

United States Department of the Interior

75 SPRING STREET, S.W. ATLANTA, GEORGIA 30303

MAR 1 2 1989

Brigadier General D. B. Barker U.S. Marine Corps Marine Corps Base Camp Lejeune, North Carolina 28542 Re: 4-2-80-F-80

Dear General Barker:

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This letter presents the Biological Opinion of the Fish and Wildlife-Service relative to the effects of Camp Lejeune's proposed southern pine bestle control project on the endangered red-cockaded woodpecker (Picoides borealis), as requested by letter of January 29, 1930. Field inspections and meetings with Camp Lejeune personnel and entomologists of the U.S. Forest Service (State and Private Forestry, Forest Insect and Disease Managament) and North Carolina State University were conducted on January 28-30, 1930, following notification of the problem by telephone of January 14, 1930.

It is the Biological Opinion of the Fish and Wildlife Service that control efforts for the southern pine beetle, as discussed and agreed upon January 28-30, 1980, and outlined herein, are not likely to jeopardize the continued existence of the red-cockaded woodpecker.

Assessment of the problem began with a meeting wherein the following was presented:

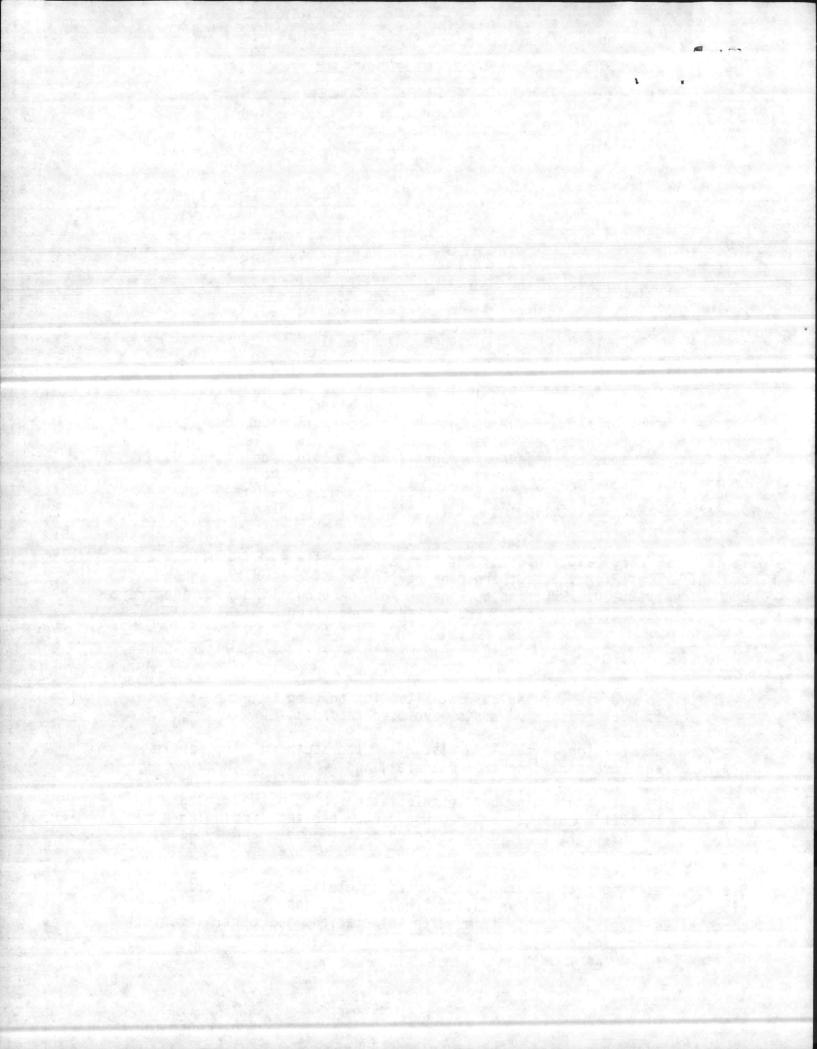
An overview of the current situation on Camp Lejeune - a total of 155 infestation spots have been recorded,

 Information on the life history of the southern pine beetle and recommended control measures, and

Details concerning beetle infestations within the marked boundaries of red-cockaded woodpecker habitat, including a map of the habitat and a description of the number and types of trees involved.

Seetle infestations are currently recorded in eleven red-cockaded woodpecker sites, three of which involve cavity trees. Field inspections of the three sites involving cavity trees with infestations and other infestation sites were made following the meeting.

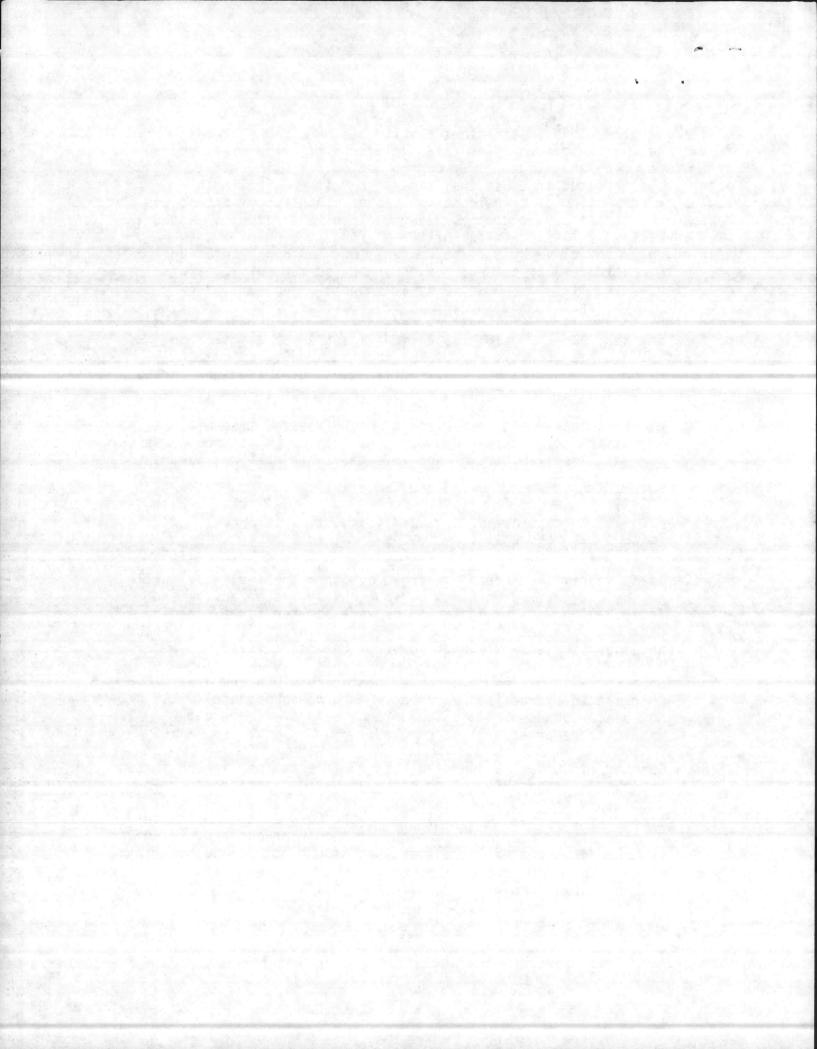
ENCLOSURE (3)



It was determined that infestations are limited to stressed trees, many of which have been injured. The potential for a major outbreak this summer is evident and, thus, early control efforts are important. Mortality of infested trees is inevitable from either girdling by beetles or prevention of translocation by blue stain fungus introduced by beetles. Normal beetle control measures involve treating infested trees as well as a 70-foot buffer of trees around the head of the infestation. Control is by salvage removal, cut and burn, cut and spray with pesticides. or cut and leave (in the summer only) - Trees from which the beetles have emerged usually contain populations of predatory insect species and should not be treated. If not controlled; infestations will destroy red-cockaded woodpecker nestingand foraging habitat and could have a significant adverse impact on a the species. In red-cockaded woodpecker habitat, modifications of control measures are necessary. The modifications discussed and agreed upon are as follows:

- Within colonies and buffer zones, each infested tree will be inspected individually and decisions made as to control measures for that tree; buffers of non-infested trees will not be treated,
- 2. Active cavity trees will not be cut or sprayed,
- 2. Active currey class with not be cut of sprayed,
- Dead or apparently live cavity trees from which beetles have emerged will not be cut,
 - Inactive cavities (dead, enlarged by other species, etc.) will not be cut unless a minimum of four cavity trees (active and inactive) per colony remain to provide shelter for a breeding pair of birds and up to two helper birds for the interim period necessary for excavation of new replacement cavities,
- 5. Spraying with presently approved pesticides (Lindane a chiorinated hydrocarbon, Dursban an organophosphate) will not be conducted within colonies and buffers trees cut within these areas will be removed,
 - Cutting of buffers around the head of infestations in contiguous habitat is acceptable unless doing so would separate the colony completely from suitable foraging territory (doughnutting or isolating colonies). In this case, the Camp Lejeune Wildlife Manager should determine if a buffer should be cut and, if so, the modifications of the buffer that should be made considering:
 - the likelihood of preventing the infestation from entering colony sites by cutting or not cutting the buffer,

ENCLOSURE (3)



b. the distance from the colony to suitable foraging territory if a buffer is cut (short distances would be crossed by the bird without undue impact) . and

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c. the probability of the infestation destroying all or a significant portion of the foraging territory if the buffer is cut versus not cut.

These guidelines were developed by inspection and discussions of the three infestation sites involving cavity trees. Specific application to the impacted cavity trees in the three areas is as follows:

----Far and a state Site 5 - The dead cavity tree should be left because the beetles have emerged ... The live cavity tree contains two cavities; one of which has been enlarged by pileated woodpeckers. The other is presently being enlarged. There are presently seven cavity trees within this colony. Therefore, this beetle infested inactive cavity tree should be cut and removed, leaving six healthy uninfested cavity trees within the colony site, which are sufficient for providing. shelter and exceed the minimum of four recommended. 5.11

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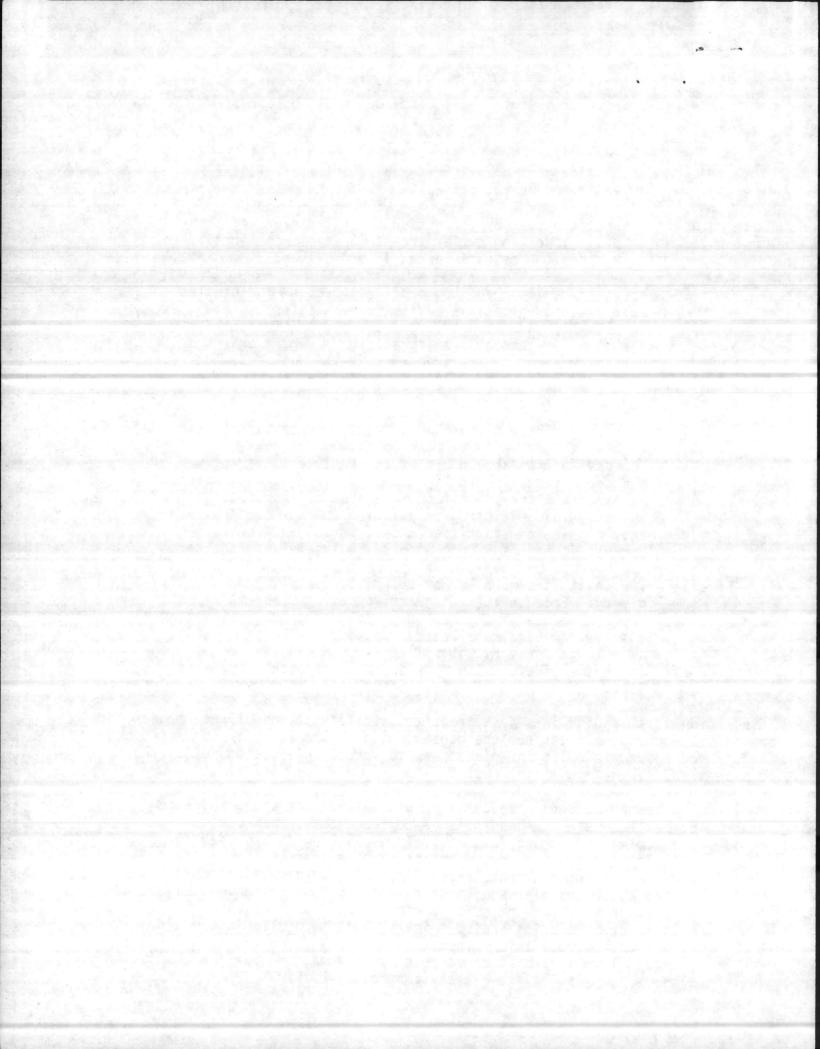
The cavity tree should not be cut because it is active Site 11 and the infestation is light and confined to the uppermost parts of the tree. In fact, the tree may have been successful in excluding or pitching out the beetles. The beetle infested start tree should be cut and removed because it is not a completed cavity useful for shelter.

- The cavity tree should not be cut because it has an active = Site 12 cavity. Because it was an active cavity tree, it was not checked to see if the beetles were successful in invading the tree or were repelled. Attacking beetle pitch tubes were large and very white in color, which is a good incicator of exclusion by some trees through heavy resin TI-CW_

In addition to the guidelines just presented, implementation of recommendations are offered, which will enhance the conservation of the red-cockaded woodpecker ana/or reduce susceptibility of pine trees to future infestations of southern These are as follows: pine beetles.

> Reduce man-caused injuries to pines. All of the trees infestedby beetles were stressed to some degree, most by man-caused physical injuries such as wounds from climbing spikes used in climbing trees, cutting implements such as axes and hatchets, heavy equipment and vehicles, and girdling by communication. wire. These injuries should be reduced to the minimum. Designation of certain areas or trees for training needs such as climbing, instead of permitting indiscriminate, haphazard climbing, would reduce the overall injury impact on timber and confine such impacts to exact locations that could be closely monitored for implementation of necessary insect and disease control.

