corrected dates UNITED STATES MARINE CORPS Marine Corps Base Camp Lejeune, North Carolina 28542 NREAD/DDS/th 11015 MAR 1 6 1989 Assistant Chief of Staff, Facilities Assistant Chief of Staff, Training Subj: Protection of Endangered Species in Offshore Waters Ref: (a) Section 7, Endangered Species Act Encl: (1) CG MCB 1tr MAIN/CDP/th 11015 of 17 Nov 1981 (2) NMFS ltr of 23 Nov 1981 (3) CG MCB 1tr NREAD/JIW/th 11015 of 4 Nov 1982 (4) NMFS ltr of 8 Nov 1982 (5) CG MCB ltr NREAD/JIW/je 11015 of 12 Jan 1983 (6) NMFS 1tr 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 MMPS purview. As specified in enclosure (6), NMPS 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 NMTS 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 - 17 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

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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.

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J. T. MARSHALL

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MAIN/CDP/th 11015 17 November 1981

Mr. Harold Allen
Acting Director Southeast Region
National Marine Fisheries Services
National Oceanic Atomospheric 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).

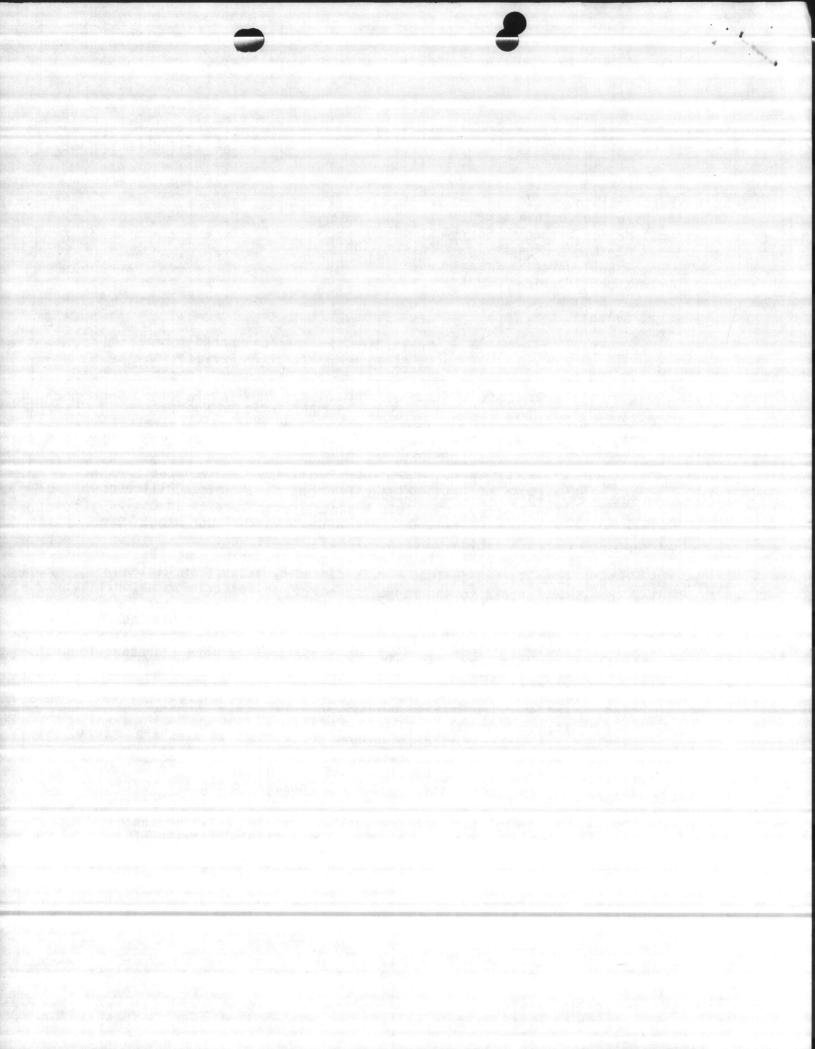
Formal consultation is now in progress which initially involved the Eastern Brown Pelican (Pelecanus occidentalis) and the American Alligator (Alligator mississippiensis). Possible impacts to sea turtles at Onslow Beach and in offshore waters from the Onslow Beach North Tower Range were noted during 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





# UNITED STATES DE. TMENT 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;





- (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.

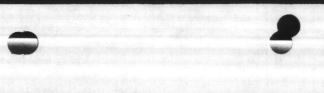
Sincerely yours,

Charles a. Oranet

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

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



NREAD/JIN/th 11015: 1 4 NOV 1982

Mr. D. R. Ekberg, Chief Environmental and Technical Services Branch Hational Marine Fisheries Service, Southeast Region 9450 Koger Boulevard St. Petersburg, Florida 33702

Dear Mr. Ekberg:

This is in response to your letter of 23 November 1981 outlining the consultation process required by the Endangered Species act for training activities conducted at Marine Corps Base, Camp Lejeune, North Carolina.

The training that occurs and constitutes a major federal action primarity involves utilization of coastal waters as a buffer zone for explosive projectiles directed toward beach land and as an impact area for non-explosive projectiles directed toward waterborne targets. Secondarily, the waters receive non-explosive debris resulting from detonation of airborne anti-aircraft missiles. The current training does not represent a new action as the range has been in continuous use since the 1940's and the offshore portion served as an impact area for explosive artillery and aircraft ordnance for more than twenty years. That activity has left a large, varied quantity of debris and duds in the offshore waters:

A biological assessment of the possible effects on threatened and endangered species was conducted in accordance with your guidance. Because of safety considerations in the area, physical inspection and survey work was restricted. However, the observations and discussions with outside consultants are sufficient to conclude that continuation of military training is not likely to affect any endangered or threatened species.

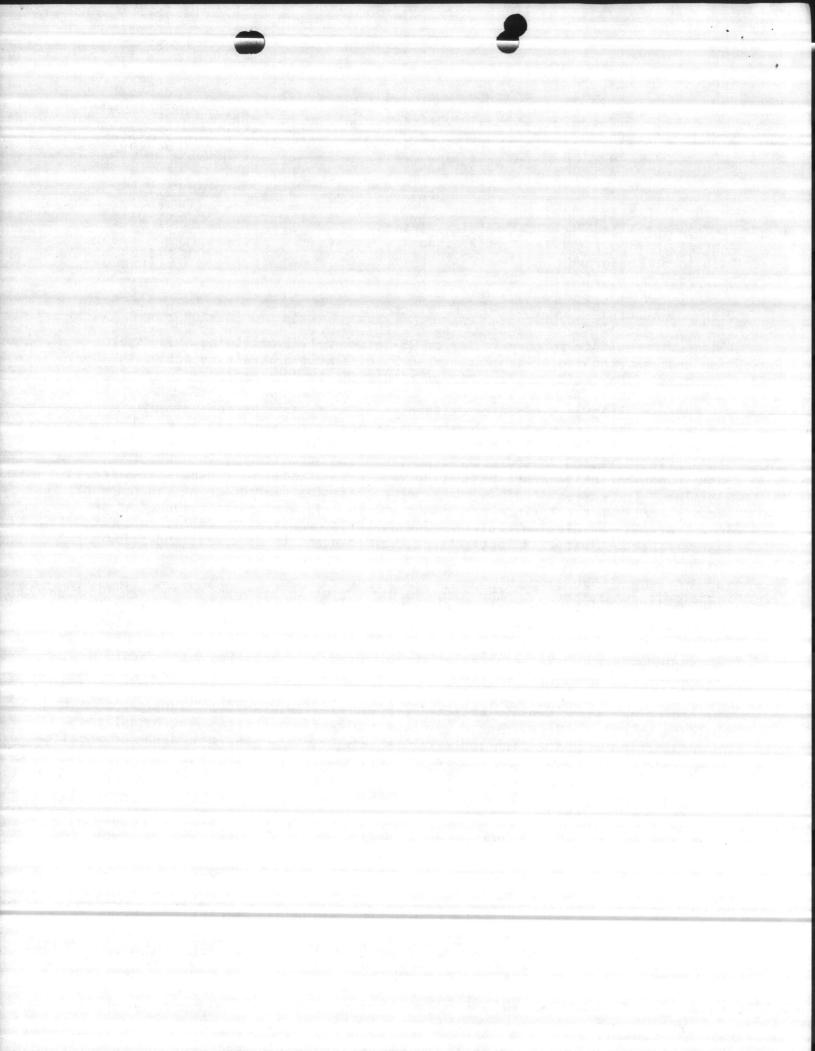
The biological assessment is attached for your review. Any questions or comments would be welcomed. As evidenced by close and continuing management activities in conjunction with the Fish and Wildlife Service, the Base is desirous of meeting requirements for species undersyour jurisdiction.

Sincerely,

D. J. FULHAM
Brigadier General, U. S. Marine Corps
Commanding

Encl

Blind Copy to: AC/S, Fac



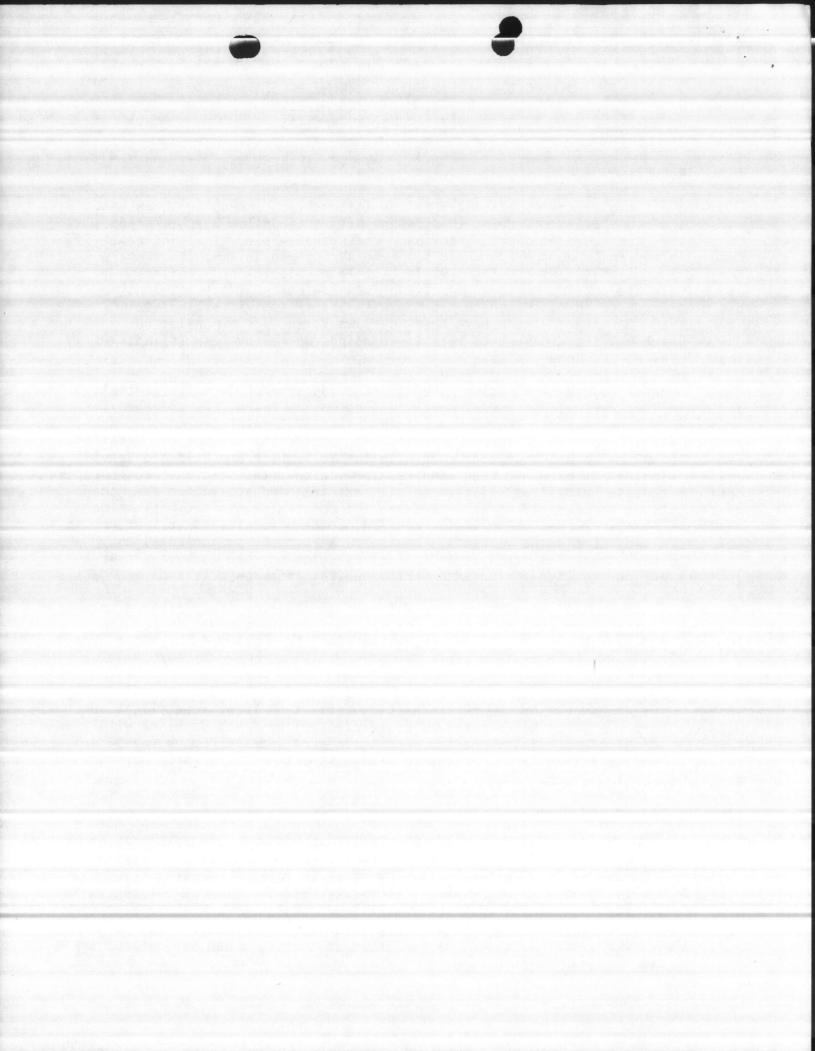
BIOLOGICAL ASSESSMENT OF MARINE HABITAT Onslow Beach, Marine Corps Base Camp Lejeune, North Carolina

#### 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 physolus), Humpback Whale (Megatera nouaeanglinae) and Right Whale (Eubaleana glaciolis). 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 (Demochelys coriacea) and Hawksbill (Erectmochelys 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 noticable 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 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 vorktown 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
- 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.

