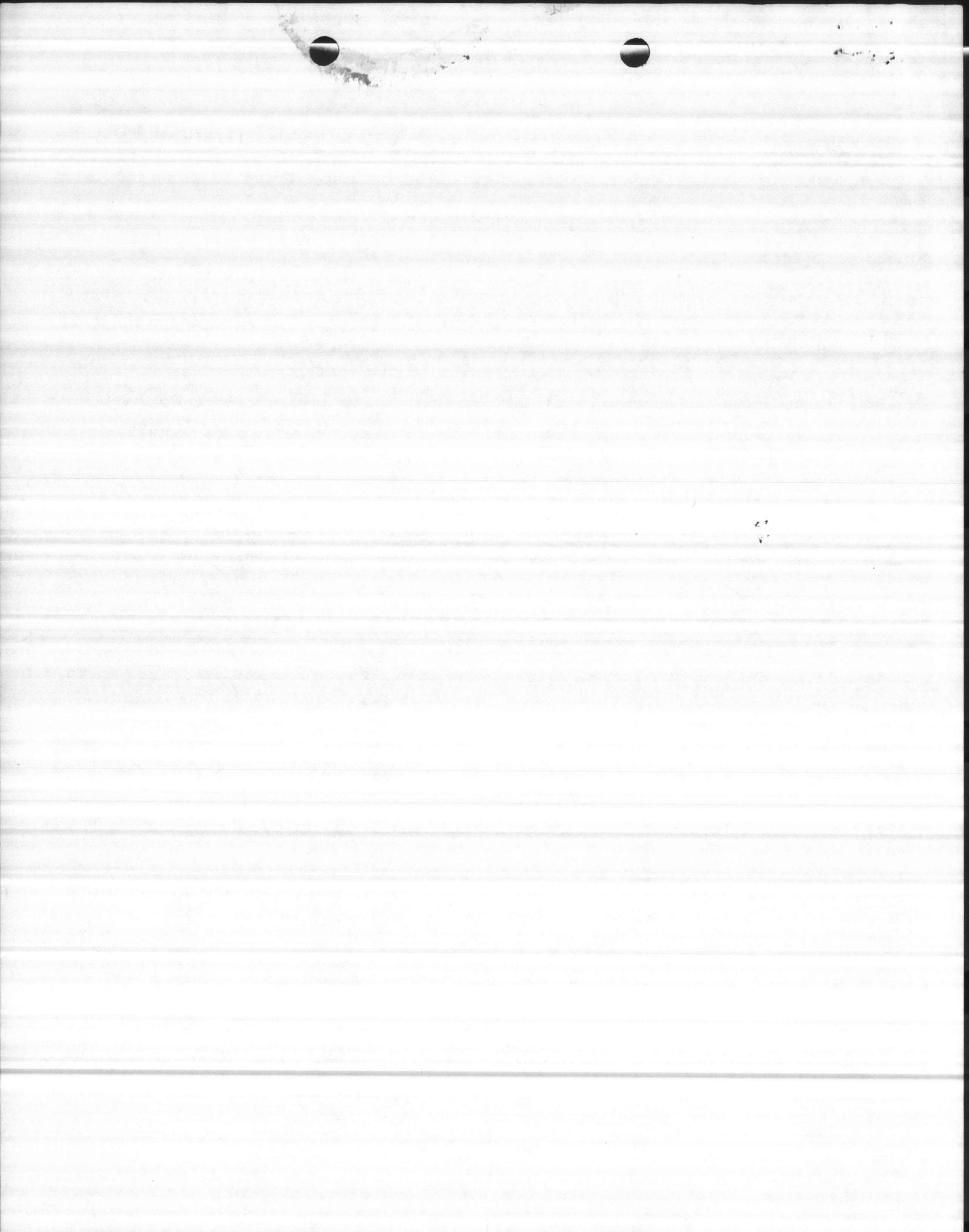
FROM: A/C/S Fae

TO: DWR NR(EA))

SUBJ:

Here is TRN's comments on our package. I have talked to them " LTCOL SAMS/LTCOL BRUNELLI and COL RUIER AND THEY KNOW that they have to do a flight before they can fire and the area must be clear.