> > ENCEOSURE 1.3



For minimum potential adverse impact to red-cockaded woodpeckers, treatment of infested trees in decreasing order of preference

b. cut and remove (salvage).

a. cut and leave.

c.t and burn, and:

are:

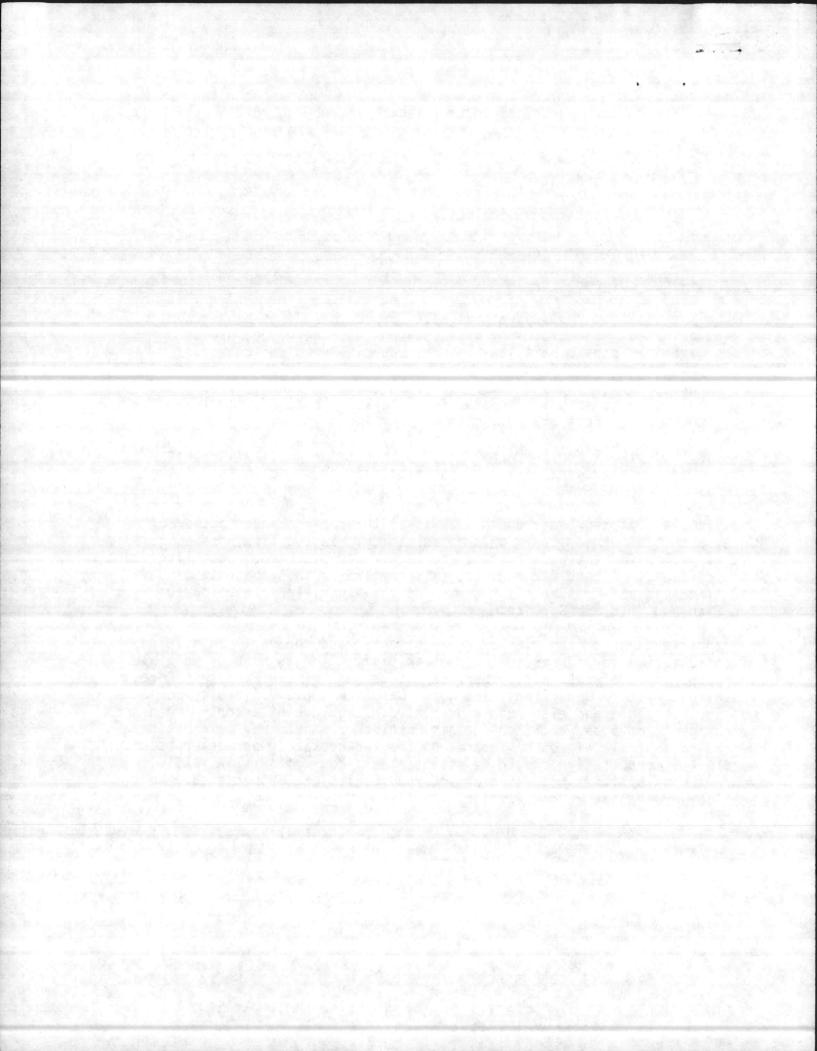
The only registered pesticides available for southern pine beetle control are chlorinated hydrocarbons or organophosphates, therefore, use of these materials should be a last resort, especially in red-cockaded weedpecker habitat. We recognize, however, that pesticide treatment may be necessary in order to carry out beetle control in as short a time period as possible. No standing trees should be chemically treated but once trees are cut, chemical treatment is unlikely to affect red-cockaded woodpeckers because they are not ground feeders. Howaver, exceptions do occur and there is an outside possibility that red-cockaded woodpeckers will feed on insects in or on cut trees on the ground.

Individuals with knowledge of the habits of the red-cockaded woodpecker were consulted for advice in this consultation. In addition, the approved recovery plan for the red-cockaded woodpecker and other pertinent literature were reviewed. A complete administrative record of this consultation is maintained and available for review at the Asheville Area Office of the Fish and Wildlife Service.

We appreciate the cooperation of your personnel and the early initiation of consultation in efforts to confront this situation as soon as possible. The cooperation of U.S. Forest Service (State and Private Forestry, Forest Insect and Disease Management) and North Carolina State University personnel was indispensable and also much appreciated. Should beetle control measures be changed from those outlined in this Opinion or should new information regarding control methods or impacts on the rad-cockaded woodpecker become available, consultation should be reinitiated. Your efforts in fulfilling your responsibilities regarding endangered species are appreciated. We lock forward to future cooperation.

Sincerely yours, Acting Regional Director

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FISH AND WILDLIFE SERVICE WASHINGTON, D.C. 20240

In Reply Refer To: FWS/OES 375.4

Honorable Mitzi M. Wertheim Deputy Under Secretary of the Navy Pentagon Washington, D.C. 20350

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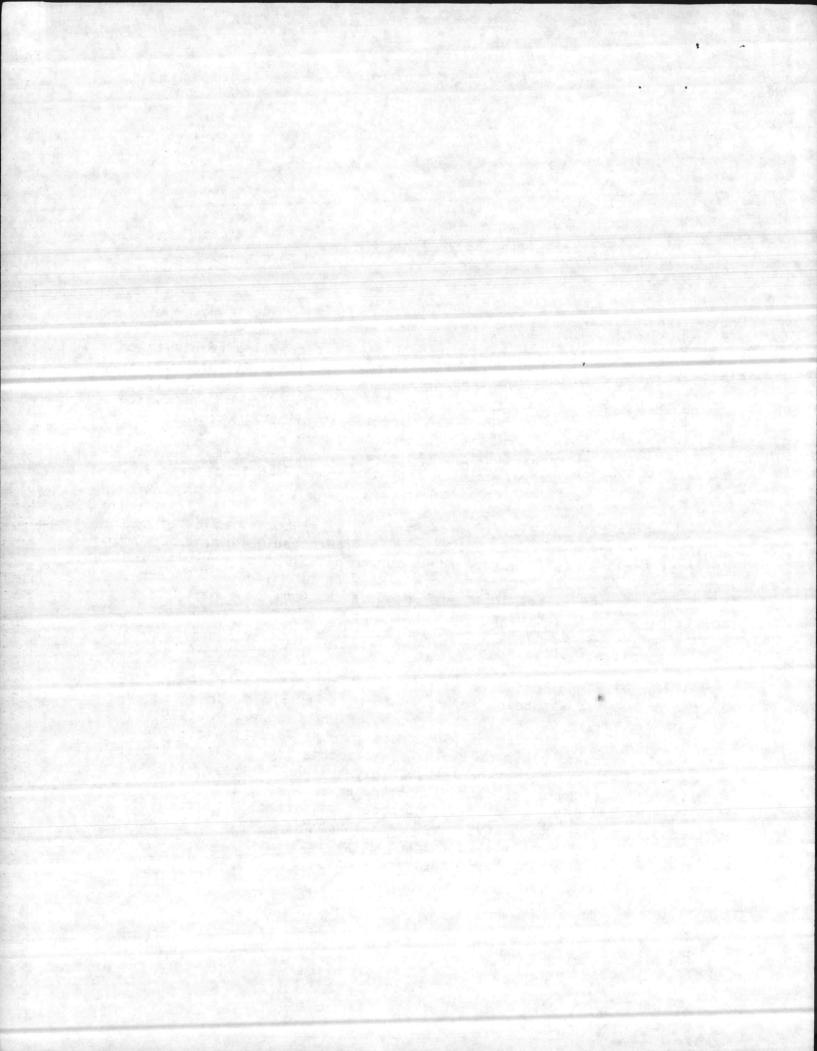
Dear Ms. Werthiem:

This responds to your letter of March 30, 1979, requesting reinitiation of consultation on the impacts of existing use patterns of the Mechanized Infantry Training Area on Camp Lejeune Marine Corps Base on the Endangered red-cockaded woodpecker. A biological opinion on the use of this area was issued by our Regional Director in Atlanta, Georgia, on February 1, 1979. A copy of that opinion is a part of the administrative record for this consultation. This correspondence serves as an amendment to the February 1 opinion and, therefore, should be read in conjunction with that earlier opinion.

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By letter of April 2, 1979, I agreed to reinitiate consultation at the Washington Office level and appointed a Service consultation team. Your letter of April 3, 1979, acknowledged our reinitiation of consultation and appointed Ms. Mary Margaret Goodwin as your team leader. On April 24, 25, and 26, 1979, meetings were conducted at Camp Lejeune by the consultation teams, including the Commanding Generals of the Camp Lejeune Marine Corps Base and the Second Marine Division and members of their respective staffs.

Field investigations conducted by the teams revealed that red-cockaded woodpecker habitat was being adversely impacted by the training activlties previously described in paragraph 4 of the February 1, 1979, opinion, i.e.: (1) cutting of pine trees for barricades, etc.; (2) mechanical damage to pines by vehicles; (3) mortality of pines, including cavity trees, from root damage by heavy tracked vehicles; (4) girdling of pines by attachment of communication wires, etc.; (5) soil disturbance from dig ing foxholes, garbage pits, trenches, etc.; (6) soil and plant disturbance by heavy tracked vehicles traversing general forest areas off of established roads and trails; (7) destroyed or removed signs delineating designated areas and; (3) fire damage from



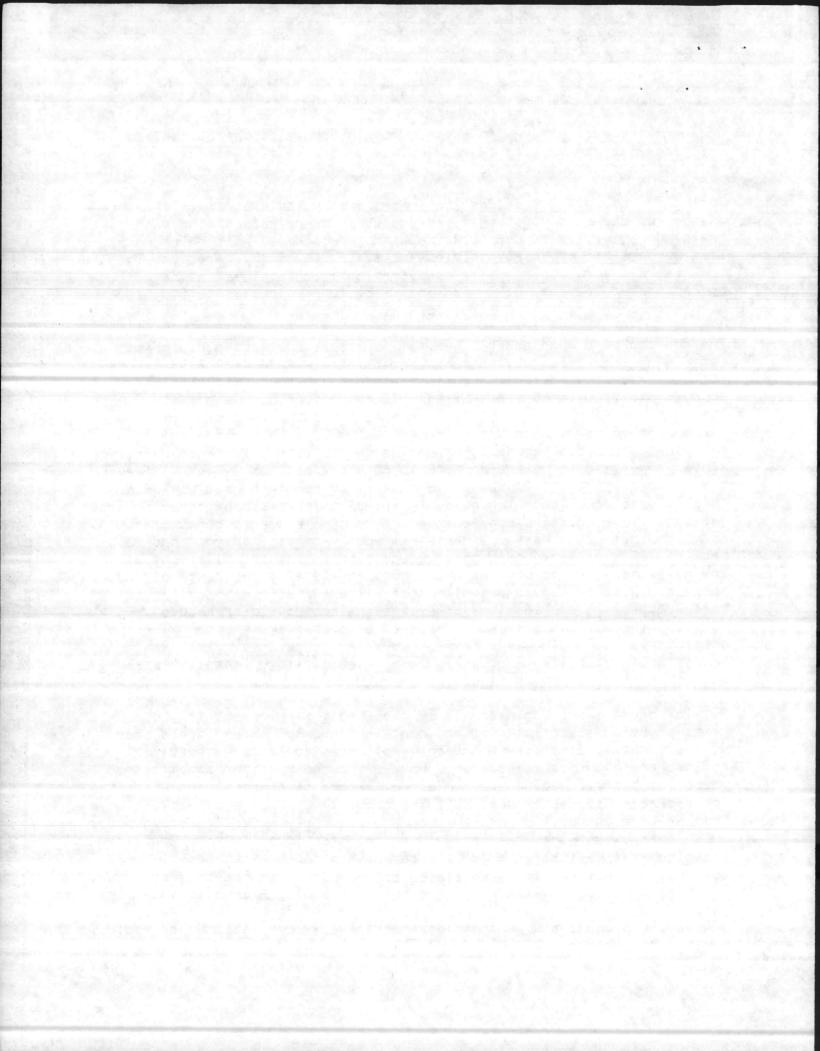
accidental fires. It was found that continued use of the Mechanized Training Area at existing levels is likely to result in the complete destruction of the forest habitat.

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During the course of the consultation, the team reviewed the literature on the red-cockaded woodpecker and discussed the bird's biology and the training activities on Camp Lejeune with red-cockaded woodpecker Recovery Team members and other authorities knowledgeable of this species. The administrative record for this consultation is maintained in the Office of Endangered Species, U.S. Fish and Wildlife Service, Suite 500, 1000 N. Glebe Road, Arlington, Virginia.

The red-cockaded woodpecker's habitat is mature southern pine forests containing some trees having red heart disease. Red heart disease does not begin to occur naturally until the trees are "over mature," at approximately 60 to 80 years-of-age. Because much of the private timber lands in the South are intensively managed for pulp wood production and the amount of saw timber grown is decreasing rapidly, little suitable red-cockaded woodpecker habitat remains on these private lands. Private timber forests usually are on a 40 to 60-year rotation, which will eventually (perhaps by 2010) result in the nearly complete eradication of this woodpecker on such lands. Only the pine forests managed by Federal and some State agencies can be expected to maintain a longer timber rotation that may preserve forests attractive to the red-cockaded woodpecker. In the last decade no documentation of the establishment of any new woodpecker colony has been found anywhere in the range of the species. With the anticipated loss of all private forest habitat for this woodpecker, and the lack of expansion into now "over mature", ----forests, the outlook for the red-cockaded woodpecker is poor. These habitats found in highway rights-of-way, parks, refuges, game management areas, public forests, and, as in this case, military installations may save this species from extinction.

Public forest lands administered by the Forest Service and the Departments of Defense and Interior now contain stands of mature trees and will ultimately comprise the majority of forested lands with suitable red-cockaded woodpecker habitat. However, current timber practices on these lands are reducing the numbers of mature pine trees upon which the red-cockaded woodpecker depends. The cumulative effects of actions on both private and public forest lands are adversely affecting the species to such an extent that the loss of the colonies found in the Mechanized Training Area is likely to jeopardize the continued existence of the species. Therefore, it is my biological opinion that the present activities conducted within the Mechanized Training Area are likely to jeopardize the continued existence of the red-cockaded woodpecker; however, a prudent and reasonable alternative is available which would avoid such jeopardy.



A review by the Marine Corps of the two alternatives offered in the February 1, 1979, opinion indicated that neither was acceptable to the training requirements of the Marine Corps. In their review of the first alternative (an alternative area for the mechanized training) the Marine Corps indicated that the selection of an alternative site is not practical because of the need for contiguous uninterrupted travel of troops, vehicles, and equipment between the ocean landing beaches and the Mechanized Training Area. Due to the configuration of the land at Camp Lejeune and the existing land use (e.g., ordnance impact areas) there are no alternative sites which meet the specific training requirements associated with both mechanized training and beach assaults.