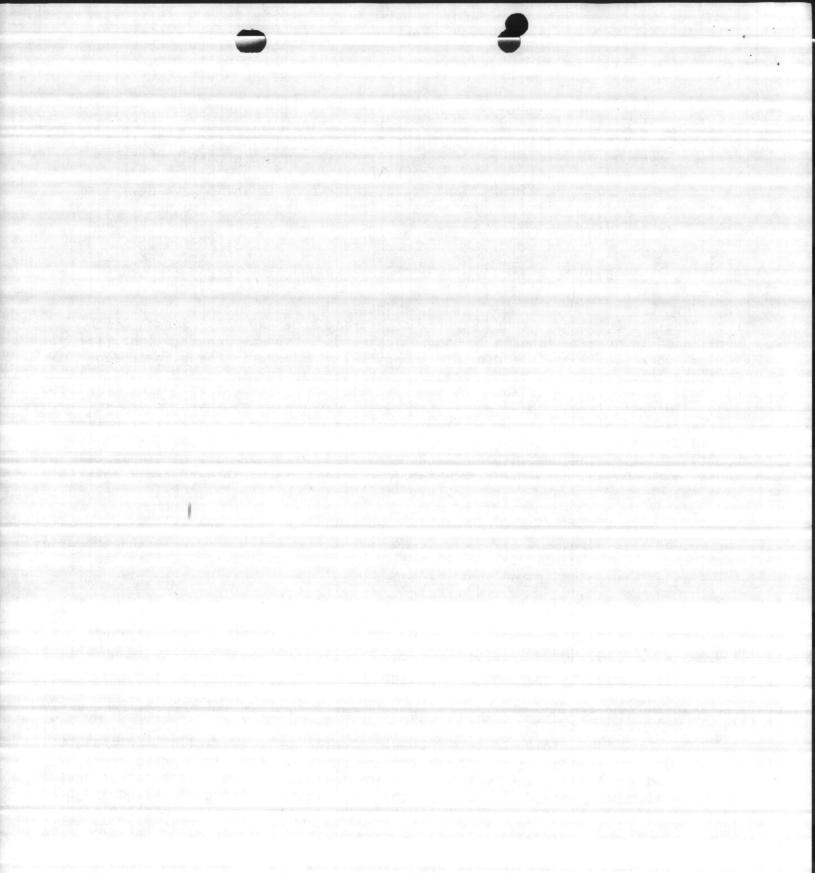
wort, black needle rush, saltmeadow hay, salt grass, marsh elder, sea oxeye and grounse

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, glass-

E. Marine fishes inhabitating 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.

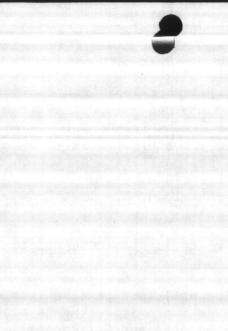
## III. ACTION/PROJECT DESCRIPTION

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:

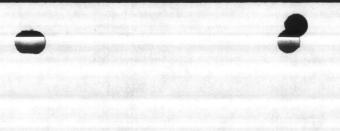


1. Range: N-1 Impact Area 2. Location: Brown's Island grid coordinate 9429 through 0033 and a rectangular oceanic sector approximately 6,000 meters wide, extending approximately 10,000 meters in a southeasterly direction off the coast of Camp Lejeune (see attached map), Appendix A. 3. Description: a. 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).

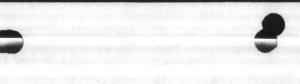
- d. Artillery All types of ammunition.
- 5. Range Limits: This range extends northeast from the Junction of north/south grid line 94 at Onslow Beach, along the beach line to Bear Creek Inlet; north-northwest along Bear Creek to a point 400 yards northwest of the Intracoastal Waterway; west-southwest 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
    - Description:
      - a. 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 Range Limits: Right flank coordinate 935287, azimuth 1050 b. Left flank coordinate 939290, azimuth 800 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 semiannually. 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 nonexploding projectiles. It is also used as a buffer zone for firing on Browns Island and infrequently receives artillary 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. FNCI OSURE



- of Hammocks Beach (Bear Island) and seaward toward the Bogue Inlet bouy 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° 33.5' N-77°; 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 concerming 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.





## National Oceanic and Atmospheric Administration NATIONAL MARINE FISHERIES SERVICE

Southeast Region

9450 Koger Boulevard St. Petersburg, FL 33702

November 8, 1982

Brigadier General D.J. Fulham United States Marine Corps Marine Corps Base Camp Lejeune, N.C. 28542

Dear General Fulham:

This responds to your November 4, 1982, letter (Ref. NREAD/JIW/th-11015) regarding consultation for use of the N-1 Impact Area and Browns Island Target and Bombing Area BT-3 at Camp Lejeune, North Carolina, as required by Section 7 of the Endangered Species Act of 1973.

We have reviewed the biological assessment (BA) and as you requested, we are providing the following comments for your consideration.

Our concerns relate to use of the offshore areas of the firing range since sea turtles, while in the water, and whales come under the purview of the National Marine Fisheries Service. Specifically, it appears there is a potential for ordnance striking or otherwise impacting endangered/threatened species moving through the offshore impact areas. Critically endangered species such as the Atlantic (Kemp's) ridley sea turtle, the hawksbill sea turtle, and the right whale may occur in the impact area and subsequently be hit. Populations of these animals, to remain viable, cannot afford the avoidable loss of individuals. Accordingly, the BA should be expanded to incorporate measures the Marine Corps considered to avoid impacting endangered/threatened species.

You may consider methods such as aerial overflights of target areas prior to practice to check, where possible, for sea turtles and whales; halting ordnance delivery when sea turtles or whales are spotted within a target area (safe distance to be determined based on size of ordnance); monitoring activities to insure that endangered/threatened species are not affected; seasonal restrictions on use of the practice range; or other measures you feel may be practical and appropriate. These measures could be used in connection with existing range regulations that prohibit firing at wildlife species at all times.

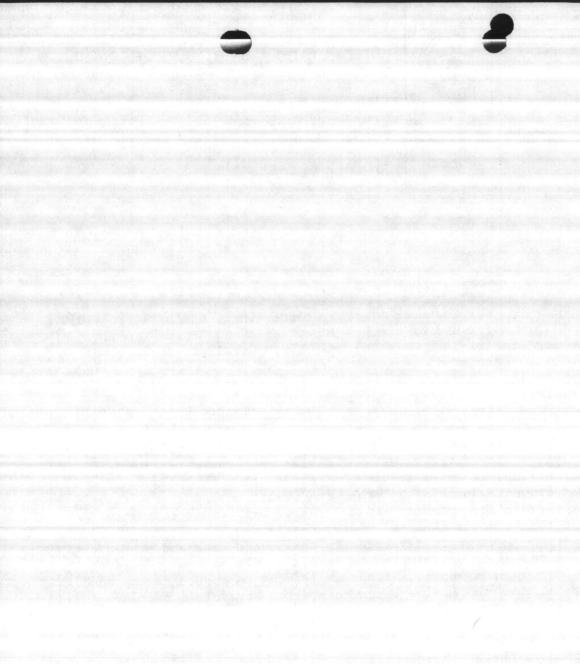
We would be pleased to discuss the subject proposal with your staff, clarify any information in this letter, or provide more detailed information. In this regard, please contact Andreas Mager, Jr. at FTS 826-3366 or 813-893-3366.

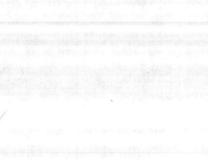
Sincerely yours,

Charles A. Oravetz

Chief, Marine Mammals and Endangered Species Branch

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LO NEC 4D

NREAD/JIW/j= 11015 1 2 JAN 1983

Mr. Charles A. Oravetz National Harine Fisheries Service 9450 Roger Boulevard St. Petersburg, Florida 33702

Dear Mr. Oravetz:

This is in response to your letter of 8 November 1982 relative to consultation, as required under Section 7 of the Endangered Species Act of 1973, concerning use of the N-1 Impact Area and Browns Island Target and Bombing Area BT-3 at Marine Corps base, Camp Lejeune, North Carolina.

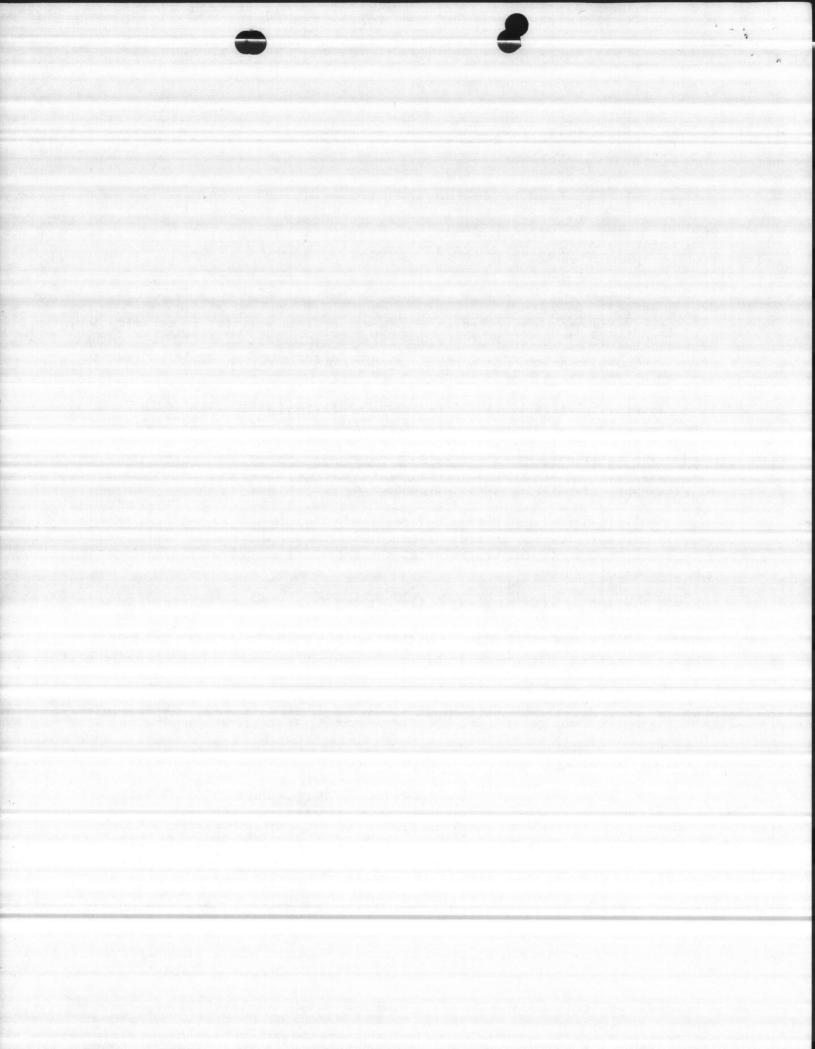
Your concerns relative to live-firing into offshere waters are noted and please be informed that mathods have already been effected to avoid loss of endangered/threatened sea turtles and whales. Base range regulations restrict firing at any endangered/threatened animals in the subject area. Observation towers are manned on Onslew Beach and along the Intracoastal Waterway when live-firing is being conducted.