JJ Marshall



Charles



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

IN REPLY REFER TO:  
6280  
TRNG/OPS  
4 Mar 85

SECOND ENDORSEMENT on Dir, NREAD ltr 11015/2 NREAD dtd 6 Feb 85

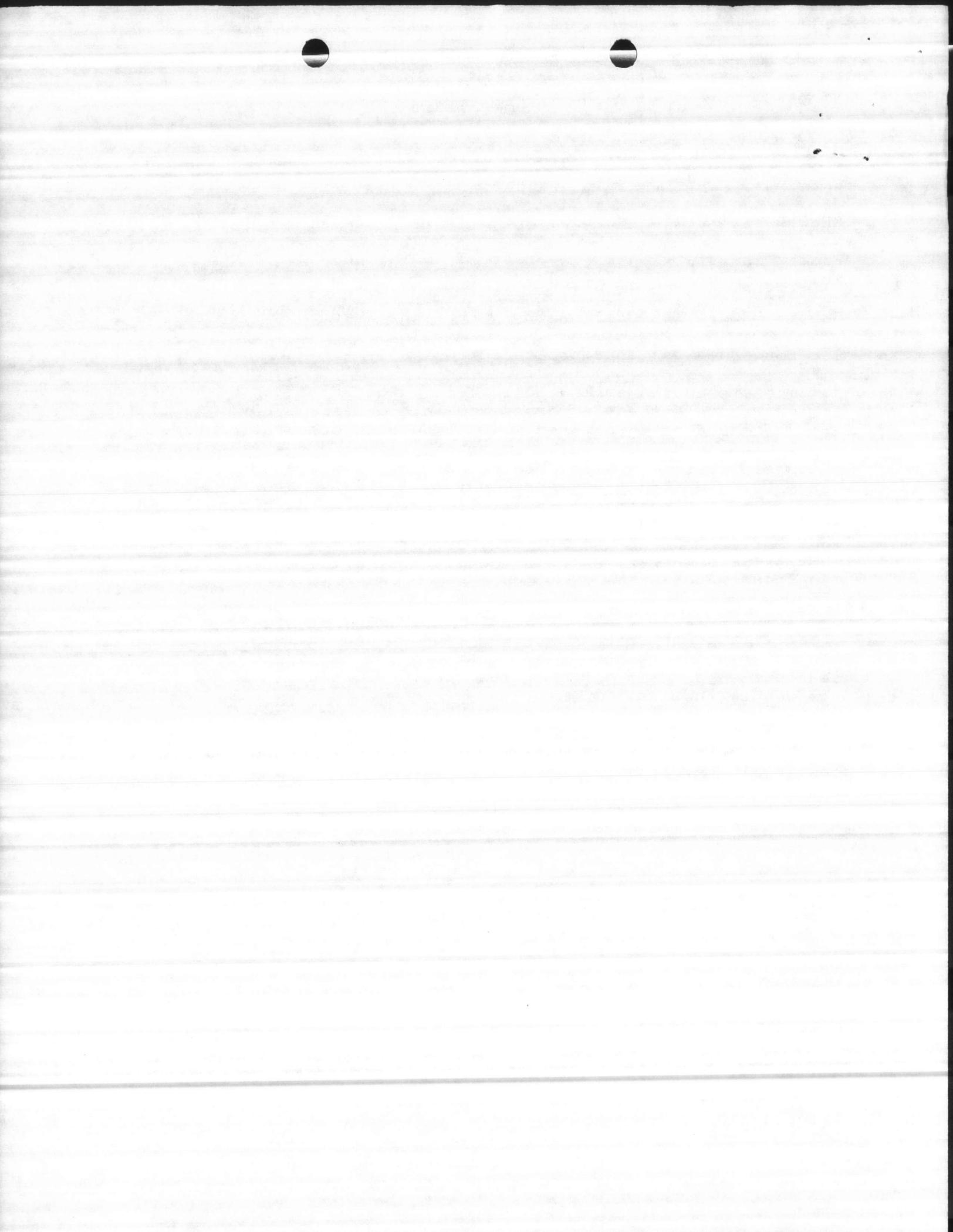
From: Assistant Chief of Staff, Training and Operations  
To: Training Facilities Officer

Subj: PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

1. Forwarded for appropriate action.
2. The procedures agreed to in 1983 in consultation with NMFS include these already incorporated in the current SOP: no firing at endangered or threatened species; manned observation towers; and aerial overflights of the impact area. To that we should add a cease fire if sightings occur. Since the new Range SOP will specify that helicopter overflights will be used for safety prior to firing when reasonably available but that they are not an absolute requirement, we should make every attempt to utilize them between 20 Feb and 7 April, either prior to firing or during the period when whales are evidently most active near the surface, 1200-1500.
3. Tower guards, boat crews, air crews, and others with the capability to observe the ocean prior to and during firing should be properly instructed. Any doubts as to the type of whales or sea turtles transiting the area should be resolved in favor of the whales/turtles.
4. These procedures should be incorporated in the revised Range SOP to ensure all range users are familiar with them and for continuity of effort.
5. Copies of the letters documenting the consultation process have been forwarded for your permanent retention.