The Marine Corps felt that the guidelines presented in the second alternative (modify use and management within present training area) would effectively eliminate their use of the Mechanized Training Area. In-depth discussions resulted in a better understanding of training activities and the types of actions which need to be conducted in the Mechanized Training Area. Because this area is essential for meeting the training requirements at Camp Lejeune and contains nine known woodpecker colonies (plus two others on the periphery) the Service's consultation team considered alternative use patterns for the Mechanized Training Area that would allow training activities which would be compatible with the conservation of the woodpecker. Although this was the intended purpose of the second alternative described in the February 1 opinion, discussions with Marine Corps personnel at Camp Lejeune revealed that there was some confusion and misunderstanding of the February I guidelines. These in-depth discussions provided a better understanding for all.

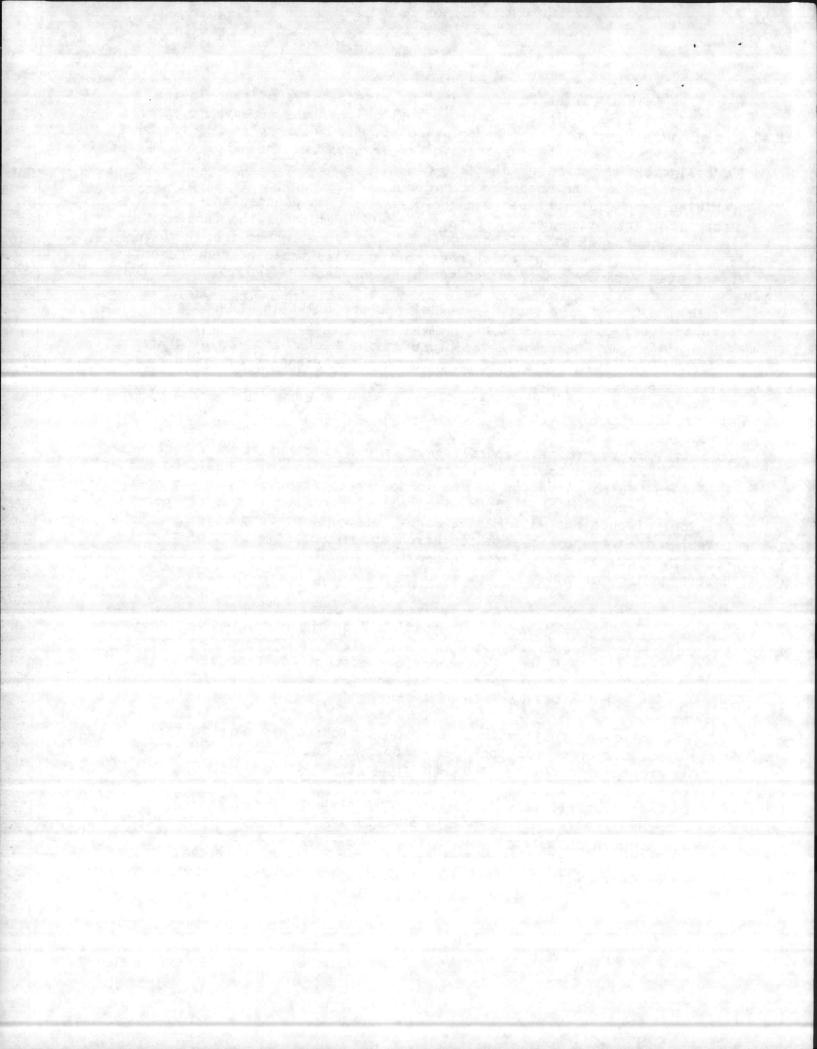
It is my opinion that if the guidelines for use of the Mechanized Training Area, enumerated in alternative 2 of the Service's Regional Office opinion of February 1, 1979, are deleted and replaced with the following guidelines, the likelihood of jeopardy would be eliminated. The conclusion (i.e., jeopardy to the species) of the February 1 biological opinion will remain as written.

1. The following restrictions and prohibitions apply only to the marked boundaries of red-cockaded woodpecker <u>buffer</u> zones (200-foot radius around each cavity tree) and <u>support</u> stands:

a. Restrict all vehicle use to designated roads and trails (any new trails shall be designated by the Ease Natural Resources Division in consultation with the Base Training Department and shall be consistent with the conservation of the red-cockaded woodpecker) with the following exceptions: command tracked vehicles

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may utilize a single, predesignated, ingress/egress route to each preselected command post site in red-cockaded woodpecker support stands, and wheeled vehicles may be used in the immediate vicinity of the bivouac and preselected command sites in red-cockaded woodpecker support stands. All vehicles operating within the support stands are prohibited from causing destruction or injury to tree roots or bark. No vehicles shall be allowed at any time within the buffer zones except for bona fide emergencies (fire or injured personnel) or on trails already designated as of April 26, 1979.

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b. Prohibit indiscriminate cutting or destruction of woody vegetation. Only vegetation that has been specifically marked for cutting within a support stand may be cut for camouflage material, wood fires, barricades, etc. Such trees will be marked in advance only by the Ease Natural Resources personnel and in a manner consistent with the conservation of the woodpecker. Should additional woody material be needed, it will be obtained outside the boundaries of the support stands of the Mechanized Training Area and brought into these areas for use.

c. Prohibit any excavating or digging that would result in the destruction of wood, vegetation, including damage to root systems. Troops should be encouraged to utilize existing fox holes, trenches, etc.

2. Probibit the establishment of command posts and bivouacs in any buffer zones.

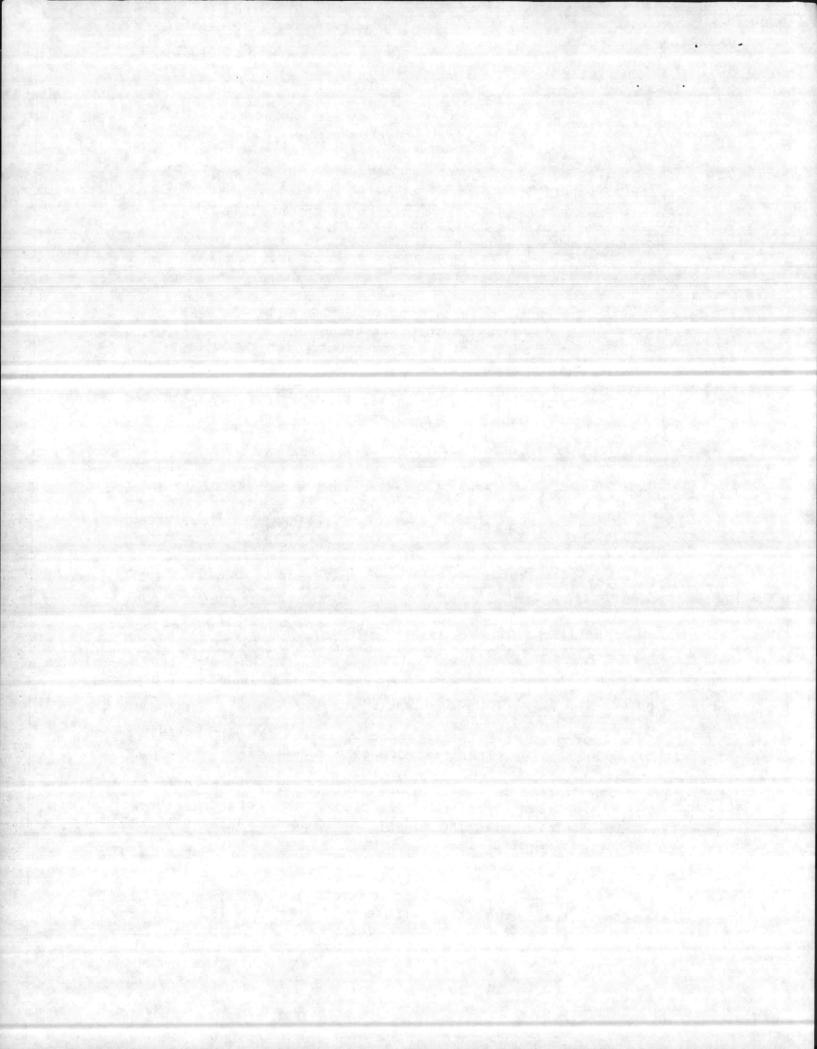
3. Prohibit the firing of artillery within 200 meters of a red-cockaded woodpecker cavity tree.

4. Increase the prescribed burning program in the Mechanized Training Area to reduce the potential for wildfires.

5. Initiate a program to at least annually survey the Mechanized Training Area and remove wires that are girdling trees.

5. Utilize other areas on the Base outside the Mechanized Training Area for more of the routine training by field units not requiring the specific features (e.g., landing zones, Combat Town) and tracked vehicles in the Mechanized Training Area.

7. The Mechanized Training Area will be inspected at periodic intervals by the U.S. Fish and Wildlife Service. Recommendations will then be made as to the effectiveness of the Base guidelines and regulations.



Inspections will determine if significant violations have occurred and Insure that proper actions have been taken to correct any violations. Included in these inspections would be an annual color infrared aerial photo of the Mechanized Training Area. This photograph is to be provided by the Marine Corps at a scale suitable to detect the death of Individual large trees (over 1 foot DBH).

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In order to greatly facilitate the implementation and effectiveness of the above guidelines, we suggest that the following actions should be taken at Camp Lejeune:

A. An information/education program should be initiated and maintained to effect a change of attitude among all personnel utilizing Camp Lejeune concerning natural resources management, in general, and the Endangered red-c2ckaded woodpecker, in particular.

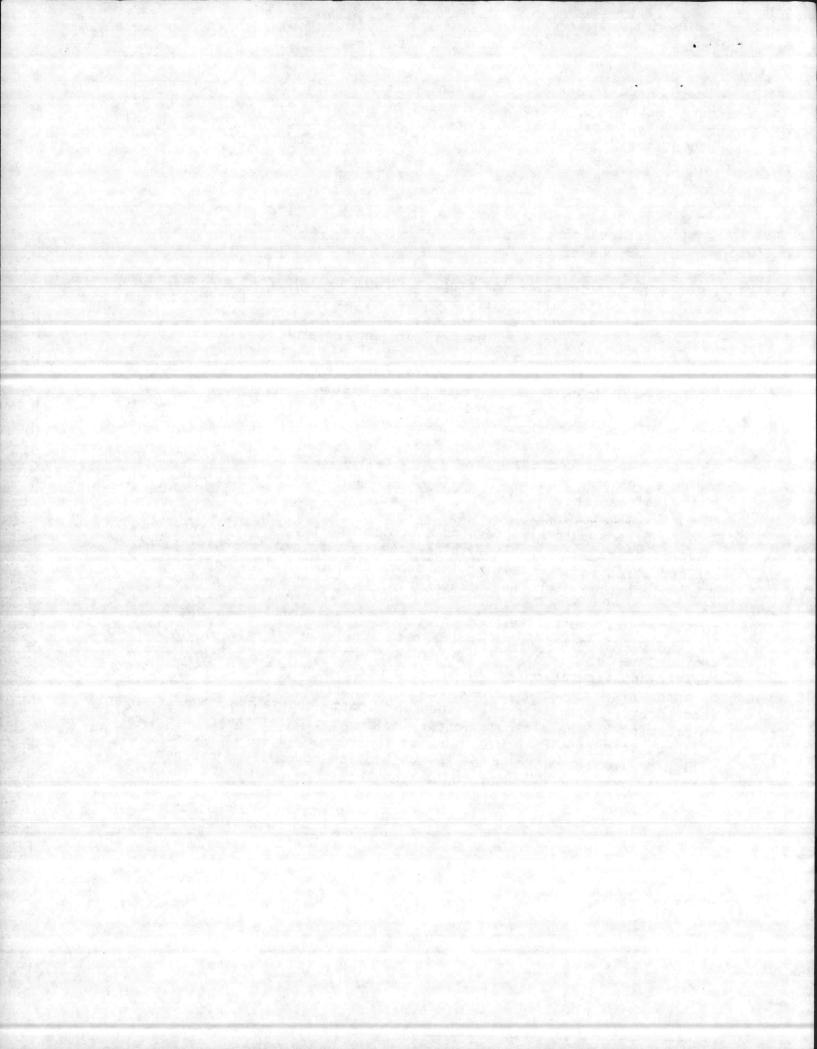
B. A responsibility and accountability program should be developed at all levels to insure that the use of the Mechanized Training Area is compatible with the maintenance of the red-cockaded woodpecker buffer zones and support stands.

C. Base regulations and guidelines should be prepared which are brought to the attention of all personnel using Camp Lejeune and these should be effectively enforced.

D. The Base should also develop a monitoring program to insure that the protective measures instituted from this opinion are having the desired effect of maintaining the support stands and buffer zones as viable habitat for the woodpecker.

In summary, I would like to point out that the major thrust of the February opinion has not been changed. There is an imperative need to protect the habitat of the red-cockaded woodpecker and provide ample replacement vegetation for the future needs of the bird. This can best be accomplished by the implementation of appropriate Base regulations incorporating the above guidelines and, most importantly, the stringent enforcement of these regulations. Implementation of the regulations will not only provide protection for the red-cockaded woodpecker, but will also insure that the natural vegetation cover is maintained for the continued training needs of the Marine Corps.

I would like to thank you, your Special Assistant, and the Commanding Generals and their respective staffs of the Camp Lejeune Marine Corps



Base and the Second Harine Division for cooperating with my consultation team and for the genuine interest shown in natural resources management and the Endangered Species Program. Your assistance made this consultation proceed very smoothly and successfully.

Should this action, as now planned, be modified or altered or should new species be listed that may be affected, you must reinitiate consultation.