Aerial overflights are conducted and required prior to all live-firing exercises. If whales or sea turtles are sighted from the Observation Towers or from aircraft, the firing ceases until the animal(s) move from the range area and are out of danger.

For further information concerning live-firing into offshore waters within the subject area, please contact Mr. Julian Wooten, Director, Natural Resources and Environmental Affairs Division, commercial (919) 451-5003 or ITS 676-5003.

Sincerely,

J. T. MARSHALL
Colonel, U. S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General





UNITED STATES DEP MENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Region
9450 Koger Boulevard
St. Petersburg, FL 33702

March 3, 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:

Please reference your January 12, 1983, letter (NREAD/JIW/jc-11015) and the November 4, 1982, letter from Brigadier General D.J. Fulham regarding the Marine Corps' consultation pursuant to Section 7 of the Endangered Species Act (ESA) for use of the N-1 Impact Area and Browns Island Target and Bombing Area BT-3 at Marine Corps Base, Camp Lejeune, North Carolina.

Based on the March 3, 1983, discussion with Mr. Julian Wooten, Director, Natural Resources and Environmental Affairs Division, and the additional information contained in your January 12, 1983, letter, we concur with the Marine Corps' determination that the subject activity would not adversely affect populations of endangered/threatened species under our purview.

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.

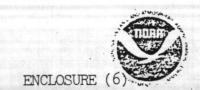
Sincerely yours,

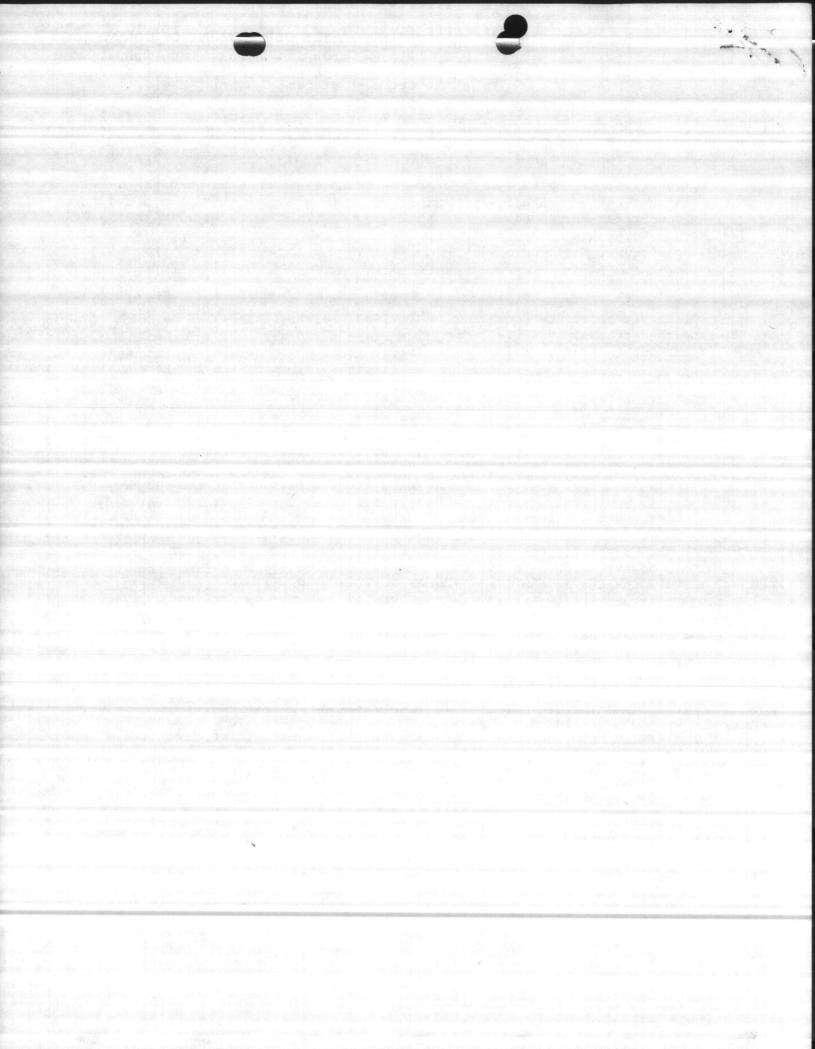
Charles A. Oravetz, Chief,

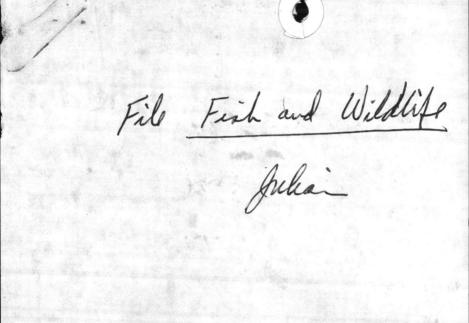
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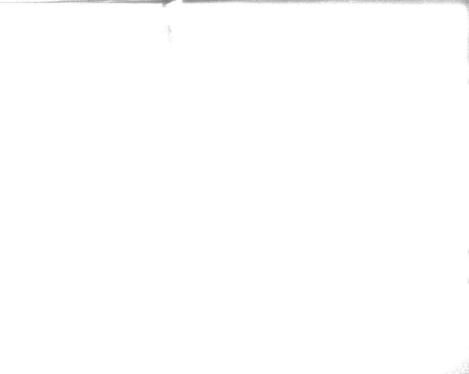
Protected Species Management Branch

cc: FWS, Asheville, N.C.









DEPARTMENT OF THE INTERIOR U.S. FISH AND WILDLIFE SERVICE

3-201

2. AUTHORITY-STATUTES

16 USC 1533(a)

**REGULATIONS** (Attached)

50 CFR 17.42

3. NUMBER

PRT 2-7844

4. RENEWABLE
XX YES
NO

XX YES

5. MAY COPY

6. EFFECTIVE

7. EXPIRES

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01/31/83

FEDERAL FISH AND WILDLIFE PERMIT

1. PERMITTEE

Natural Resources and Environmental Affairs Division United States Marine Corps Marine Corps Base Camp Lejeune, North Carolina 28542

8. NAME AND TITLE OF PRINCIPAL OFFICER (If #1 is a business)

9. TYPE OF PERMIT

Julian I. Wooten, Director

THREATENED SPECIES

10. LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED

Camp Lejeune, North Carolina

#### 11. CONDITIONS AND AUTHORIZATIONS:

- A. GENERAL CONDITIONS SET OUT IN SUBPART D OF 50 CFR 13, AND SPECIFIC CONDITIONS CONTAINED IN FEDERAL REGULATIONS CITED IN BLOCK #2 ABOVE, ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED, INFORMATION AND REPORTS.
- B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, STATE, LOCAL OR OTHER FEDERAL LAW.
- C. VALID FOR USE BY PERMITTEE NAMED ABOVE.
- D. Authorized to take green (Chelonia mydas) and loggerhead (Caretta caretta) sea turtles to tag and measure adults and to relocate nests for the purposes of scientific research and enhancement of survival PROVIDED THAT 1) only nests threatened by erosion, tides, extreme predation or military activities are moved; 2) nests be relocated to safe beach locations, Not to a laboratory; 3) relocated nests are monitored and hatching success recorded; and, 4) nests be moved only within 36 hours of egg laying.
- E. Nesting females should be double-tagged by placing one tag on each front flipper.
- F. The permittee must have a copy of this permit in his possession while conducting the authorized activities. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "Special Conditions for Endangered and Threatened Species Permits" (copy enclosed).
- G. The Atlanta, GA USFWS Endangered Species Office (404/881-4671) must be notified before commencing the permitted activity.

ADDITIONAL CONDITIONS AND AUTHORIZATIONS ON REVERSE ALSO APPLY

A report of activities conducted under authority of this permit must be submitted to the Federal Wildlife Permit Office, P.O. Box 3654, Arlington, VA 22203, by January 31, 1982, and January 31, 1983 or upon application for renewal.

Robert J. Boothy

Federal Wildlife Permit Office

JUN

5 1981

- H. Any live sea turtles held must be maintained in accordance with "Care and Maintenance Standards for Sea Turtles Held in Captivity" specified by the Federal Wildlife Permit Office.
- I. Records required by 50 CFR 13.46 must be maintained in accordance with the "Recording and Reporting Requirements for Sea Turtles" specified by the Federal Wildlife Permit Office.

JM 5 1981



## United States Department of the Interior

## FISH AND WILDLIFE SERVICE WASHINGTON, D.C. 20240

### Special Conditions for Endangered and Threatened Species Permits

## Permits authorizing take (e.g., capture, kill, harass, etc.):

- Any dead or injured specimens found may be salvaged or cared for. The U.S. Fish and Wildlife Service's Endangered Species Office nearest you (list attached) will provide disposition instructions.
- Unless otherwise authorized on the face of the permit, the wildlife must be immediately released at or near the capture site after permitted activity.
- 3. Bird Banding, marking, radio-tagging, etc., must be conducted in accordance with a valid Federal Bird Marking and Salvage permit.

### Permits authorizing import, export, or re-export:

- A copy of this permit must be attached to the Wildlife Declaration (USFWS Form 3-177) and submitted to the USFWS Office at a port designated in block 10.
- 2. Import of species listed in Appendix I, II, or III to the Convention on International Trade in Endangered Species of Wild Fauna and Flora must be accompanied by proper documentation from the country of export as required by 50 CFR 23.12, 23.13, or 23.14, as appropriate.
- 3. If the laws or regulations of the country of origin, the country of export, or a subdivision thereof, restrict the taking, possession, transportation, exportation, or sale of wildlife, the owner, importer, or consignee may be required to produce foreign documentation showing that such laws or regulations have not been violated.