  
J. A. SPEICHER

Copy to:  
AC/S, FAC  
EnvEngr  
→ NREAD



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

6280/7  
FAC

FIRST ENDORSEMENT on Dir, NREAD ltr 11015/2 NREAD dtd 6Feb85

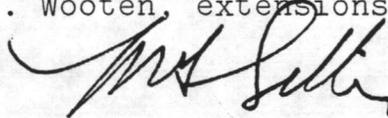
From: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

To: Assistant Chief of Staff, Training and Operations

Subj: PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

1. Forwarded. Recommend the procedures described in reference (a) of the basic letter be employed for live-firing operations affecting offshore waters.

2. POC on this matter is Mr. J. Wooten, extensions 2083/2195.

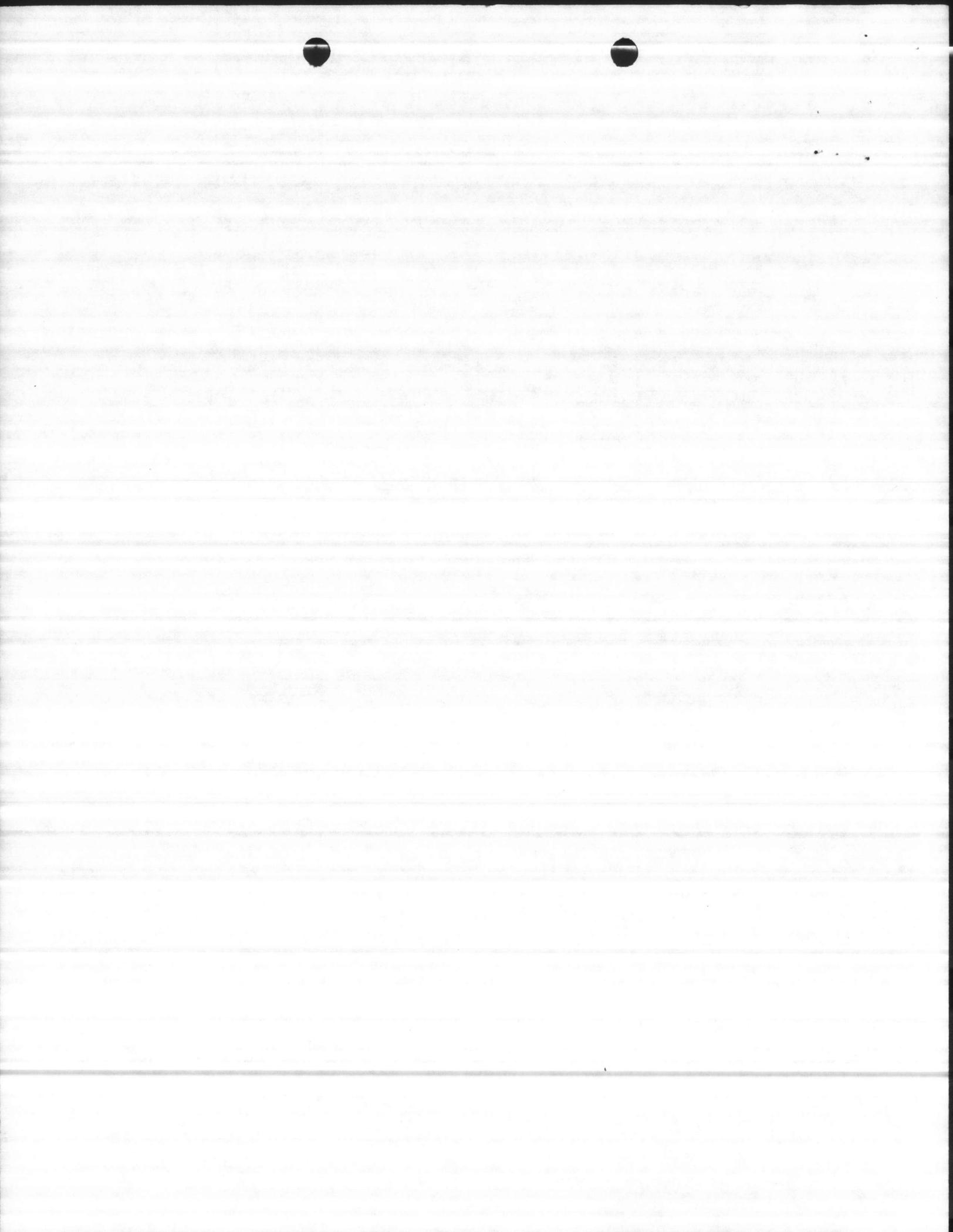
  
M. G. LILLEY

Copy to:  
NREAD  
EnvEngr

*Bert,*

*This is intended only to be a reminder that the spring migration of endangered whales may bring them close to our coastline and through the impact area. I believe the agreement with training was to ensure a fly over prior to firing to check for the presence of whales so that appropriate protective measure can be taken*

*W. F. Felt*





**UNITED STATES MARINE CORPS**  
Natural Resources and Environmental Affairs Division  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

11015/2  
NREAD  
6 Feb 1985

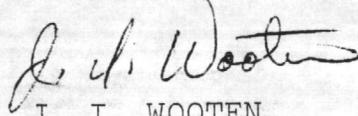
From: Director, Natural Resources and Environmental Affairs  
Division, Marine Corps Base, Camp Lejeune  
To: Assistant Chief of Staff, Training, Marine Corps Base,  
Camp Lejeune  
Via: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune

Subj: PROTECTION OF ENDANGERED SPECIES IN OFFSHORE WATERS

Ref: (a) Dir NREAD ltr NREAD/DDS/th 11015 of 16 Mar 1983  
(b) AC/S TRNG ltr TRNG/ARB/cks 1500 of 17 Mar 1983  
(c) AC/S TRNG ltr TRNG/AWR/kak 1500 of 18 Mar 1983

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2. Females and calves of the endangered right whale migrate very close to this area of coastline according to Dr. Frank Schwartz, Institute of Marine Sciences, University of North Carolina, Morehead City, North Carolina. It is therefore recommended that the procedures listed in reference (b) be continued during the period of spring migration 20 February-7 April 1985.

  
J. I. WOOTEN



## Rare right whale spotted off North

By the Associated Press

A lone young right whale has been spotted off Cape Fear by a team of scientists scanning the coast from North Carolina to Florida for the almost-extinct species.