Sincerely yours,

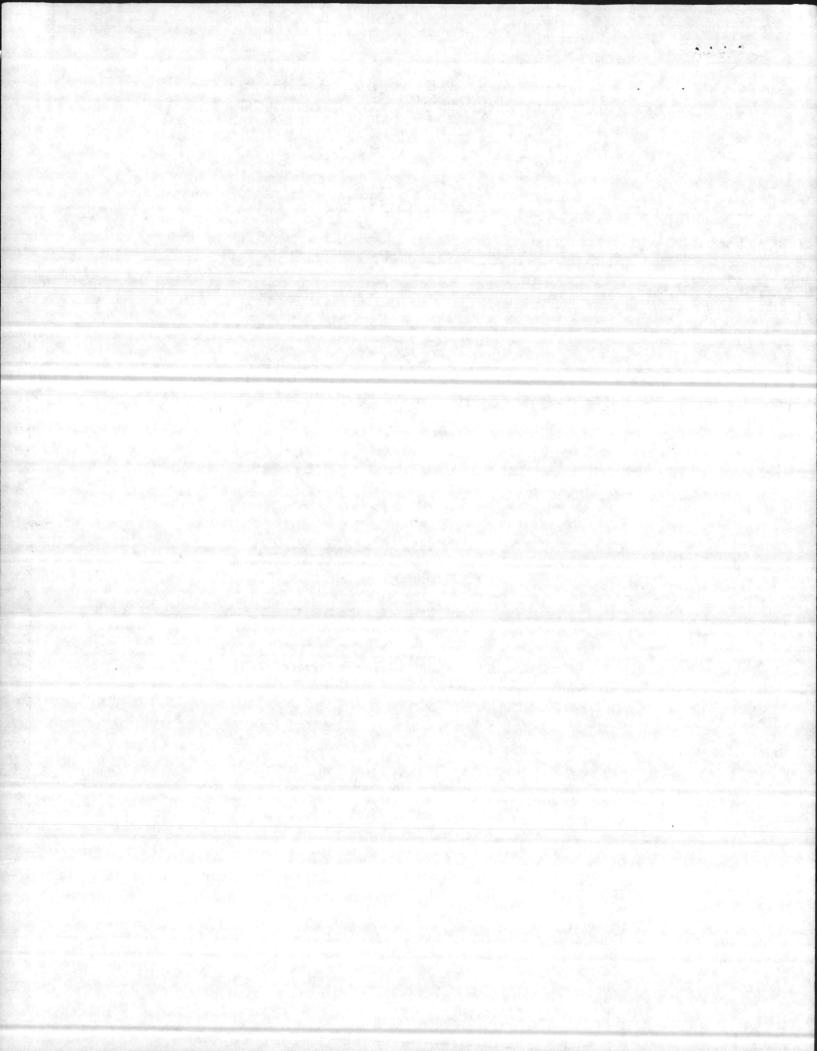
Harold J. O'Comor

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Acting Director

cc: CG, Camp Lejuene MCB CG, Second Marine Division Regions 2, 4, and 5 Mr. Jim Baker, Jacksonville Area Office Mr. Wendell Neal, Jackson Area Office

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United States Department of the Interior FISH AND WILDLIFE SERVICE P. O. BOX 95C67 ATLANTA, GEORGIA 30347

APR 23 1979

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

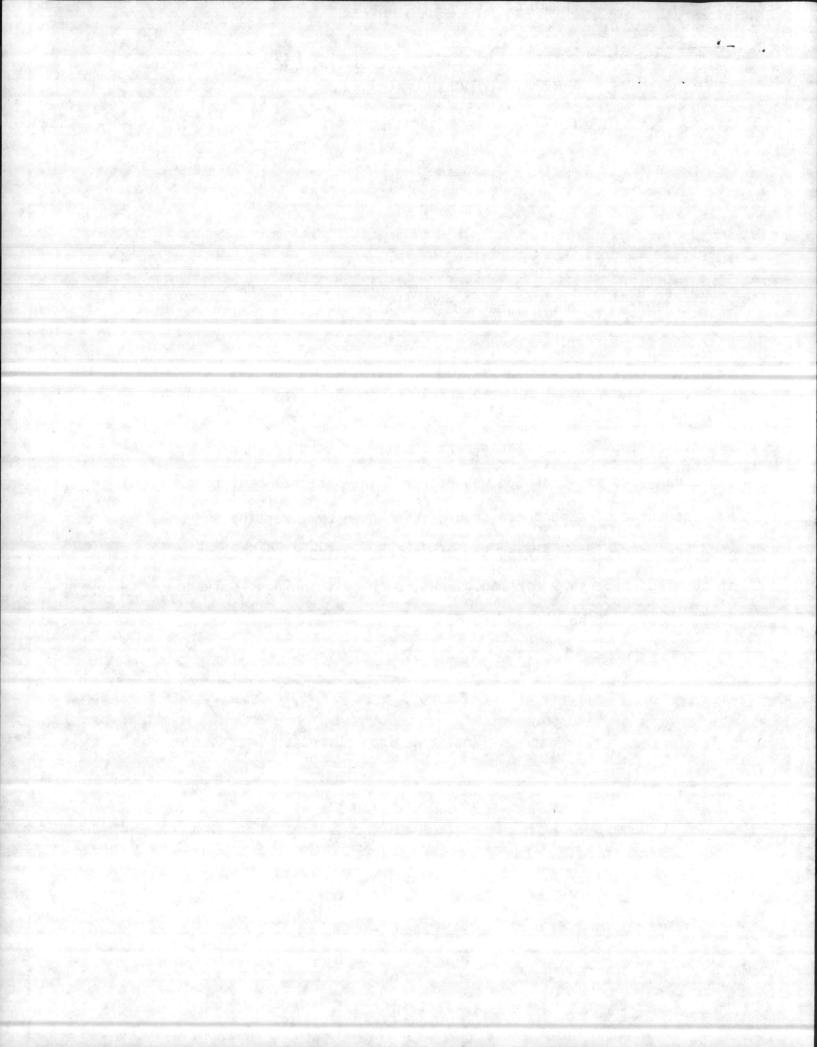
Dear General Barker:

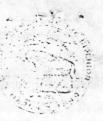
This letter is intended to clarify one point in the Biological Opinion rendered by letter dated April 3, 1979, regarding the effects of the forestry management program at Camp Lejeune on the endangered red-cockaded woodpecker. The sentence beginning on line three of page three should be changed by inserting the word "regeneration" between the words "no cutting." Other types of cuttings necessary for management, such as thinnings, salvage etc., should not be discontinued.

Sincerely yours,

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scons Regional Director





United States Department of the Interior FISH AND WILDLIFE SERVICE P. O. BOX 95067 ATLANTA, GEORGIA 30347

APR 3 1979

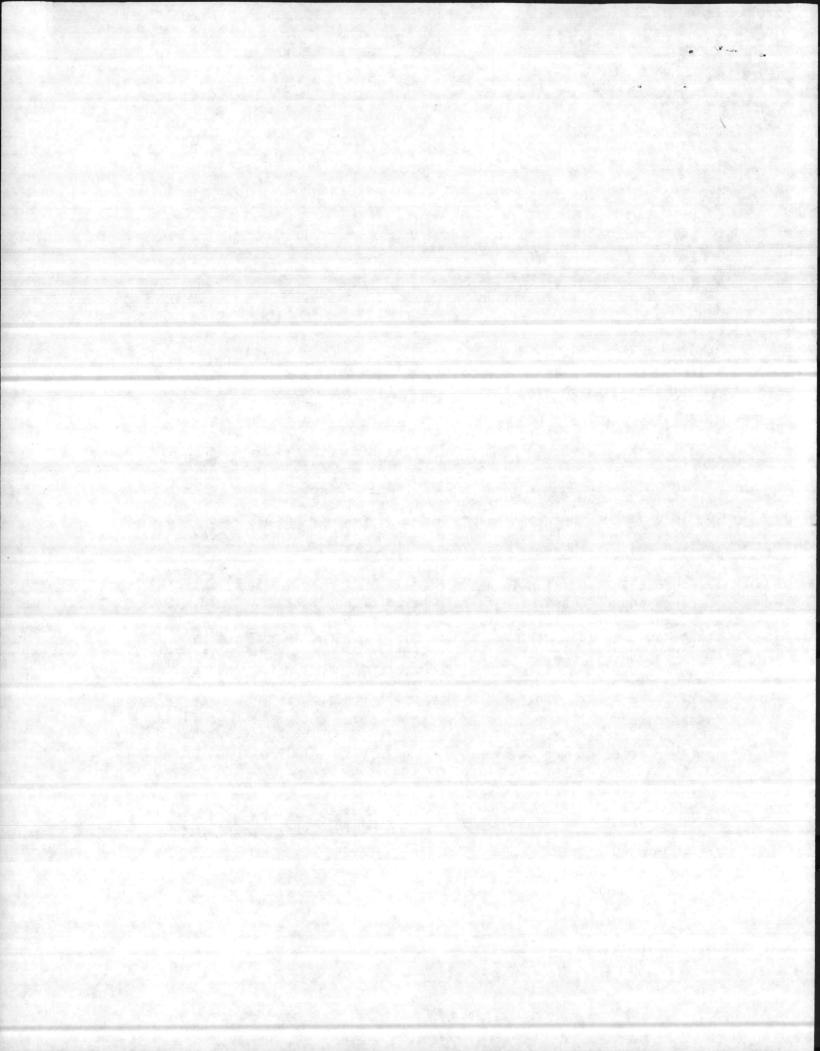
Brigadier General D. B. Barker U. S. Marine Corps Marine Corps Base Camp Lejeune, North Carolina 28542

Dear General Barker:

This letter presents the Biological Opinion of the Fish and Wildlife Service relative to the effects of the forestry management program at Camp Lejeune on the endangered red-cockaded woodpecker (<u>Picoides</u> <u>borealis</u>). It is in response to the request dated September 13, 1978, for formal consultation pursuant to Section 7 of the Endangered Species Act of 1973. A Biological Opinion concerning the Mechanized Infantry Training Area and the red-cockaded woodpecker population within the training area was rendered February 1, 1979. A field inspection of the Browns Island Impact Area was conducted February 27, 1979; and an opinion regarding the effects of Marine Corps training activities on Camp Lejeune's beaches upon the threatened loggerhead turtle will be finalized shortly.

This Biological Opinion is based upon field inspections and associated meetings and discussions with Base personnel on December 11-12, 1978, and January 11-12, 1979; review of the Camp Lejeune Natural Resource Management Plan and Habitat Management Guidelines for the Red-Cockaded Woodpecker; review of the draft Red-Cockaded Woodpecker Recovery Plan and other pertinent literature; and communications with researchers and managers currently working with the species. Also, a review of the draft Biological Opinion at the March 22, 1979, meeting (attendee list enclosed) at Camp Lejeune indicated no objections to the findings of this opinion. It was also indicated by the Base Forester that implementation of the opinion would cause very little disruption of the forest management activities on the Base. An administrative record is available in the Asheville Area Office.

After review of the findings by Fish and Wildlife personnel in the Asheville Area Office, it is our Biological Opinion that the present Forestry management program at Camp Lejeune is likely to jeopardize the continued existence of the red-cockaded woodpecker unless one of the reasonable and prudent alternatives is implemented. The information supporting this opinion follows.



The present guidelines for habitat management of the red-cockaded scodpecker on Camp Lejeune follow guidelines set forth in an early draft of the recovery plan. These recovery plan guidelines have been changed slightly by the latest recovery plan draft. The major change is an increase in the size of the support stand provided for each colony from 100 to 200 acres. This change is based upon the approximate average home range of the species of 200-250 acres. Actually these new guidelines work out to be the same as present Camp Lejeune guidelines when analyzed. Camp Lejeune guidelines call for 100-acre support stands 40 years old or older. Where rotations are 80 years old this would equal 200 acres with an even distribution of all age classes, i.e., 100 acres over 40 years old and 100 acres under 40 years old. There is presently a conflict in Camp Lejeune quidelines in that rotations are established for the support stands but the support stands must be 40 years old or older; therefore, no regeneration is possible, and rotations are thus meaningless.

The draft recovery plan and Camp Lejeune guidelines call for 80-year rotations for lobiolly pine and 100-year rotations for longleaf in support stands, thus recognizing the need for mature stands to provide adequate roosting and nesting habitat. Existing literature is consistent in pointing out this need. Mean cavity tree ages range from 72 to 125 years for longleaf, 71 to 98 years for lobiolly, and 62 to 131 years for pond pine. Aging of cavity trees at Camp Lejeune would be expected to be similar. Although stand ages on Camp Lejeune are considerably younger than this, the actual cavities are probably in older relict trees, which is a common characteristic throughout the bird's range.

There are two closely related reasonable and prudent alternatives that would remove jeopardy to the species from the forestry management program at Camp Lejeune. These are:

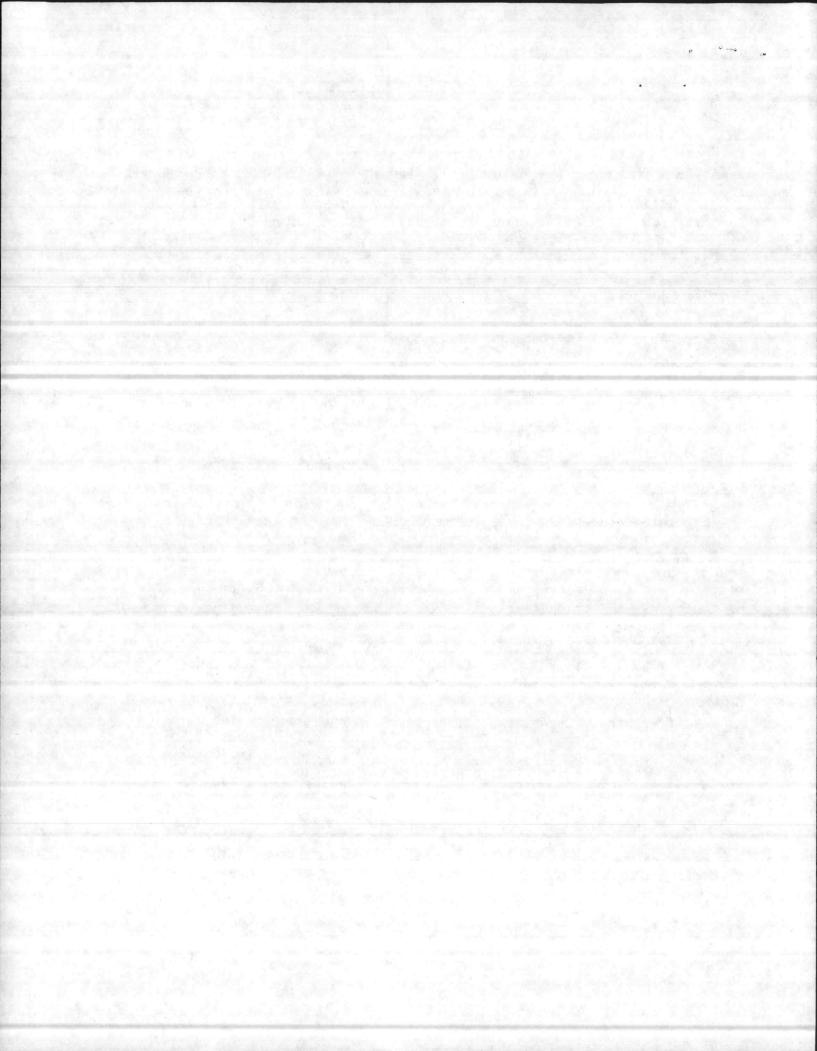
1. Extend rotations for all pine to 100 years.