## For all endangered and threatened species permits:

- The container in which the authorized wildlife is shipped must be plainly marked giving the name and address of the shipper and consignee and an accurate description of the contents including the common name and number of each within. Living specimens must be prepared and shipped so as to minimize the risk of injury, damage to health or cruel treatment.
- 2. THE EXPRIATION DATE IN BLOCK 7 REFERS ONLY TO THE PRECEDING AUTHORIZATION AND CONDITIONS. THE FOLLOWING CONDITIONS REMAIN EFFECTIVE UNTIL AMENDED, MODIFIED REVOKED OR UPON THE DEATH OR AUTHORIZED TRANSFER OF WILDLIFE.
- 3. The loss, death, or destruction of the authorized wildlife shall be reported to the nearest USFWS Endangered Species Office (list attached) within 24 hours and in writing to the Director, USFWS, Federal Wildlife Permit Office, Washington, D.C. 20240, within 10 days.

4. Any dead authorized wildlife shall be preserved and held for scientific purposes. The nearest USFWS Endangered Species Office (list attached) will provide disposition instructions.

5. The following conditions of 50 CFR 13, General Permit Procedures, apply to this permit, and must be observed:

## § 13.41 Recall and amendment of permit during its term.

Except for marine mammal permits (See Part 18), all permits are issued subject to the condition that the Service reserves the right to recall and amend the provisions of a permit for just cause at any time during its term. Such amendments take effect on the date of notification, unless otherwise specified.

#### § 13.42 Permits are specific.

The authorizations on the face of a permit which set forth specific times, dates, places, methods of taking, numbers and kinds of wildlife or plants, location of activity, authorize certain circumscribed transactions, or otherwise permit a specifically limited matter, are to be strictly construed and shall not be interpreted to permit similar or related matters outside the scope of strict construction.

[39 FR 1161, Jan. 4, 1974, as amended at 42 FR 32377, June 24, 1977]

#### § 13.43 Alteration of permits.

Permits shall not be altered, erased, or mutilated, and any permit which has been altered, erased, or mutilated shall immediately become invalid. Unless specifically permitted on the face thereof, no permit shall be copied, nor shall any copy of a permit issued pursuant to this Subchapter B be displayed, offered for inspection, or otherwise used for any official purpose for which the permit was issued.

#### § 13.44 Display of permit.

Any permit issued under this part shall be displayed for inspection upon request to the Director or his agent, or to any other person relying upon its existence.

#### § 13.45 Filing of reports.

Permittees may be required to file reports of the activities conducted under the permit. Any such reports shall be filed not later than March 31 for the preceding calendar year ending December 31, or any portion thereof, during which a permit was in force, unless the regulations of this subchapter B or the provisions of the permit set forth other reporting requirements.

#### § 13.46 Maintenance of records.

From the date of issuance of the permit, the permittee shall maintain complete and accurate records of any taking, possession, transportation, sale, purchase, barter, exportation, or importation of plants obtained from the wild (excluding seeds) or wildlife pursuant to such permit. Such records shall be kept current and shall include names and addresses of persons with whom any plant obtained from the wild (excluding seeds) or wildlife has been purchased, sold, bartered, or otherwise transferred, and the date of such transaction, and such other information as may be required or appropriate. Such records, unless otherwise specified, shall be entered in books, legibly written in the English language. Such records shall be retained for 5 years from the date of issuance of the permit.

#### § 13.47 Inspection requirement.

Any person holding a permit under this subchapter B shall allow the Director's agent to enter his premises at any reasonable hour to inspect any wildlife or plant held or to inspect, audit, or copy any permits, books, or records required to be kept by regulations of this subchapter B. 6. The following conditions of 50 CFR 13, General Permit Procedures, apply to this permit and are provided for your information:

## § 13.23 Amendment of applications or permits.

Where circumstances have changed so that an applicant or permittee desires to have any term or condition of his application or permit modified, he must submit in writing full justification and supporting information in conformance with the provisions of this part and the part under which the permit has been issued or requested. Such applications for modification are subject to the same issuance criteria as are original applications, as provided in § 13.21.

#### § 13.24 Renewal of permit.

Where the permit is renewable and a permittee intends to continue the activity described in the permit during any portion of the year ensuing its expiration, he shall, unless otherwise notified in writing by the Director, file a request for permit renewal, together with a certified statement that the information in his original application is still currently correct, or a statement of all changes in the original application, accompanied by any required fee at least 30 days prior to the expiration of his permit. Any person holding a valid renewable permit, who has complied with the foregoing provision of this section, may continue such activities as were authorized by his expired permit until his renewal application is acted upon.

#### § 13.25 Permits not transferable; agents.

(a) Permits issued under this part are not transferable or assignable. Some permits authorize certain activities in connection with a business or commercial enterprise and in the event of any lease, sale, or transfer of such business entity, the successor must obtain a permit prior to continuing the permitted activity. However, certain limited rights of succession are provided in § 13.26.

# § 13.26 Right of succession by certain persons.

(a) Certain persons, other than the permittee, are granted the right to carry on a permitted activity for the remainder of the term of a current permit provided they comply with the provisions of paragraph (b) of this section. Such persons are the following:

 The surviving spouse, child, executor, administrator, or other legal representative of a deceased permit-

tee; and

(2) A receiver or trustee in bankruptcy or a court designated assignee for

the benefit of creditors.

(b) In order to secure the right provided in this section, the person or persons desiring to continue the activity shall furnish the permit to the issuing officer for endorsement within 90 days from the date the successor begins to carry on the activity.

#### § 13.27 Change of mailing address.

During the term of his permit, a permittee may change his mailing address without procuring a new permit. However, in every case notification of the new mailing address must be forwarded to the issuing official within 30 days after such change. This section does not authorize the change of location of the permitted activity for which an amendment must be obtained in accordance with § 13.23.

(b) Except as otherwise stated on the face of a permit, any person who is under the direct control of the permittee, or who is employed by or under contract to the permittee for the purposes authorized by the permit, may carry out the activity authorized by the permit.

#### § 13.28 Change in name.

A permittee continuing to conduct a permitted activity is not required to obtain a new permit by reason of a mere change in trade name under which a business is conducted or a change of name by reason of marriage or legal decree: Provided, That such permittee must furnish his permit to the issuing official for endorsement within 30 days from the date the permittee begins conducting the permitted activity under the new name.

## § 13.29 Official endorsement of changes required.

Any change in a permit must be made by endorsement of the Director or issuing officer. Any modification or change in an issued permit, other than those specifically provided for in this subpart, may be granted or denied in the discretion of the Director.

#### § 13.30 Certain continuancy of activity.

A permittee who furnishes his permit to the issuing official for endorsement or correction in compliance with the provisions of this subpart may continue his operations pending its return.

#### § 13.31 Discontinuance of activity.

When any permittee discontinues his activity, he snall, within 30 days thereof, mail his permit and a request for cancellation to the issuing officer, and said permit shall be deemed void upon receipt. No refund of any part of an amount paid as a permit fee shall be made where the operations of the permittee are, for any reason, discontinued during the tenure of an issued permit.

7. The following provisions for penalties under 50 CFR 13, General Permit Procedures, apply to this permit and are provided for your information:

# § 13.51 Penalties for violation of a permit, notice; demonstration of compliance.

- (a) Any violation of the applicable provisions of this Subchapter, or of the statute under which the permit was issued, or a condition of the permit, may subject the permittee to the following penalties:
- (1) The penalty provided in the statute under which the permit was issued:
- (2) Temporary suspension of the permit for a specified period; and

- (3) Revocation of the permit. When revoked, permits must be surrendered to the Director on demand.
- (b) Except in cases of willfullness or those in which the public health safety or interest requires, and prior to any suspension or revocation of a permit, the permittee shall be given:

 Notice by the Service in writing of the facts or conduct which may warrant the suspension or revocation;
 and

(2) Opportunity to demonstrate or achieve compliance with all permit requirements.



#### Regional Offices

Region 1 - Endangered Species Specialist - Suite 1692, Lloyd 500 Bldg., 500 N.E. Multnomah St., Portland, Oregon 97232 (503-231-6118)

Region 2 - Endangered Species Specialist - P.O. Box 1306, Albuquerque, New Mexico 87103 (505-766-2321)

Region 3 - Endangered Species Specialist - Federal Building, Fort Snelling, Twin Cities, Minnesota 55111 (612-725-3500)

Region 4 - Endangered Species Specialist - P.O. Box 95067, Atlanta Georgia 30347 (404-881-4671)

Region 5 - Endangered Species Specialist -Suite 700, One Gateway Center, Newton Corner, Massachusetts 02158 (617-965-5100)

Region 6 - Endangered Species Specialist - P.O. Box 25486, Denver Federal Center Denver, Colorado 80225 (303-234-2209)

Alaska Area - Endangered Species Specialist 1101 E. Tudor Road, Anchorage, Alaska 99057 (907-265-4864)



# United States Department of the Interior

FISH AND WILDLIFE SERVICE WASHINGTON, D.C. 20240

# Care and Maintenance Standards for Sea Turtles Held in Captivity

These standards provide minimum requirements for humane care and maintenance of all endangered and threatened species of sea turtles held in captivity in the United States. These standards must be met as a condition of any endangered or threatened species permit authorizing any activity otherwise prohibited by the Endangered Species Act or the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The permittee must notify the Federal Wildlife Permit Office (WPO) within 60 days of transmittal of these standards whether or not they are being met. Such notification shall include a description of all shortcomings and of emergency provisions, back-up systems and filtration if not previously submitted. Thereafter, the permittee must immediately notify WPO of any inability to maintain these standards. Failure to notify WPO or repeated inability to maintain these standards shall be considered a violation of the permit.

## Facility Construction

The tank in which sea turtles are held must be deep enough to hold sufficient water to allow complete submersion of the specimens, large enough to allow unimpeded turning, and of a configuration that will not lead to injury. The inside surfaces must be nonabrasive, free of burrs or projections and free of toxic substances such as lead or copper paint.

Sunlight or an adequate lighting substitute must be functional.

## Water Quantity, Quality and General Condition

There must be a sufficient volume of water to promote growth and allow complete submersion of specimens. Sea turtles may be kept out of water for a maximum of 4 hours per week (as when draining water for cleaning of the tank, replacement or in an emergency), but they must be kept moist and protected from physical damage during such periods. The facility must have the ability to provide adequate water quantity under normal and emergency conditions.

Salinity must be maintained at not less than 12 ppt and not more than 38 ppt, except in emergencies when less saline water may be used for not more than 72 hours per week.

Water temperature must be maintained at not less than 55½F or more than 85½F, except in emergencies when low temperatures to 50½F are allowed for up to 24 hours per week.

pH must be maintained between 7.5 and 9.0.