The right whale spotted Sunday was about 35 feet long and believed to be about 2 years old, said Jim Lanier, director of the Marine Resources Center at Fort Fisher. The average adult is about 50 feet long and weighs 60 tons, he said.

Based at the New England Aquarium in

Boston, the scientists estimate the whales' total population at about 300, he said.

"So seeing one of them is exciting for them," said Lanier, who assisted the scientists during their two-day stay.

Hunted from the 1650s to the 1920s, right whales decreased in number, and their habits remained a mystery. When a small group of the whales was spotted off the coast of Maine five years ago, researchers immediately began studying them.

Through aerial surveys, the team hopes to learn more about the whales' migration

routes and breeding areas. Learning the location of their wintering and calving grounds could help protect the mammals.

The New England group, led by zoologist John Prescott, includes a team of scientists and off-duty airline pilots searching from North Carolina to Florida.

On Saturday, the team spotted an adult whale off the Georgia coast and a mother and calf off Florida.

Two years ago, a photograph of a right whale taken off the Georgia coast led the scientists south. Last winter, they discov

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ered 14 whales — including four new-born calves — off the Georgia coast. The find fueled speculation that Georgia's offshore waters serve as the whales' calving grounds.

Dr. Frank Schwartz, a professor at the University of North Carolina's Institute of Marine Sciences at Morehead City, said the yearly northward migration of the whales can often be seen from the beach.

Nine right whales were spotted off North Carolina's coast during the late-February to early-April migration in 1984,

but Schwartz said 24 were sighted in 1983.

"This year we expect at least as many as last year, probably more," he said.

Last year was a bad year for whale sightings off North Carolina's coast because the whales were diverted further offshore by cold-water eddies in the Gulf Stream, Schwartz said. Satellite photographs show only one cold-water eddy this year near Charleston, S.C., so the whales are likely to migrate in a path close to the shore.