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 Extend rotations for lobiolly pine to 80 years and for longleaf and pond pine to 100 years.

The difference between these alternatives is rotation for loblolly tine, the most common pine species on Camp Lejeune. At present, pine species are regulated as a group on Camp Lejeune, and this would require implementation of alternative one. However, regulation of loblolly separately would permit implementation of alternative two.

It is recognized in the alternatives presented that stands younger than rotation age must be cut to achieve a balance of age classes. However, this cutting must occur in the age classes containing more acreage than necessary to achieve balance; i.e., predominantly ages



30 to 57 on Camp Lejeune. At present only 2,594 acres are older than 50 years and thus considered suitable for meeting shelter requirement representions of the red-cockaded woodpecker. Therefore, there should be no cutting in age classes above 60 until 40 percent of the acreage on 100-year rotations and/or 25 percent of the acreage on 80-year rotations are 60 years old or older. Some stands must be carried past rotation age in order to achieve a balance of age classes and provide habitat for the red-cockaded woodpecker.

Management by one of the alternatives eliminates the need for the identification of support stands on the ground and thus simplifies management. This applies to Camp Lejeune with the exception of the Mechanized Infantry Training Area. Because of the potential of tremendous adverse impact on the overall ecology and habitat of the red-cockaded woodpecker by such training activities, support stands and the inherent restrictions addressed in the Biological Opinion of February 1, 1979, are still necessary in the Training Area.

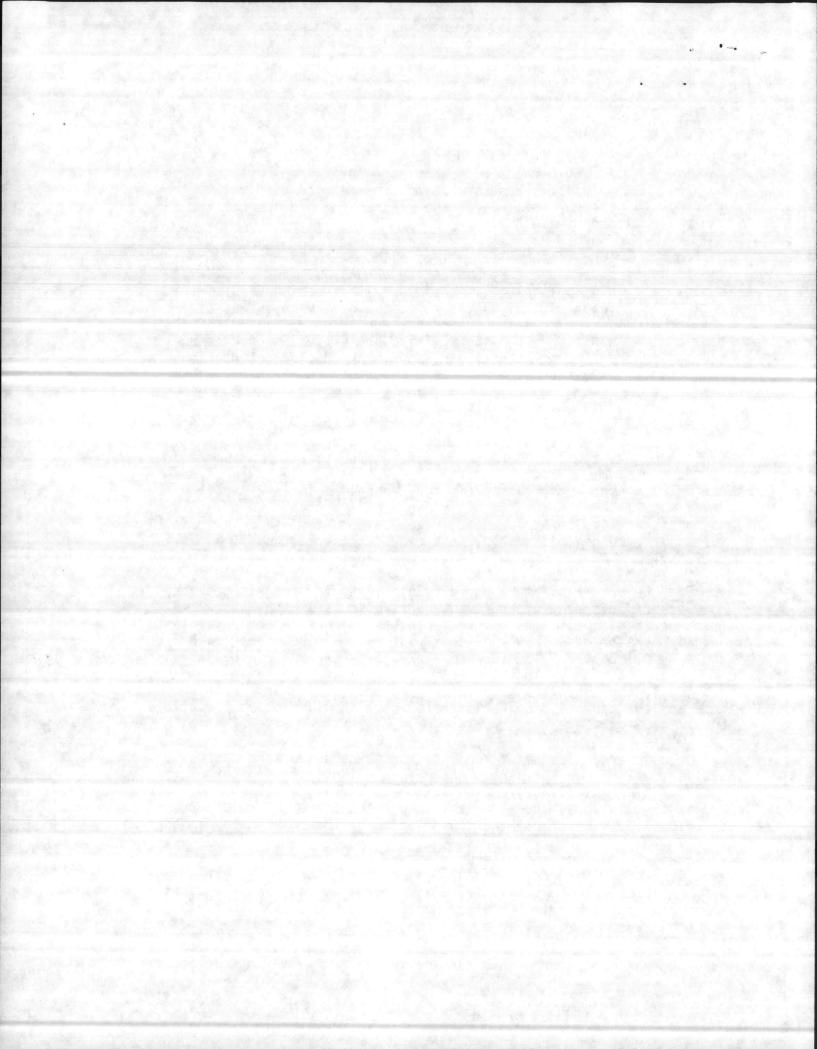
However, even though marked support stands per se are not necessary, the alternatives must include the provision that colonies are not isolated by cutting on all sides but are always connected to a minimum of 200 acres of contiguous pine and/or pine-hardwood stands 20 years old or older. No more than one-third of the compartment, or one-third of the support stand in the Mechanized Infantry Training Area, should be in 0-20 year age classes at any time. To prevent major disruptions to home ranges, regeneration stand sizes immediately surrounding colony sites should not exceed 50 acres, and 30 acres is preferable.

The Camp Lejeune Habitat Management Guidelines for the Red-Cockaded Moodpecker needs some other revisions as discussed with Natural Resources personnel. The buffer zones, as well as the colony sites, should be restricted from road construction. The colonies and buffer zones should be prescribed burned at 2- to 3-year intervals, instead of 5-year intervals. To the extent feasible with available manpower and funds, the support stands in the Mechanized Infantry Training Area and the general pine habitat elsewhere should also be prescribed burned at 2- to 3-year intervals.

Although several management concepts for the species were carefully evaluated, including present Camp Lejeune guidelines, present draft recovery plan guidelines, and U. S. Forest Service existing and proposed guidelines, the alternatives presented are the most certain of all concepts to ensure the conservation of the red-cockaded woodpecker.

As agreed in discussions with Base Natural Resources personnel, we evaluated other alternatives based on modifications of the presented alternatives that would exclude certain acreage from long rotations where habitat is marginal and/or unoccupied and not believed to be

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needed in the foreseeable future for expansion of present red-cockaded populations. However, consideration of seven different alternatives resulted in excluded acreages ranging from 4,889 to 6,940 acres. In discussions with the Base Forester, it was agreed that this small acreage would not justify the added effort, difficulty, and cost of regulating separately. Therefore, these alternatives are not presented but are a part of the administrative record on this Biological Opinion filed at the Asheville Area Office.

We certainly recognize that existing management of the red-cockaded woodpecker at Camp Lejeune was based on the best information and recommendations available at the time, and this interest and initiative in conservation of endangered species is commended. Unfortunately, continued analysis of data and new information indicates a necessity to do more. The cumulative effects of shorter rotations than those presented in the alternatives for public lands, which contain approximately 90 percent of present red-cockaded woodpecker populations, is believed extremely detrimental when added to the trend to shorter pulpwood rotations on private lands over which we have no control, the decreasing availability of southern pine sawtimber across the southeast, and the restriction of the species to a very small percent of its original habitat.

Current research on the species should shed more light on essential habitat requirements of the species. Such new information would, of course, be one basis for reinitiating consultation, if Camp Lejeune so desired. Along these lines, we would certainly recommend that data be collected on Camp Lejeune regarding cavity tree ages stratified by species of tree, stand forest type, site index, and start trees versus existing cavities. This would provide input on age of trees selected for cavities on Camp Lejeune, age of trees when cavity excavation begins, and the effect of site index on selection of cavity trees by age.

We appreciate the assistance provided in this consultation by your entire staff, particularly the Natural Resources Division personnel. We hope this assists you in meeting your obligations under the Endangered Species Act of 1973, as this is the spirit in which this Biological Opinion is rendered. We look forward to continuing cooperation between our agencies.

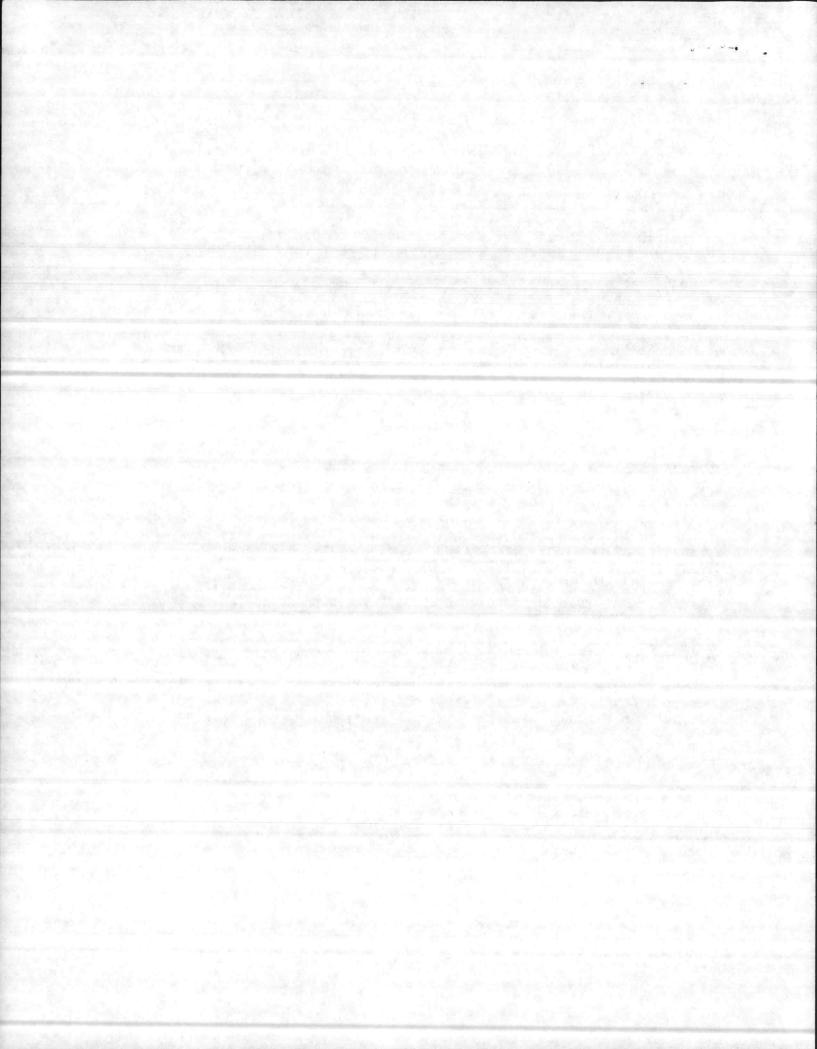
Sincerely yours,

moth S. Back

Regional Director

Enclosure

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ENVIRONMENTAL IMPACT CONFERENCE Camp Lejeune, North Carolina March 22, 1979

Spec. Asst. to DUSN for the Environ.

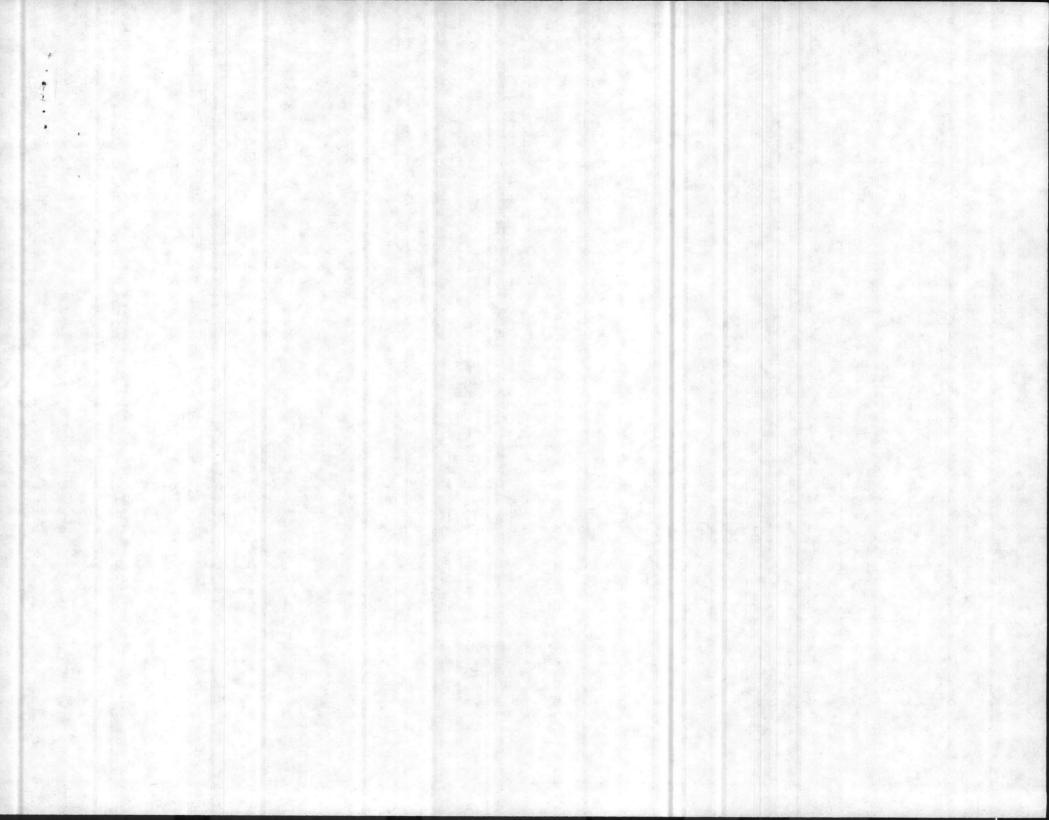
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Harold W. Benson Alex B. Montgomery Gary Henry B. Gen. E. C. Cheatham B. Gen. D. B. Barker B. Gen. H. S. Aitken Col. A. A. Sardo Col. J. R. Fridell Col. J. R. Motelewski Maj. J. A. Janega Col. J. R. Baisley Julian Wooten Charles D. Peterson Kenneth C. Harrison Capt. F. N. Kibler Lt. Col. N. H. Grosz Lt. Col. R. D. Boles Wendell Neal Warren T. Parker William Hickling James M. Kearns, Jr. Robert Cooke Bill Ellston