Coliform bacteria MPN must not exceed 1,000/100ml. of water.

Water must be kept free from contaminants such as heavy metals and other toxic chemicals that may prove deleterious to the health of the specimens.

The facility must have the ability to monitor the above parameters, correct any situation where the described limits are exceeded, and to properly care for specimens while corrective measures are being taken.

The surface of the water must be unencumbered for breathing and floating, and free of potentially damaging objects or substances.

### Feeding

All sea turtles must be fed quantities and qualities of food that are suitable and not deleterious to their sustenance and growth.

### Prophylaxis

Measures must be designed and instituted to preserve health and prevent the spread of disease or occurrence of injury.

#### Treatment

Measures must be designed and be available to treat any injury, disease or other deleterious condition that might occur.

## Biological Experiments

No experiment shall be conducted that requires undue injury, death or suffering to the specimen.

These standards provide minimum requirements for care and maintenance of sea turtles. They will be periodically revised as more information is gathered about the needs of each species in captivity. Comments regarding these standards will be welcomed and should be directed to the Director, U.S. Fish and Wildlife Service, Federal Wildlife Permit Office, Washington, D.C. 20240.



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE WASHINGTON, D.C. 20240

### Recording and Reporting Requirements for Sea Turtles

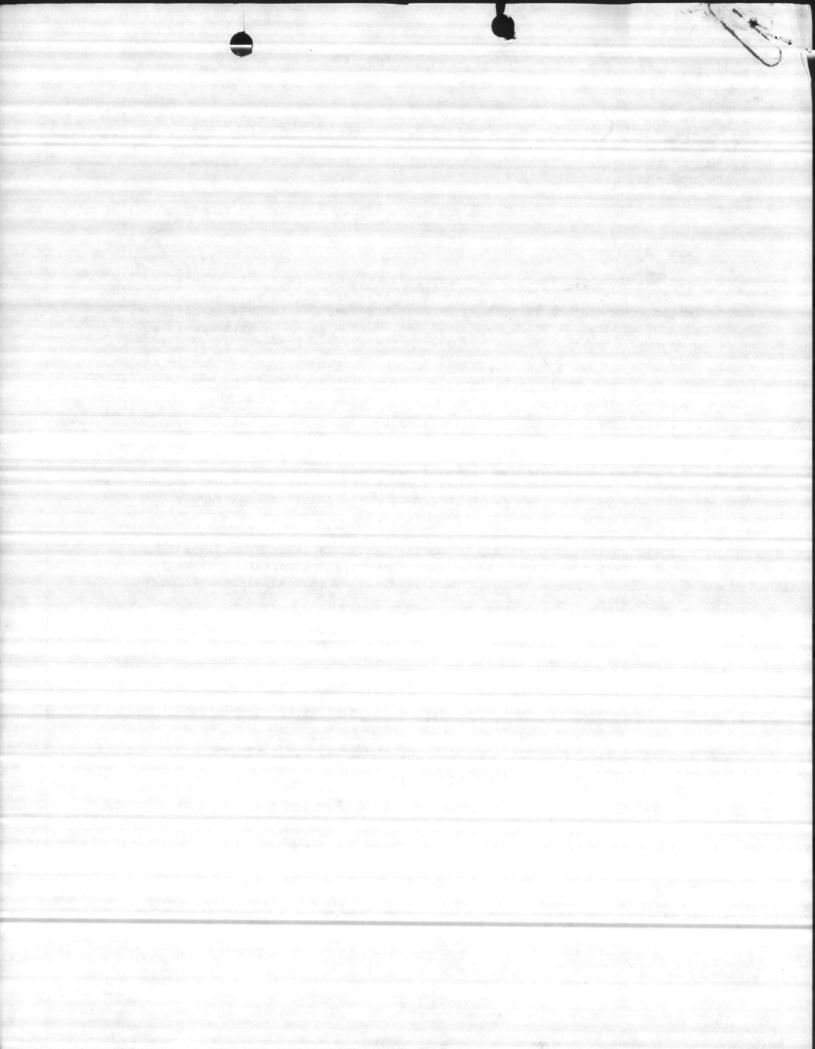
#### Records

From the date of issuance of the permit, the permittee must maintain complete and accurate records for each live sea turtle with a carapace length greater than 12 inches, whether the specimen is held in captivity or examined in the wild. Required information shall be gathered in such a manner to prevent injury, damage to health, cruel treatment or undue harassment. Records shall be entered in book, legibly written in English and retained for five years. The record for each sea turtle shall include:

- 1. common and scientific name of species
- individual identification if possible (as by numbered tag or distinguishing marks or scars)
- 3. date, location and method of acquisition (name and address of person if not taken from the wild)
- 4. initial measurments of weight, carapace length (straight line measurements as by calipers) and width at widest point that can be taken without unduly harassing the animals, especially larger ones
- 5. for captive specimens, annual measurements as described above
- 6. sex, if determinable
- brief narrative description of significant conditions or activities, such as damage, disease or death, copulation or laying
- 8. date and location of disposition of live specimens or carcasses, as by release or preservation
- for eggs, the date, location and number per nest taken or hatched
- 10. name of researcher and permit number authorizing activity.

#### Reports

By the date specified in block 12 of the permit, the permittee shall report the information required under the Records section and a summary of the results of any research conducted. Reprints of printed articles shall be submitted when available.



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

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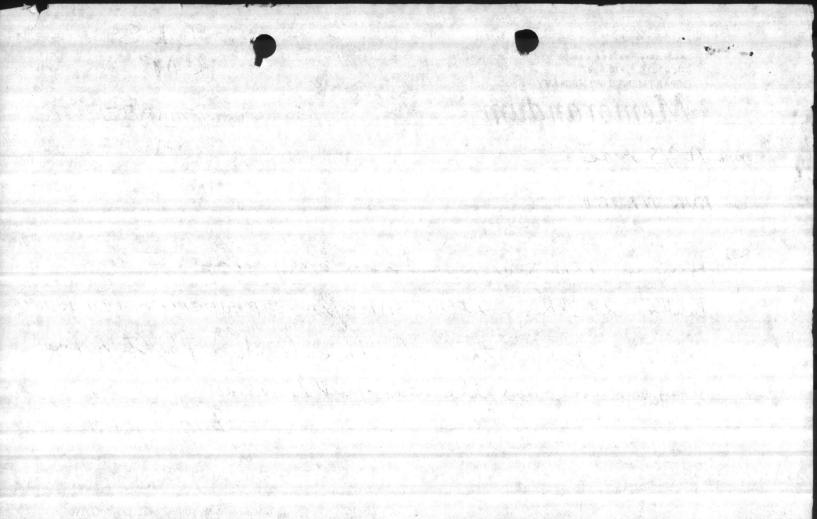
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# UNITED STATES MARINE CORPS MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542

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TRNG/AWR/kak 1500 18 Mar 1983

FIRST ENDORSEMENT on TFACO 1tr 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 TENG/ARP/kgk 1500 13 Ner 1 ET

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A. W. PUTTE, Jr.

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 bbserve 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 wahles from possiber 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 specificsr relative to tower observers shall be promulgated as soonass practical.

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

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

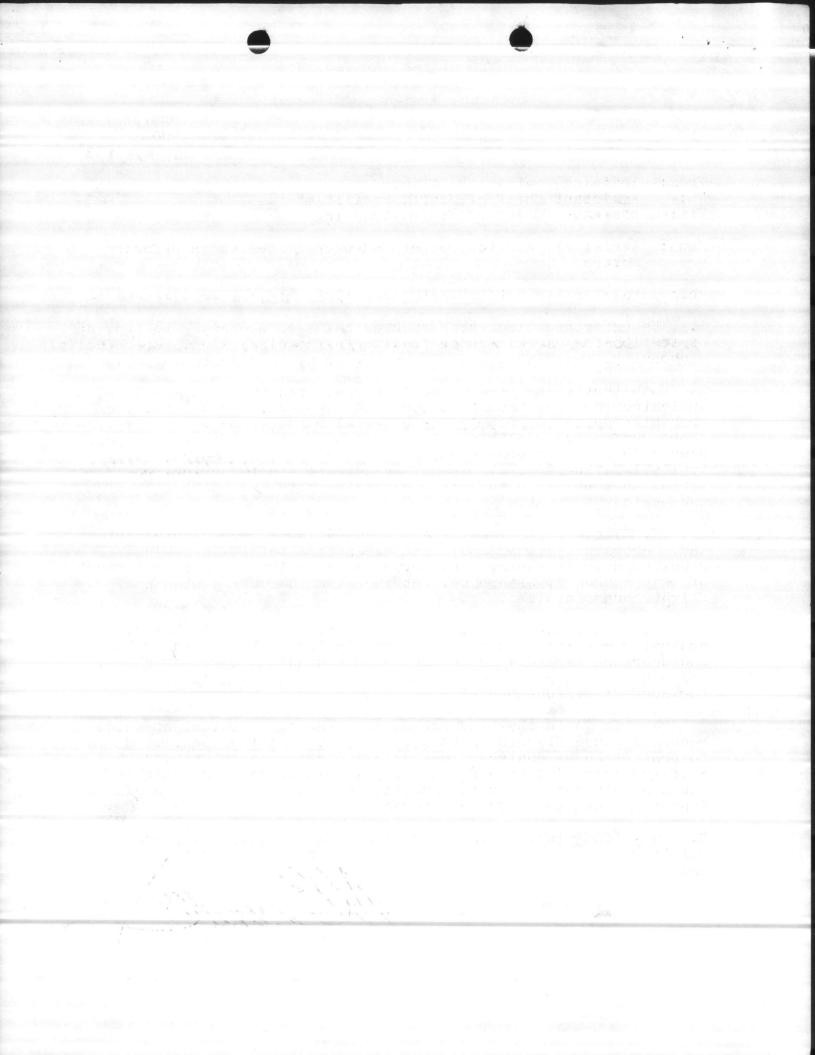
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3. Additional instructions for these flights and specifics relative to tower observers shall be promulgated as soon as practical.

A. R. BRUNELLI, Jr.



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 Assistant Chief of Staff, Training To: Subj: Protection of Endangered Species in Offshore Waters (a) Section 7, Endangered Species Act Ref: (1) CG MCB ltr MAIN/CDP/th 11015 of 17 Nov 1981 Encl: (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

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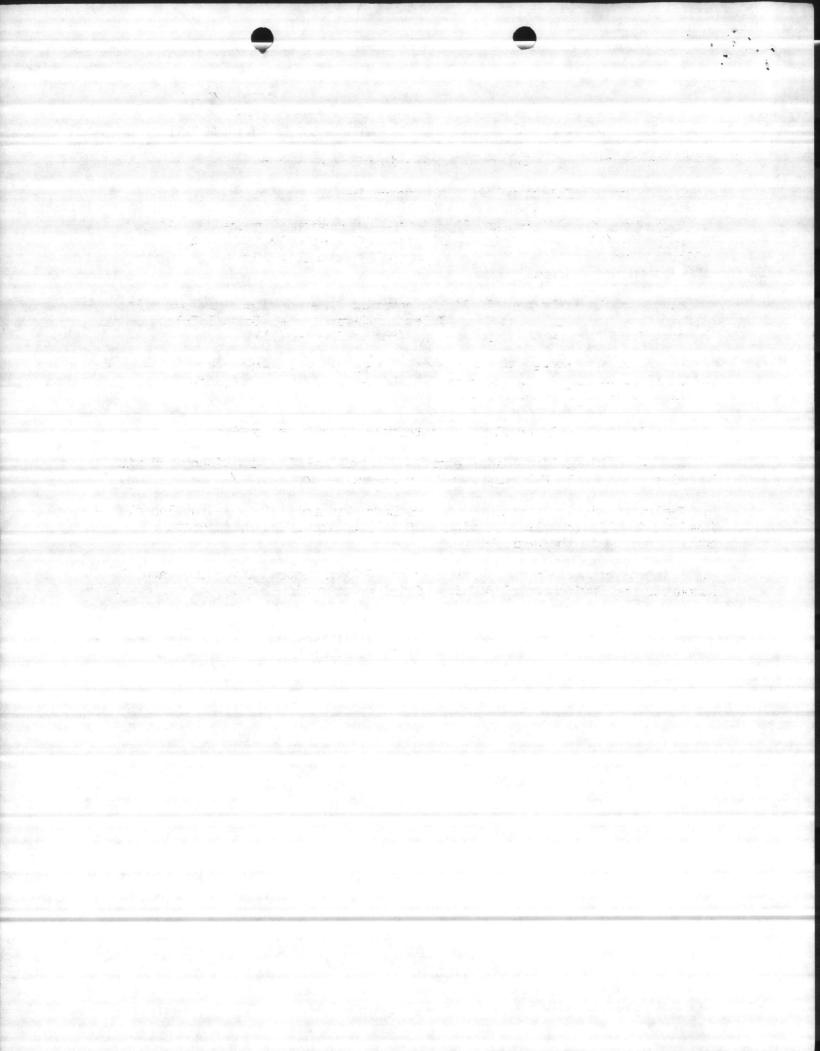
NREAD/DDS/th 11015 1 6 MAR 1983

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. MARSHAL



MAIN/CDP/th 11015 17 November 1981

Mr. Harold Allen
Acting Director Southeast Region
National Marine Fisheries Services
National Oceanic Atomospheric 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).

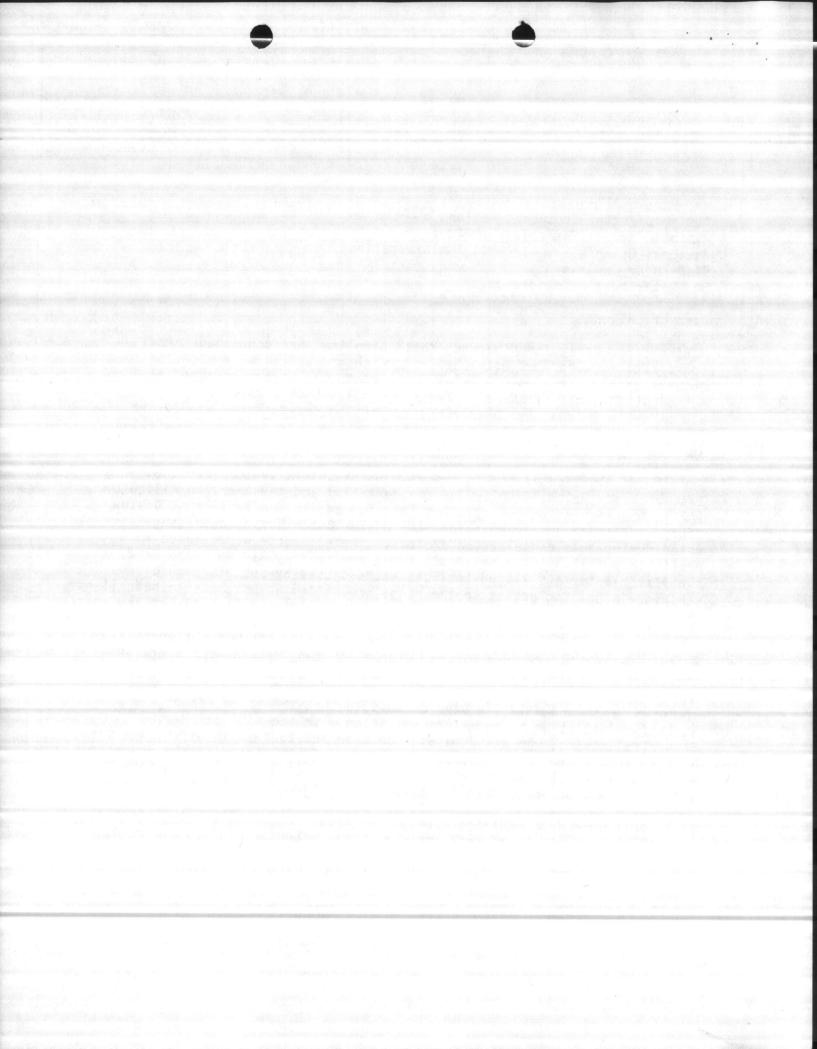
Formal consultation is now in progress which initially involved the Eastern Brown Pelican (Pelecanus occidentalis) and the American Alligator (Alligator mississippiensis). Possible impacts to sea turtles at Onslow Beach and in offshore waters from the Onslow Beach North Tower Range were noted during 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



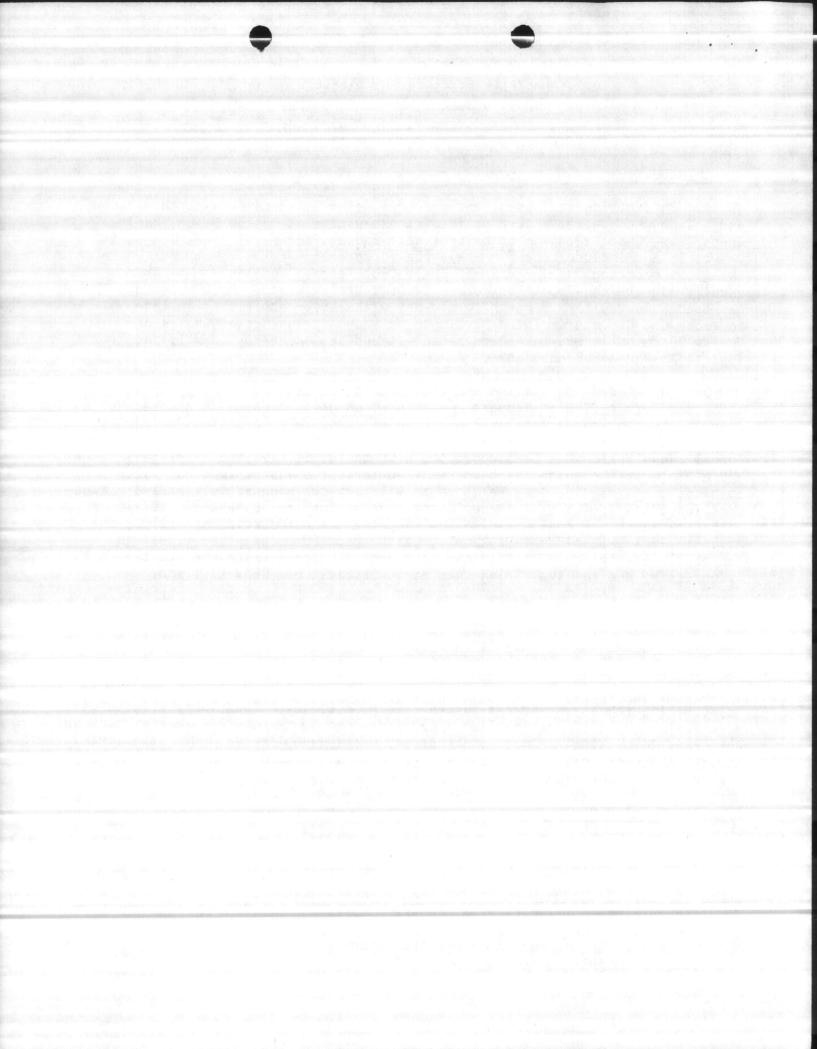
## BIOLOGICAL ASSESSMENT OF MARINE HABITAT Onslow Beach, Marine Corps Base Camp Lejeune, North Carolina

## 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 physolus), Humpback Whale (Megatera nouaeanglinae) and Right Whale (Eubaleana glaciolis). 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 (Demochelys coriacea) and Hawksbill (Erectmochelys 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 noticable 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

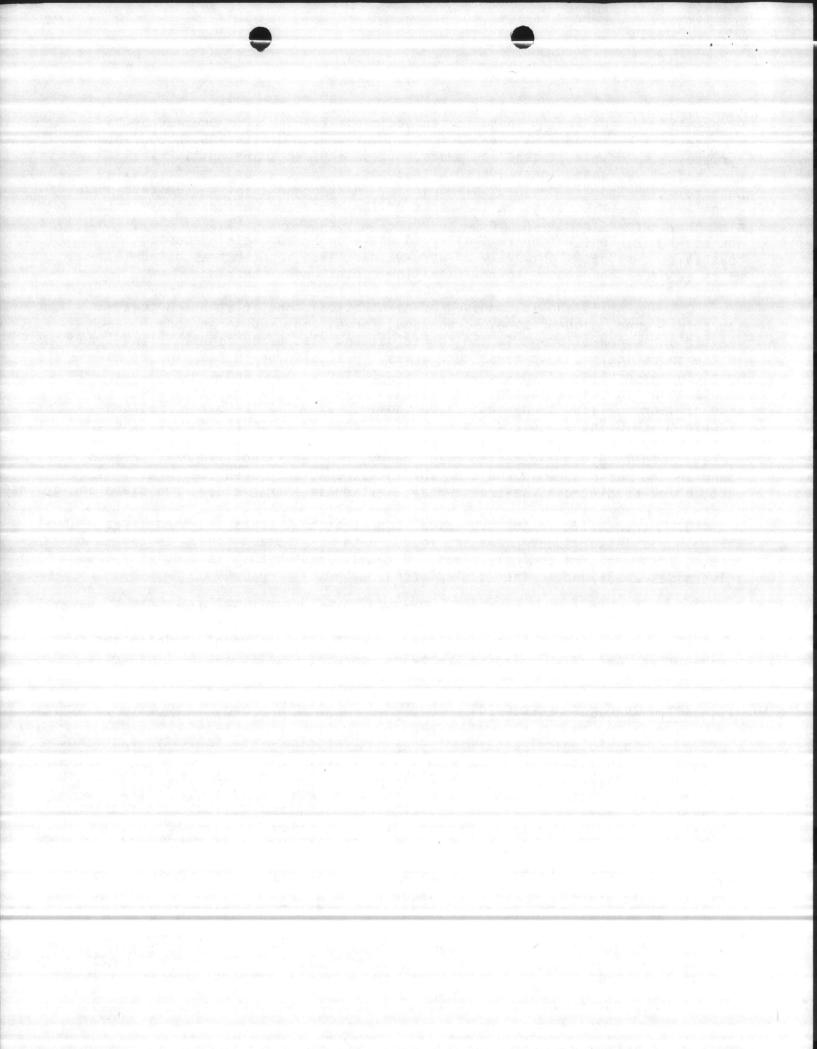
A. The Browns Island coastline is a relatively uniform sand ridge about 200 to 500 feet wide and typically about 5 to 15 feet in elevation. Shifting sand dunes on the ridge reach elevations of 25 to 40 feet. The sand ridge protects the mainland from wave action and it impedes tidal action as well as 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.