Asst. Reg. Dir.---Fed. Assistance, US FWS Sr. Staff Spec .--- Endang. Species, US FWS Sec. 7 Team Leader, US FWS Dir. Fac. & Svc. CG, MCB Asst. Div. Cdr. 2d Marine Division AC/S G-3, 2d Marine Division AC/S Trng., IICB SJA, MCB Office of the SJA Base Maint, O Base Maint. Mildlife Mgr., Base Maint. Base Forester, Base Maint. Asst. G-3 Tang., 2d Marine Division Trng. 0, 2d Marine Division Trng., Facil. 0 Sec. 7 Team Leader, US FWS Endang. Species Coordinator, US FWS Area Manager, US FWS HQMC, Environ. Prog. Mgr. Endang. Species Specialist, US FWS Deputy, Environmental

The Pentagon, 4E725, Washington, D. C. Atlanta, Georgia Atlanta, Georgia Asheville, N. C. HOMC Camp Lejeune Jackson, Mississippi Asheville, N.C. Asheville. N. C. Washington, D. C. Atlanta, Georgia Camp Lejeune



United CL es Department of the FISH AND WILDLIFE SERVICE P. O. BOX 55057 ATLANTA, GEORGIA 30347

FEB 1-1979

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

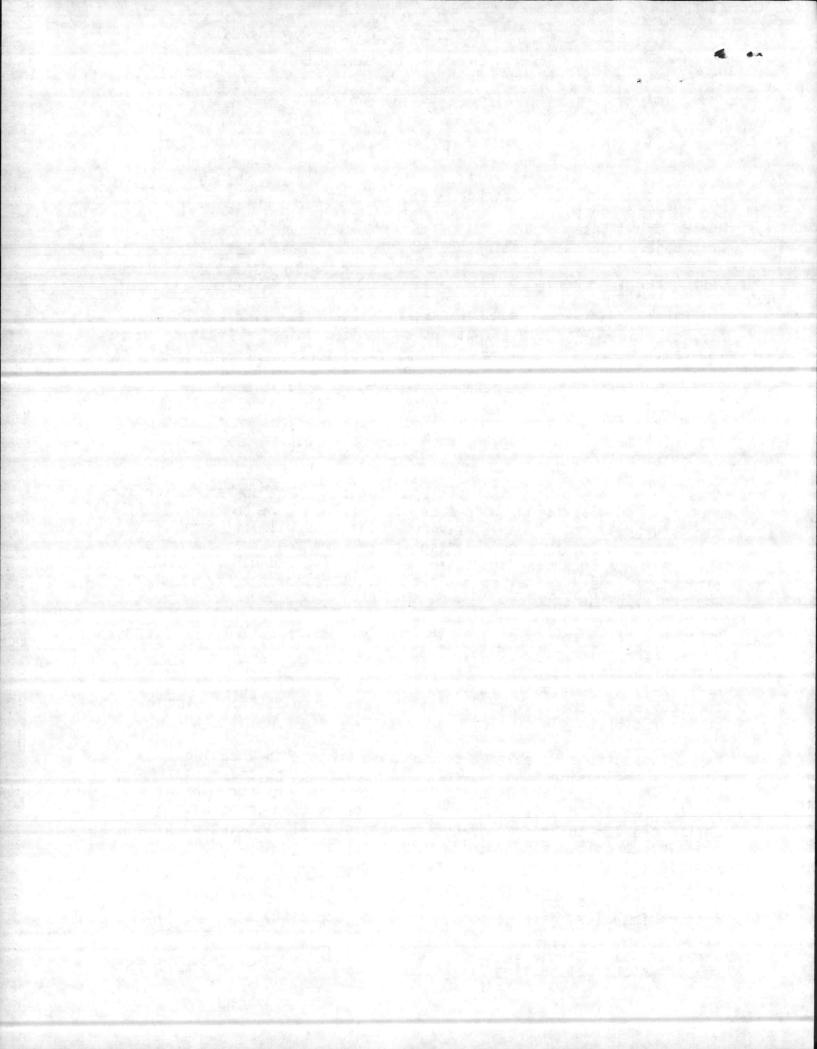
Dear General Barker:

This letter presents the Biological Opinion of the Fish and Wildlife Service relative to the effects of mechanized infantry training in the Camp Lejeune Mechanized Infantry Training Area upon the endangered red-cockaded woodpecker (<u>Picoides borealis</u>). Your letter to Regional Director Black, dated September 13, 1978, also requested consultation on the base's management plans for the red-cockaded woodpecker and sea turtles. The Biological Opinions on these two base-wide management programs will be handled separately and will follow at a later date.

This Biological Opinion is based upon field inspections and associated meetings and discussions with base personnel on December 11 and 12, 1978, and January 11 and 12, 1979, review of Fish and Wildlife Service files on past informal consultation concerning the area, review of the Draft Red-Cockaded Hoodpecker Recovery Plan and other pertinent literature, and informal communication with researchers currently working with the species.

After a careful review of the fimilings by Fish and Wildlife personnel in the Asheville Area Office, it is our Biological Opinion that existing activities within the Machanized Infantry Training Area are likely to jeopardize the continued existence of the redcockaded woodpecker. This opinion is based upon the following considerations:

Field inspections revealed a commendable program in locating, marking, and designating red-cockaded woodpacker colonies, buffer zones, and support stands within the Machanized Infantry Training Area. However, the following adverse impacts were found within designated red-cockaded wood-packer habitat: (1) cutting of pine trees for barricades, etc.; (2) mechanical damage to pines by vehicles; (3) mortality of pines, including cavity trees, from root damage by heavy tracked vehicles; (4) girdling of pines by attachment of communication wires, etc.; (5) soil disturbance from digging foxholes, garbage pits, tranches, etc.; (6) soil and plant disturbance by heavy tracked vehicles traversing general forest areas off of established roads and trails; (7) destroyed or removed signs delineating designated areas and; (8) fire damage from



accidental fires. These impacts are thought to the result of lack of knowledge and/or enforcement of current regulations and poor conservation attitudes regarding endangered species, especially red-cockaded woodpeckers.

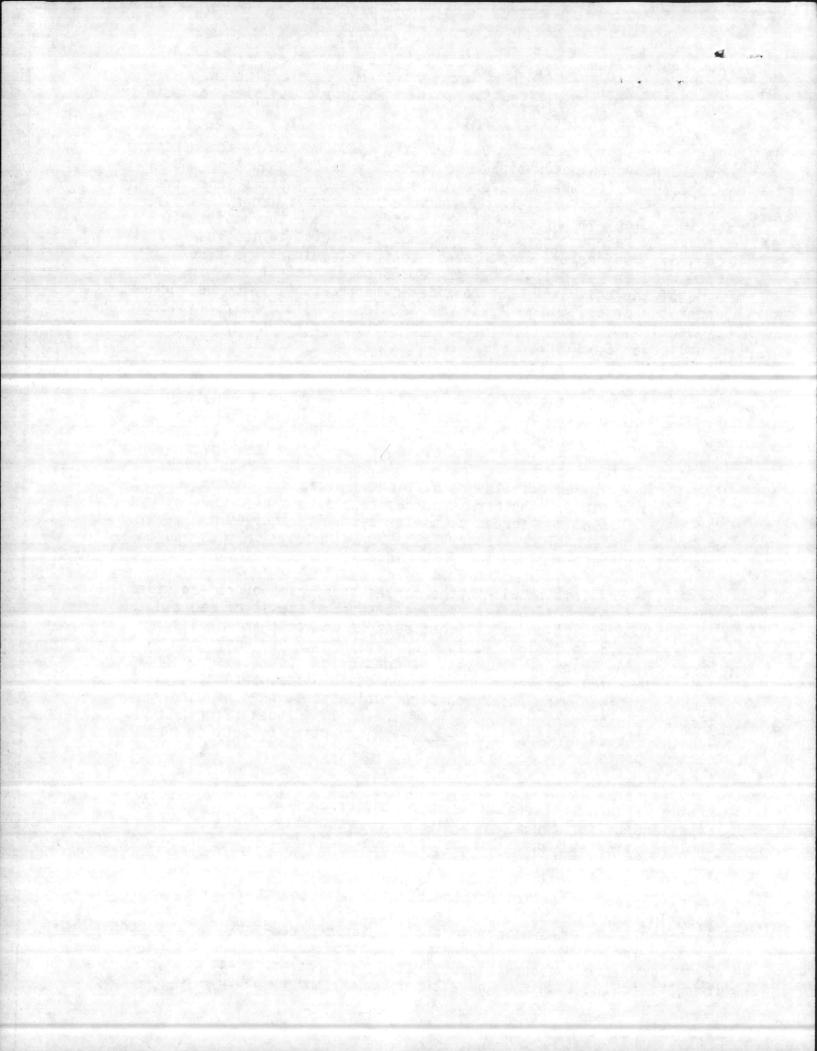
The impacts observed have the effect of destruction of the habitat of the red-cockaded woodpecker, including existing nesting and roosting cavity trees, future replacement cavity trees, and foraging trees. Other effects are more subtle but equally important. The whole ecology of the area is being affected, and the habitat is gradually being changed to a type not beneficial to the redcockaded woodpecker. Disturbance to the bird itself is also occurring and is detrimental to reproductive activities. In fact, some of the activities are considered harrassment, which is included under the definition of "take" in Section 3(14) and is prohibited by Section 9(a) (1) (b) of the Endangered Species Act of 1973 (Public Law 93-205).

There are two identified reasonable and prudent alternatives that would eliminate jeopardy to the species. One alternative is to select another site for a Mechanized Infantry Training Area that does not contain red-cockaded woodpeckers. The second alternative is to prepare guidelines for the use of the Mechanized Infantry Training Area, incorporate these guidelines as base regulations, and stringently enforce the regulations. Because of economics and the adverse impact on other resources from alternative one, alternative two was selected and agreed to as the best alternative in a meeting with base personnel on Japuary 11, 1979. These guidelines and/or regulations must include the following:

(1) Prohibition within the marked boundaries of red-cockaded woodpecker colonies, buffer zones and support stands of (a) all vehicle use except on established designated roads and trails (these should be designated in cooperation with the Base Natural Resources Division personnel); (b) cutting or destruction of woody vegetation; (c) excavation or disging of foxholes, trenches, garbage pits; laying underground communication lines; or other similar significant disturbance of the soil; (d) use of open burning including campfires; and (e) bivouacking or setting up command posts.

(2) Prohibition of all training, forestry activities, and similar activities creating a major disturbance within the colony sites and buffer zones, from March 1 through July 31. (This includes prohibition of firing from Gun Positions 3, 6, 10, and 21 during this time period.)

(3) Assignment of responsibility and accountability for. ensuring that the use of the Mechanized Infantry Training Area is compatible with the maintenance of designated red-cockaded woodpecker habitat (colonies, buffer zones, and support stands) and that the guidelines are prepared, incorporated into base regulations, brought to the attention of all personnel, and enforced.



(4) Daily inspection of each training area containing marked red-cockeded woodpecker habitat (colonies, buffer zones and support stands) during and after each training assignment and periodially at other times to determine if violations have occurred and corrective actions taken to include disciplinary action and prosecution under the Endangered Species Act, where warranted.

(5) Initiation of an information/education program with full, documented support of the entire Camp Lejeune Staff to effect a change of attitude among Base personnel concerning endangered species in general and the red-cockeded woodpecker in particular.

(6) Inspection at periodic (semi-annual) intervals by Fish and Wildlife Service personnel and recommendations made as to the effectiveness of the guidelines and regulations and corrective actions needed.

Please provide the Asheville Area Office with a copy of the guidelines when finalized and a copy of the resulting Base Regulations when promulgated. We would also like to be promptly informed of actions taken regarding violations.

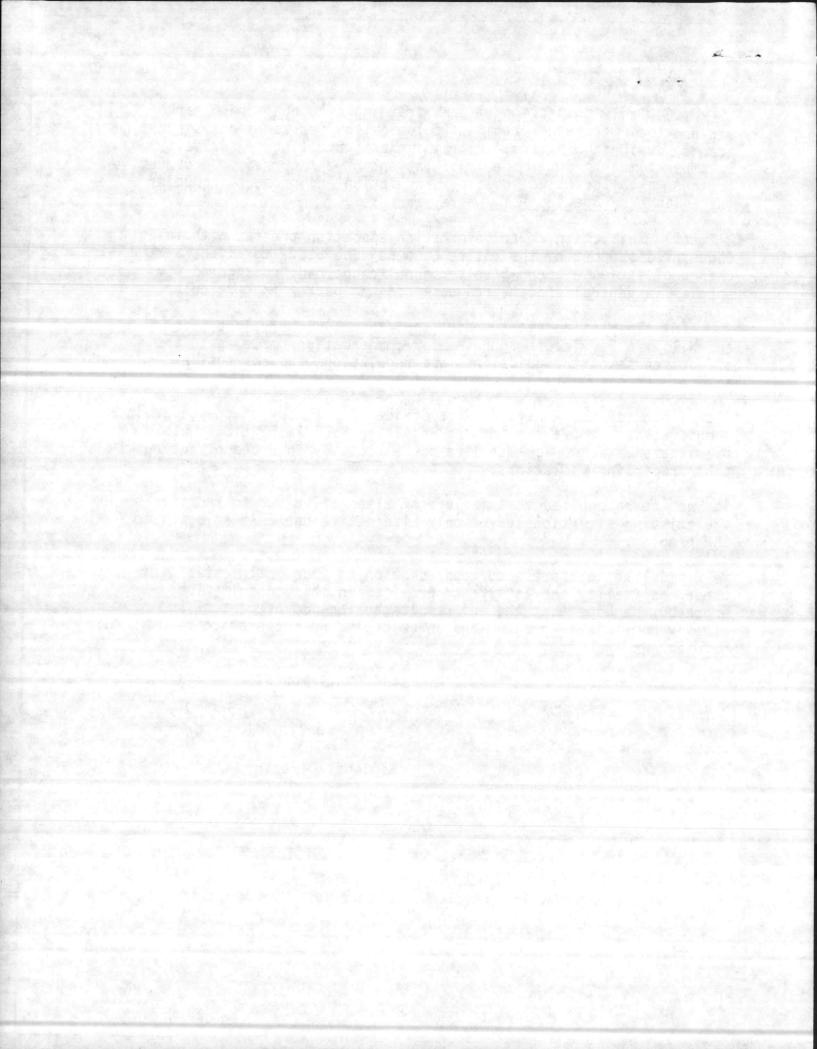
It must be recognized that failure of alternative two to rectify the existing situation leaves only alternative one as a solution to the problem.

We would like to express our appreciation to your entire staff for their hospitality and assistance provided in this consultation process. We hope that the end results are an improvement of an already commendable program and an amicable and cooperative relationship between our agencies.