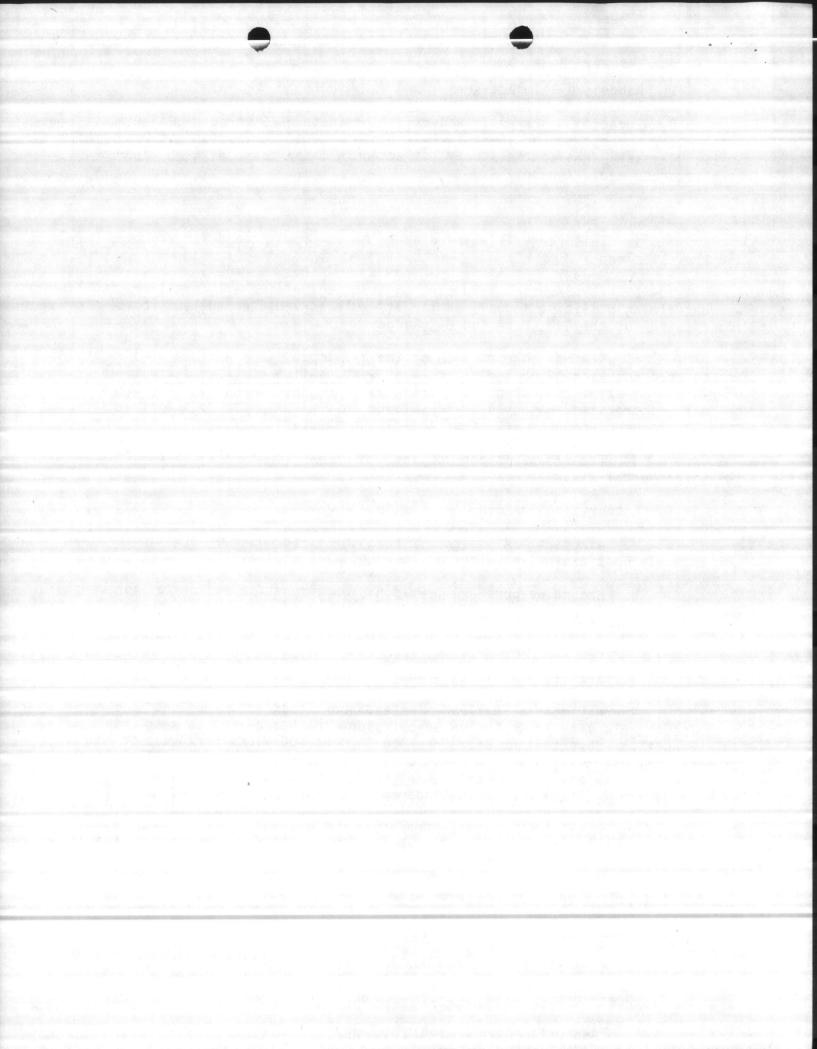
- B. This area of the coastal plain is underlain by hundreds of free or unconsolidated and weakly consolidated sediments ranging from cretaceous to miocene in age. Generally these formations are covered with a 5 to 30 feet surface layer of pleistocene sediments. These sediments are mostly clean sand 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. Browns Island is composed of anintratidal 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 grounse
- 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 inhabitating 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

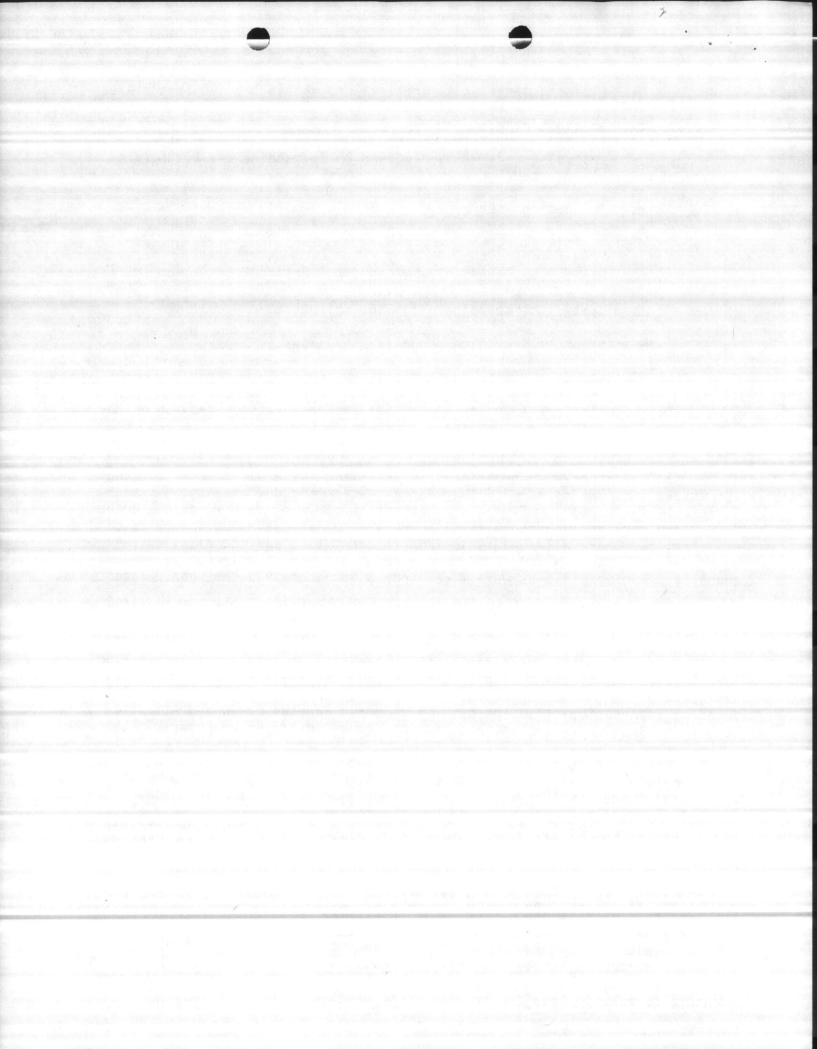
A. This biological assessment does not describe a new facility or project. It provides information on threatened and endangered species located in an existing bombing and artillery range located at Browns Island. Both of these ranges have been in existence since World War II. The range located at Browns 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:



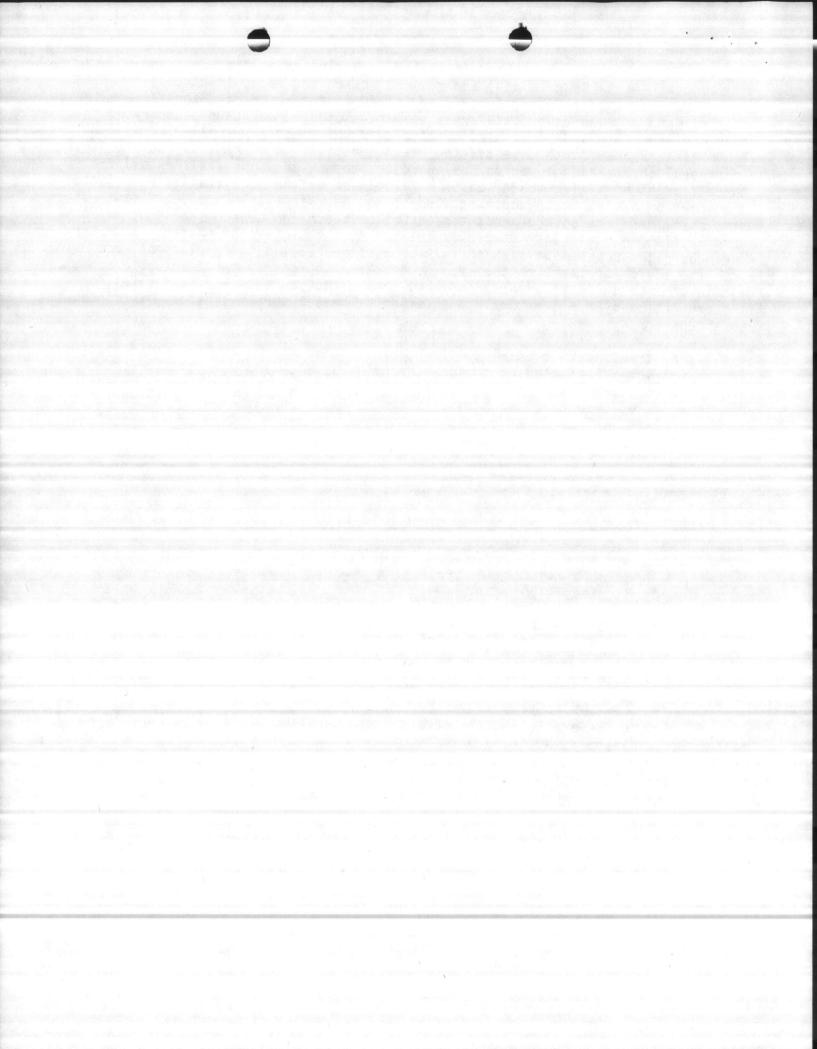
1. Range: N-1 Impact Area 2. Location: Brown's Island grid coordinate 9429 through 0033 and a rectangular oceanic sector approximately 6,000 meters wide, extending approximately 10,000 meters in a southeasterly direction off the coast of Camp Lejeune (see attached map), Appendix A. 3. Description: a. 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. 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 Description: a. Assault Amphibian Vehicle Range



b. Floating target platforms seaward within the N-1 Impact Area Authorized Firing: 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 1050 b. Left flank coordinate 939290, azimuth 800 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. 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 semiannually. 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 nonexploding projectiles. It is also used as a buffer zone for firing on Browns Island and infrequently receives artillary 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. FNCI OSIIRE



- D. The sea turtle sanctuary is listed as beginning at the northernmost end of Hammocks Beach (Bear Island) and seaward toward the Bogue Inlet bouy 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° 33.5' N-77°; 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 DE ARTMENT 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:

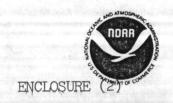
This responds to your November 17, 1981, letter requesting consultation for Marine Corps activities at the Marine Corps Base, Camp Lejeune, North Carolina, as required by Section 7 of the Endangered Species Act of 1973.