Sincerely yours,

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Regional Director





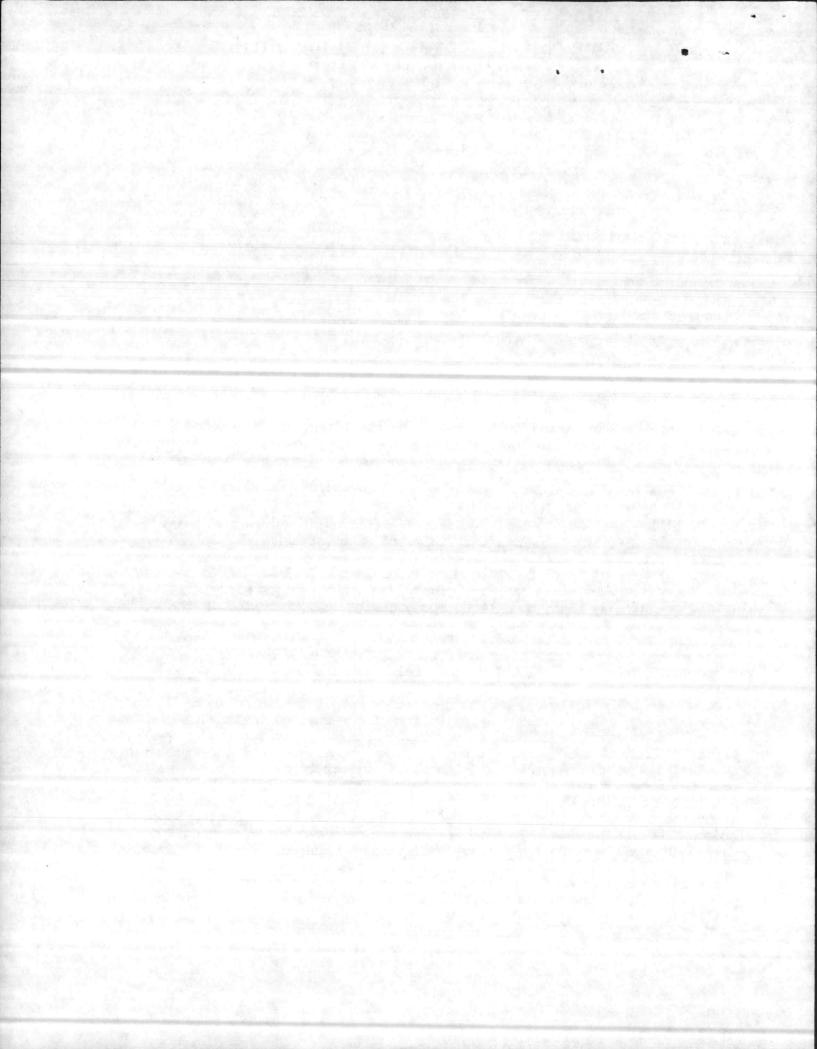
United States Department of the Interior FISH AND WILDLIFE SERVICE ENDANGERED SPECIES FIELD OFFICE PLATEAU BUILDING, ROOM A-5 50 SOUTH FRENCH BROAD AVENUE ASHEVILLE, NORTH CAROLINA 28801 February 3, 1984

Major General D. J. Fulham Commanding General United States Marine Corps Marine Corps Base Camp Lejeune, North Carolina 28542

RE: 4-2-78-384

Dear General Fulham:

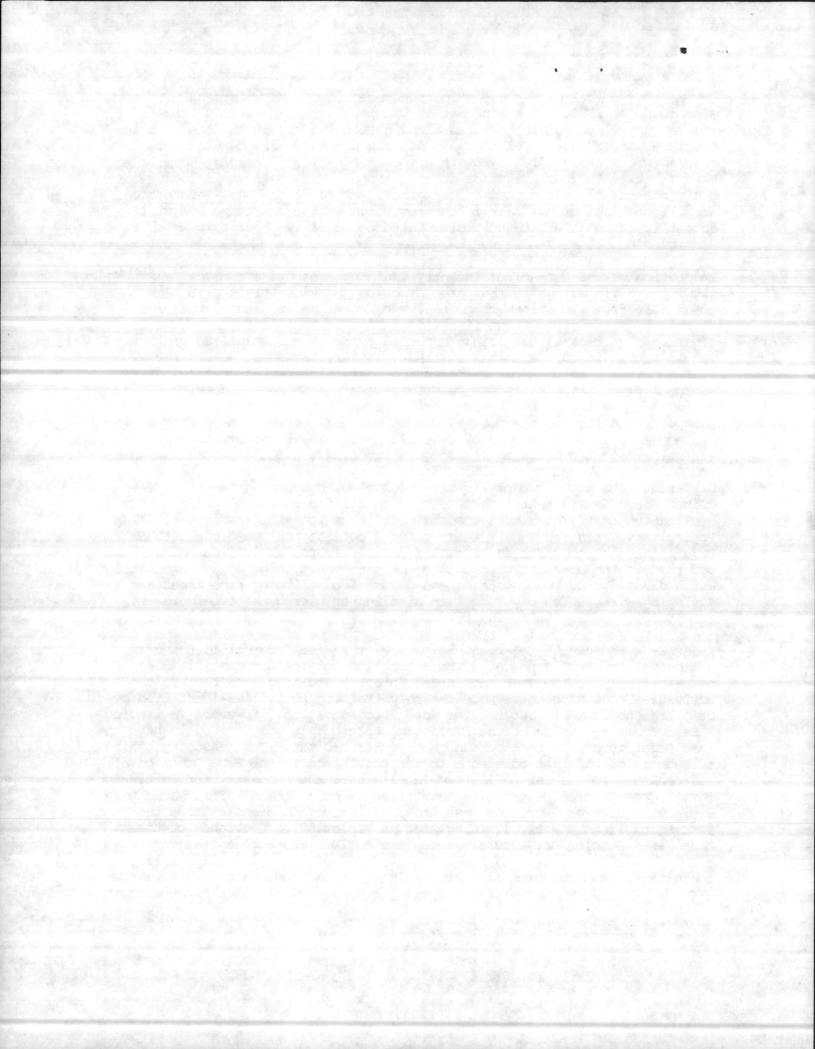
This letter is our report to you regarding our fifth periodic inspection of the Tank/Mechanized Infantry Training Area on Camp Lejeune regarding the effects of training activities on the endangered red-cockaded woodpecker (Picoides borealis) as specified in the Biological Opinion of June 12, 1979. The inspection was conducted by Gary Henry and John Fridell on December 13, 1983. Before the field inspection, Mr. Henry met with Colonel M. G. Lilley, Assistant Chief of Staff, Facilities; Lieutenent Colonel J. G. Fitzgerald, Assistant to Assistant Chief of Staff, Facilities; Julian Wooten, Director, Natural Resources and Environmental Affairs Division; and Charles Peterson, Wildlife Management Supervisor. Following this meeting Mr. Henry reviewed Final and Preliminary Violation Reports since his last visit of July 19, 1983, and, based upon this review, proceeded in the inspection of the Tank/Mechanized Infantry Training Area and other areas, accompanied by Mr. Wooten and Mr. Peterson. At the end of the inspection, a debriefing was held with Lieutenant Colonel Fitzgerald, Mr. Wooten, and Mr. Peterson. Mr. Henry followed up the visit with a phone call to Colonel Lilley on December 21, 1983, to review the inspection, discuss the procedures to be followed, and to request certain information to be forwarded by January 1, 1984. The information requested included a response to and information referenced in our September 20, 1983, letter, as well as Final Violation Reports from Number 12-83 to the present and the Preliminary Violation Reports concerning TLZ Penguin (three in total). A response to our September 20, 1983, letter was received January 16, 1984. This letter indicated that the Violation Reports since June 1983 would be sent under separate cover; no reference was made to the Preliminary Violation Reports concerning TLZ Penguin. To date we have not received the Violation Reports since June 1983 or the Preliminary Violation Reports concerning TLZ Penguin. There was some indication in the telephone conversation with Colonel Lilley of a reluctance to send the Preliminary Violation Reports concerning TLZ Penguin. This concerns me a great deal in light of the open and cooperative relationship that has existed between our agencies.



Our meeting prior to the inspection uncovered some disappointment with our September 20, 1983, letter in that it was perceived as overly critical. I assure you it was not intended as antagonistic but simply an attempt to be completely open in our relationship and lay all our cards on the table instead of diluting our viewpoints or positions by soft-soaping them or not bringing them to your attention at all. Nothing can be accomplished unless positions are clearly stated so everyone is aware of the same information. We will continue to be frank in our communication, and we hope you will accept it as constructive criticism in the cooperative spirit in which it was intended.

Inspection of the Mechanized Infantry Training Area did not reveal any significant violations in that area since our previous visit. There were apparently five violations completed by being signed off on at the Base since our last visit. These five, of course, include 12-83, which we did consider significant, but it had occurred prior to our July 1983 visit and was addressed in our September 20, 1983, letter. However, we did review Preliminary Violation Reports concerning activities in red-cockaded woodpecker habitat near TIZ Penguin that were significant and which we inspected. In fact, the impact from these activities on red-cockaded woodpecker habitat is the most severe of any activities we have observed since the Biological Opinion of June 12, 1979. The first Preliminary Violation Report concerning TLZ Penguin involved the act of establishing a command post without approval and designation by the Natural Resources Division. The other two preliminary violations concerning the site are quite disturbing in that they concerned actual damage to the habitat by utilization of the area as a command post, thus ignoring the initial Preliminary Violation Report which pointed out the non-conformance to Base Orders in using the site as a command post. Adverse activities which occurred in the area included cutting of pine trees, digging and excavation which damaged pine root systems, and damage from climbing pine trees and stringing wire, which may result in girdling or making the tree more susceptible to disease or insect damage.

An explanation of the relationship between the Base Order 11015.6 and the Biological Opinion is needed. The Biological Opinion of June 12, 1979, pertained only to the Tank/Mechanized Infantry Training Area because the activities occurring there were the only training activities identified by Camp Lejeune in their request for formal consultation. However, in issuing a Base Order to implement the Biological Opinion, it was decided to have the Base Order cover all red-cockaded woodpecker habitat. The reasoning behind this decision was that adherence to the provisions in the Base Order on all red-cockaded woodpecker habitat would eliminate the necessity for initiating formal consultation on training activities in other areas. This was a wise decision. However, when the Base Order is ignored on areas outside the Tank/Mechanized Infantry Training Area, a violation of Section 7 of the Endangered Species Act occurs because the activities represent a "may affect" situation regarding the red-cockaded woodpecker for which formal consultation has not been requested. This is a serious matter that we are

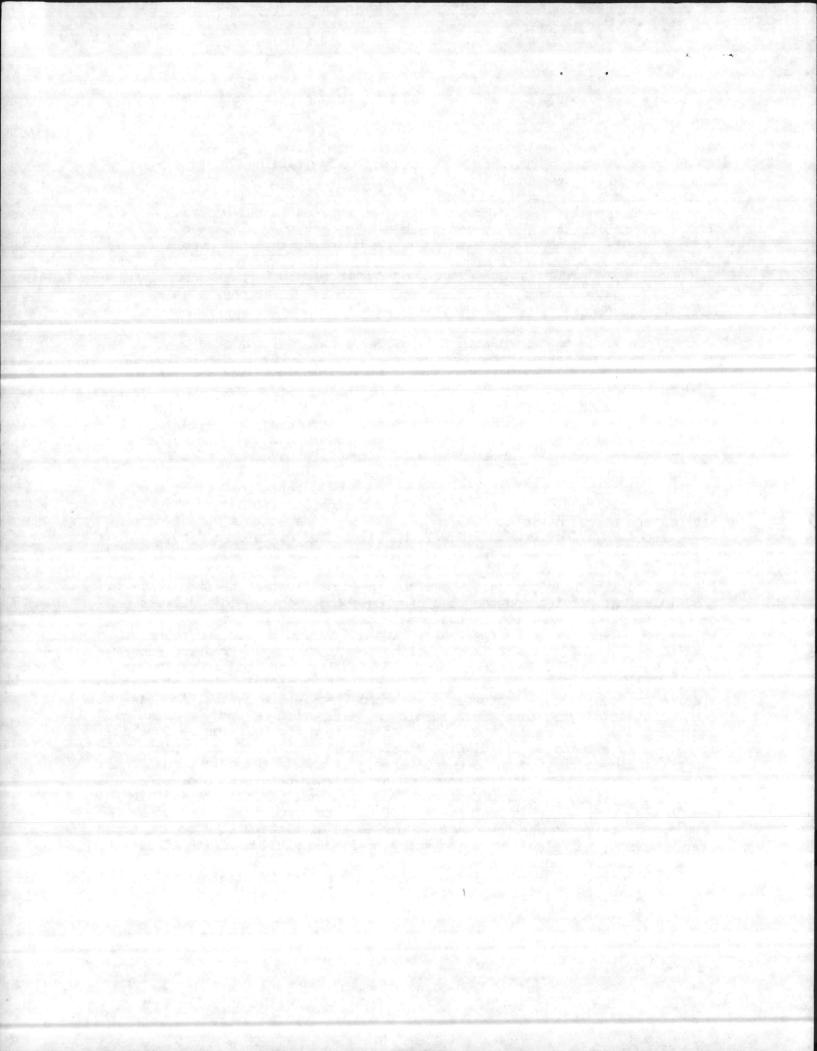


much concerned about and are forwarding it to higher administrative levels for review and possible action.

In a positive vein, we were very pleased with the attempts to address some of the past violations in the Mechanized Infantry Training Area and our concerns regarding the violations. The barricades installed at areas of past violations to prevent continuing misuse and the proposed new signs with more direct language regarding prohibited activities in red-cockaded woodpecker habitat are highly commendable. In fact, the different perceptions regarding our September 20, 1983, letter as being overly critical may be a result of timing in that violations were observed in our last inspection but we were not aware of forthcoming efforts, such as barricades and new signs, to address some of these violations and our resulting concerns.

We continue to be concerned with the follow-up and actions taken on violations as indicated in our September 20, 1983, letter. The Biological Opinion provides for periodic inspection by the U.S. Fish and Wildlife Service, and this task has been assigned to this office. The Opinion states that "Inspections will determine if significant violations have occurred and ensure that proper actions have been taken to correct any violations." We cannot possibly determine if proper actions have been taken when we cannot obtain information as to what actions were taken. Therefore, this is the second issue that we are elevating to higher administrative levels for review and action. Until obligations to provide information on actions taken are fulfilled, we cannot fulfill our obligations to ensure that proper actions are taken on violations, and, therefore, inspections by our office are limited in effectiveness and will be eliminated or relegated to low priority.