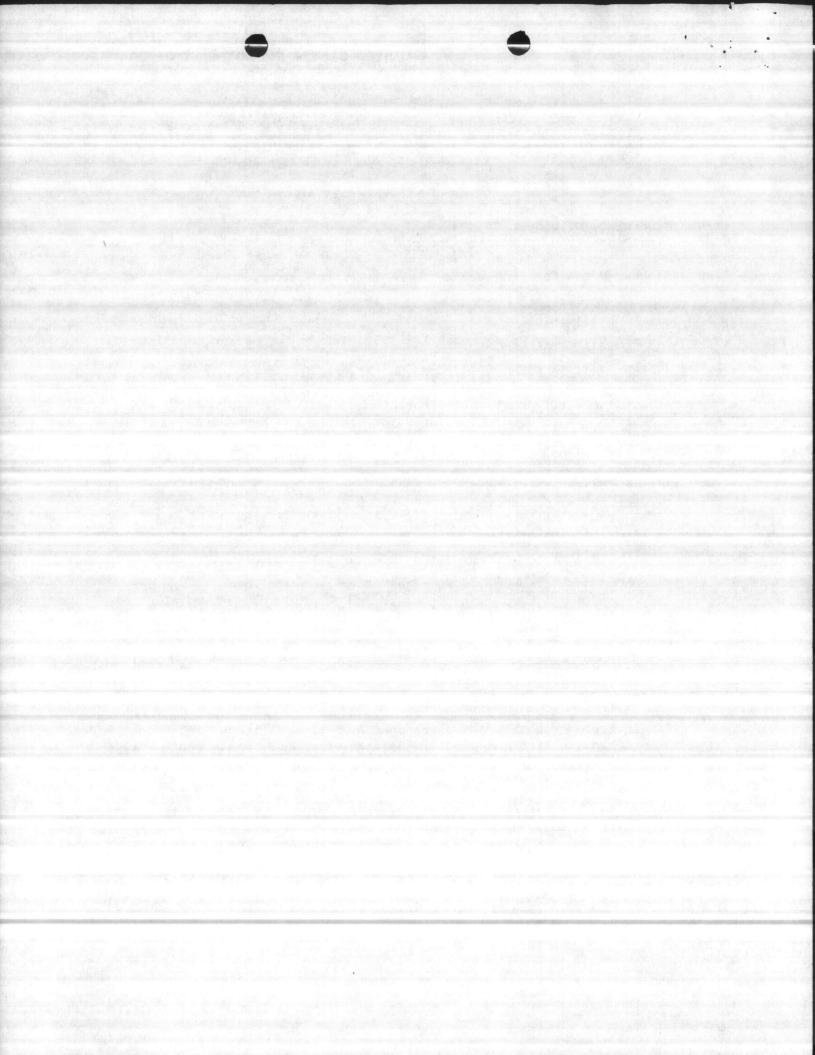
The attached list provides the threatened and endangered species under National Marine Fisheries Service jurisdiction that may be present in the project area. Upon receipt of this list, the USMC must insure that its actions are not likely to jeopardize the continued existence of the listed species.

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;





- (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.

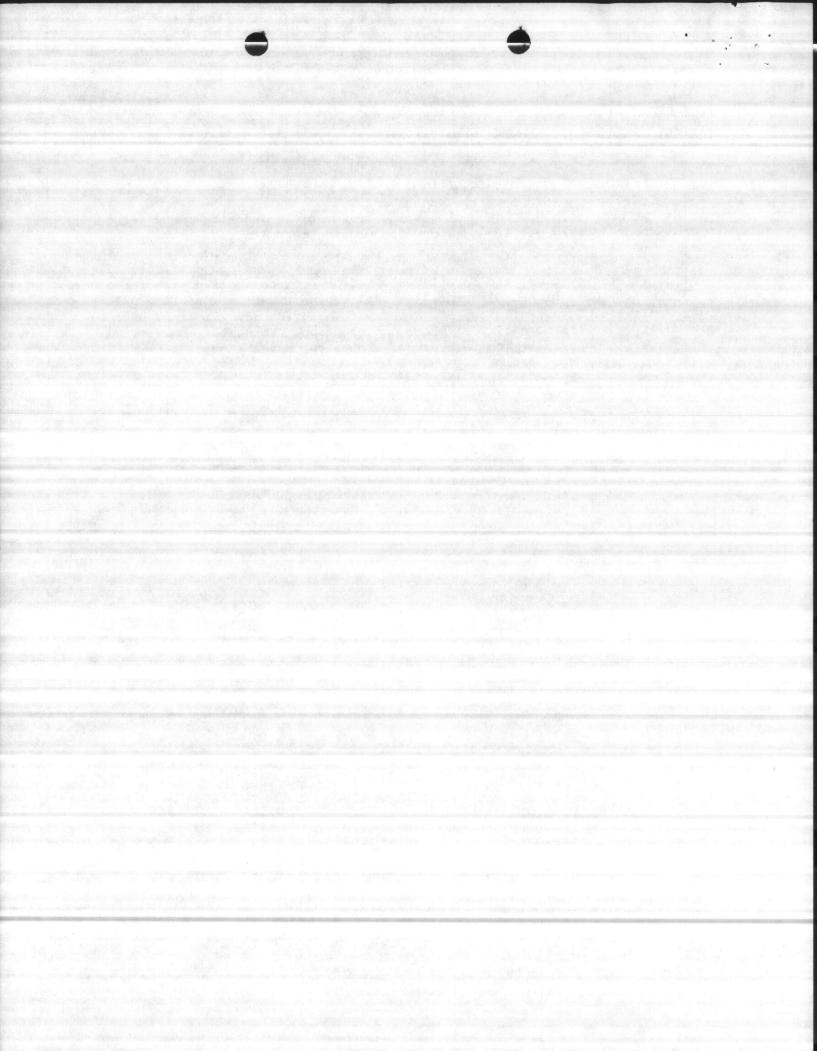
Sincerely yours,

Charles a. Oranet

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

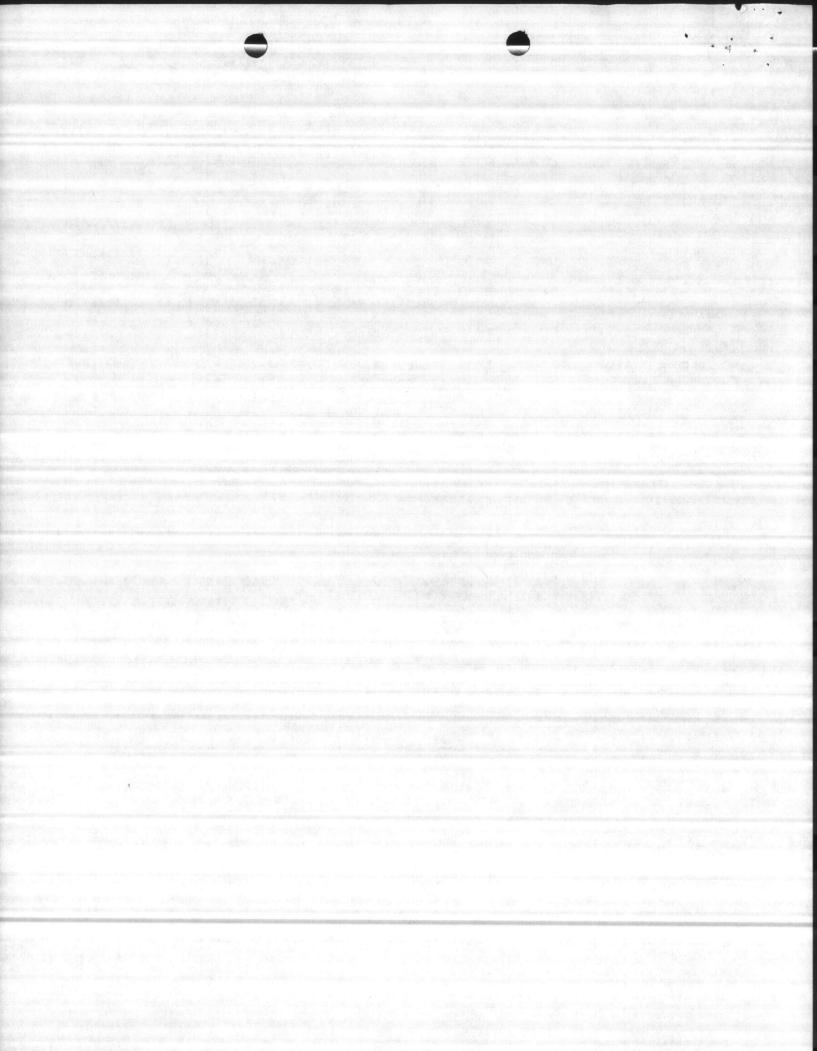
LISTED SPECIES	SCIENTIFIC NAME	STATUS	DATE LISTED
Fin Whale	Balaenoptera physalus	E	12/2/70
Humpback Whale	Megaptera novaeanglinae	E	12/2/70
Right Whale	Eubaleana qlacialis	E	12/2/70
Sei Whale	Balaenoptera borealis	E	12/2/70
Green Sea Turtle	Chelonia mydas	Th	7/28/78
Hawksbill Sea Turtle	Eretmochelys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



NREAD/JIW/th 11015 1 4 NOV 1982

Mr. D. R. Ekberg, Chief
Environmental and Technical Services Branch
Hational Marine Fisheries Service, Southeast Region
9450 Koger Boulevard
St. Petersburg, Florida 33702

Dear Mr. Ekberg:

This is in response to your letter of 23 November 1981 outlining the consultation process required by the Endangered Species Act for training activities conducted at Marine Corps Base, Camp Lejeune, North Carolina.

The training that occurs and constitutes a major federal action primarily involves utilization of coastal-waters as a buffer zone for explosive projectiles directed toward beach land and as an impact area for non-explosive projectiles directed toward waterborne targets. Secondarily, the waters receive non-explosive debris resulting from detonation of airborne anti-aircraft missiles. The current training does not represent a new action as the range has been in continuous use since the 1940's and the offshore portion served as an impact area for explosive artillery and aircraft ordnance for more than twenty years. That activity has left a large, varied quantity of debris and duds in the offshore waters.

A biological assessment of the possible effects on threatened and endangered species was conducted in accordance with your guidance. Because of safety considerations in the area, physical inspection and survey work was restricted. However, the observations and discussions with outside consultants are sufficient to conclude that continuation of military training is not likely to affect any endangered or threatened species.

The biological assessment is attached for your review. Any questions or comments would be welcomed. As evidenced by close and continuing management activities in conjunction with the Fish and Wildlife Service, the Base is desirous of meeting requirements for species undersyour jurisdiction.

Sincerely,

D. J. FULHAM
Brigadier General, U. S. Marine Corps
Commanding

Encl

Blind Copy to: AC/S, Fac