Discussions with Base personnel resulted in identification of some items in the Biological Opinion and the resulting Base Order that need modification or clarification. One item is the prohibition against cutting of woody vegetation. This seems overly restrictive and should be revised to prohibit cutting of pine of any size from seedling to maturity. The red-cockaded woodpecker is largely dependent on pine for shelter and food. Cutting of other species of woody vegetation may actually be beneficial in that the species prefers open understories. A second item is the prohibition against excavating or digging that would result in destruction of woody vegetation, including damage to root systems. This also seems too restrictive in that it virtually eliminates all digging because root systems of some species of plant are almost certain to be encountered. It should be revised to prohibit excavation or digging that would result in destruction of pine trees of any size, including damage to root systems. In this regard, it should also indicate that root systems of pine trees generally encompass the area immediately beneath the crown. Therefore, digging outside of the crown of pine trees that also does not destroy or in jure small seedling pines would not be detrimental. These two items for proposed change will be forwarded to the Washington Office, which rendered the Biological Opinion of June 12, 1979, for review and action.



Items concerning the Base Order that we are requesting Camp Lejeune to address are as follows. The authorization for movement/introduction of wheeled vehicles in the contiguous habitat needs to be revised to authorize this activity only in the immediate vicinity of bivouac and preselected command posts as per the Biological Opinion. The Base Order lists eight actions that violate guidelines for managing red-cockaded woodpeckers and their habitat. One of the eight actions listed was "Damaging pines, including cavity trees, by climbing trees to implace wire, tree top antennas, etc." However, the prohibited actions set forth in the Base Order do not address this item. We request that this oversight be corrected.

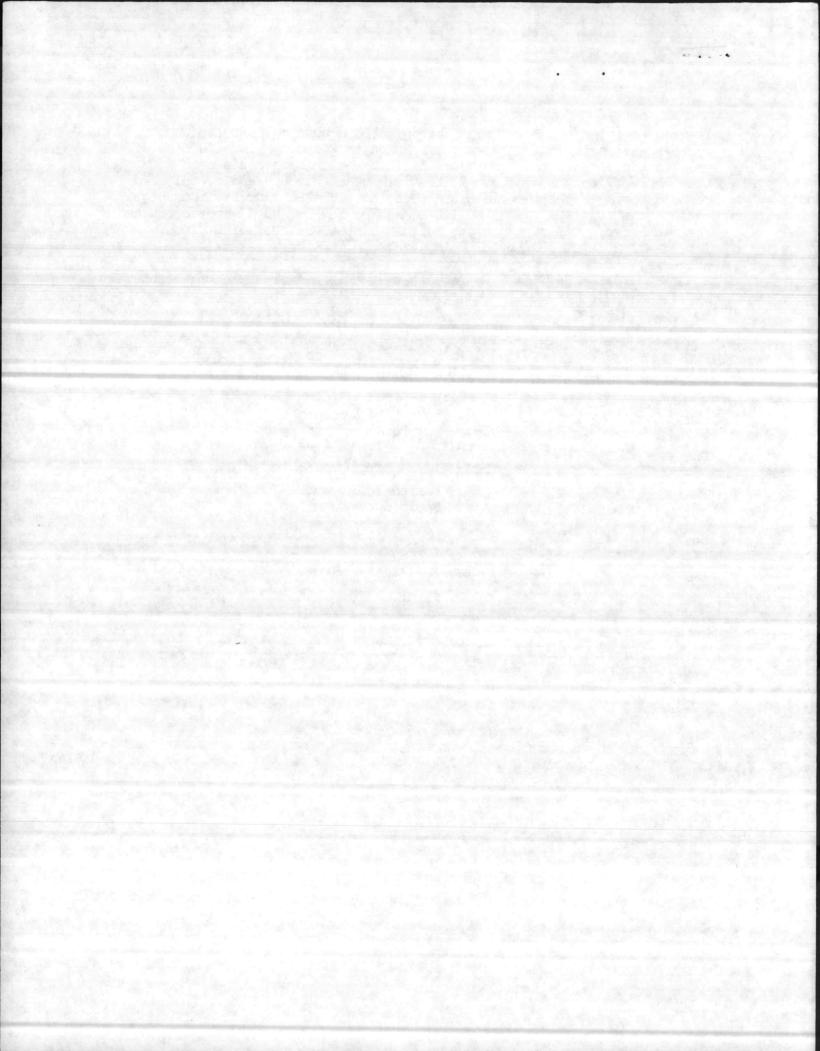
We appreciate the cooperation of Base personnel in carrying out the inspections. Response concerning proposed revision of the Base Order and request for Final and Preliminary Violation Reports addressed in this letter are requested. We will advise you concerning any actions taken on the items forwarded to higher administrative levels for review and action.

Sincerely,

Warren T. Parker Field Supervisor

cc:

Director, FWS, Washington, DC (AFA/OES) Regional Director, FWS, Atlanta, GA (ARD-FA/SE)



United States Department of the Interior

FISH AND WILDLIFE SERVICE ENDANGERED SPECIES FIELD OFFICE PLATEAU BUILDING, ROOM A-5 50 SOUTH FRENCH BROAD AVENUE ASHEVILLE, NORTH CAROLINA 28801 September 20, 1983

Major General D. J. Fulham Commanding General United States Marine Corps Marine Corps Base Camp Lejeune, North Carolina 28542

ATTENTION: Colonel T. M. Stokes, Jr., Chief of Staff

Dear General Fulham:

RE: 4-2-78-384

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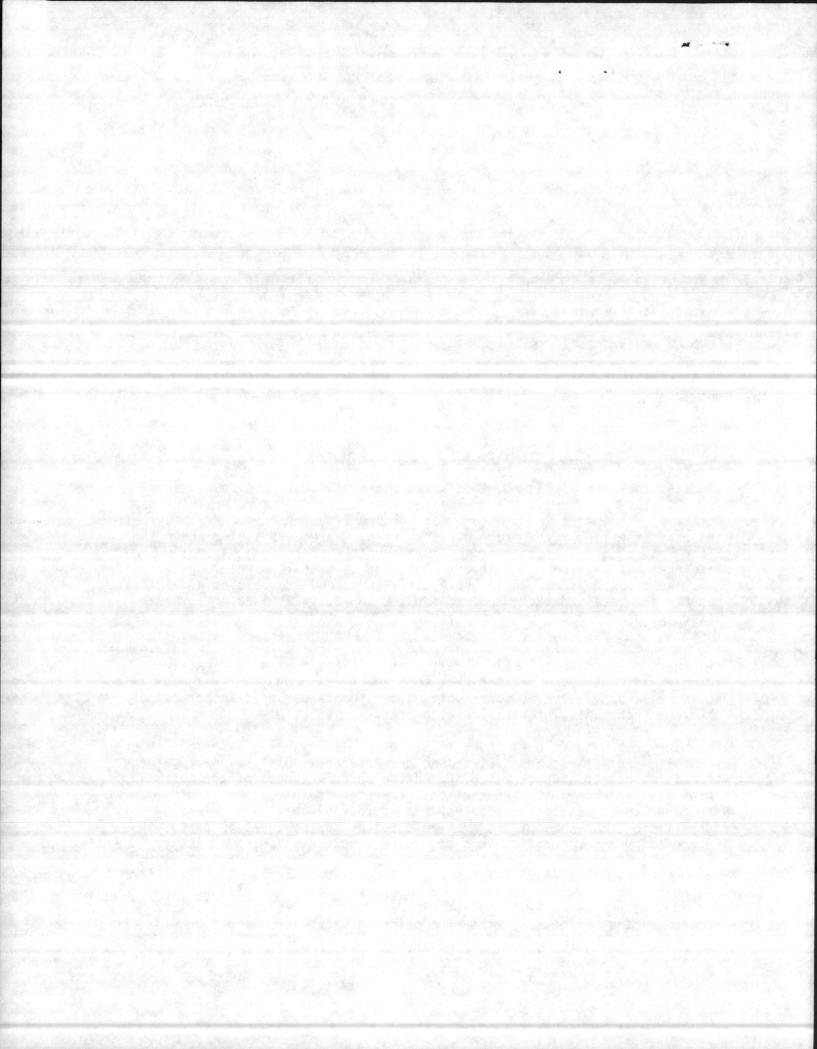
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This pertains to Mr. Gary Henry's visit to Camp Lejeune of July 18 and 19, 1983, at the Base's request, to discuss the Biological Opinion rendered June 12, 1979, regarding the endangered red-cockaded woodpecker (Picoides borealis) within the Tank/Mechanized Infantry Training Area. Mr. Henry also inspected the Tank/Mechanized Infantry Training Area, as specified in the Biological Opinion, accompanied by Julian Wooten, Director, Natural Resources and Environmental Affairs Division, and Charles Peterson, Wildlife Management Supervisor. While there, Mr. Henry requested copies of violation reports and received these reports for 1982 on July 27, 1983. Mr. Henry later (August 5, 1983) requested violation reports for 1981, and these were received September 7, 1983. In addition, Mr. Henry observed a recent. violation (12-83) that was not included in the reports received. This was a serious violation that involved extensive excavation of approximately 20 foxholes in contiguous habitat next to a colony site and buffer zone. This letter will also serve as our report on our fourth periodic inspection of the Tank/Mechanized Infantry Training Area.

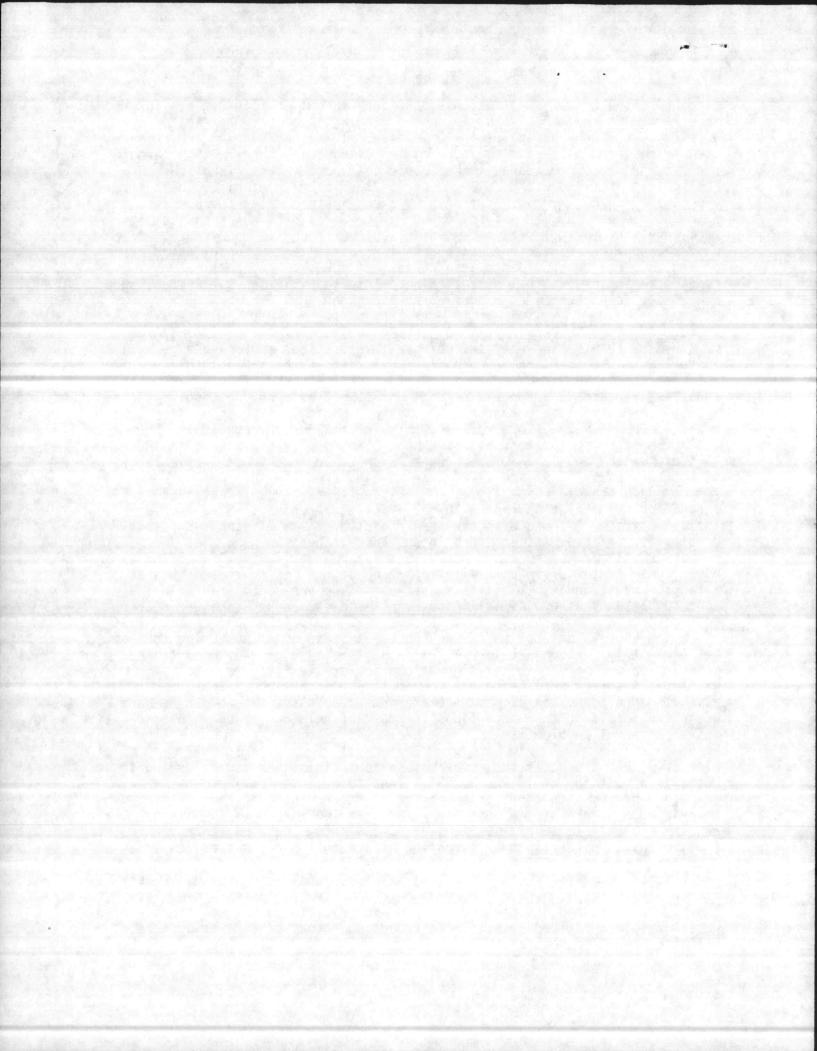
Mr. Henry met with Colonel Stokes; Colonel J. T. Marshall, Assistant Chief of Staff, Facilities; Mr. Wooten; and Mr. Peterson. Discussions regarding the Biological Opinion centered around the perceived need of the Marine Corps Base to modify the restrictions regarding training. Mr. Henry explained the consultation process, the history of this particular consultation, and the options available to the Marine Corps to pursue in regard to proposed modifications of the restrictions imposed in the Biological Opinion. Most of this was covered in a letter to Lieutenant Colonel R. F. Calta, Base Maintenance Officer, on September 30, 1982, in response to an earlier request along these same lines and will not be repeated here. The only thing not discussed in the September 30, 1982, letter was the National Security Exemption provided for by Section 7(j) of the Endangered Species Act of 1973, as amended, which was the option recommended for pursual by the Marine Corps Base. This exemption requires a



finding by the Secretary of Defense that such exemption is necessary for reasons of national security. If such a finding is made, an exemption is granted by the Endangered Species Committee. If such a finding is not made, the Marine Corps Base still has the option of pursuing an exemption through the regular process based on irresolvable conflicts. This exemption application is filed with the Secretary of the Interior within 90 days after the completion of the consultation. However, in this case, the 90-day deadline may possibly be waived if the Marine Corps Base can show that it made an effort to implement the opinion, but has found it unworkable. If a waiver cannot be granted, we can pursue a reinitiation of consultation based on new information provided by the Marine Corps Base, which was not considered in the original consultation. This reinitiation will establish a new 90-day deadline for an exemption application.

In regard to the inspection of the Tank/Mechanized Infantry Training Area, we would reiterate what was stated in past inspections regarding a general improvement in comparison to conditions existing at the time of the consultation in 1979. However, in terms of violations, a stabilization at about two violations per month beginning in 1981 seems evident, following an initial improvement to only one violation per month in 1980. Our inspection report on January 27, 1982, reviewed this information through 1981. The violation reports sent to us for 1982 and 1983 show 19 violations in 1982 (1.6 per month) and 11 in 1983 through June (1.8 per month). Incidentally. violation reports 15-82 and 17-82 were missing from the information sent us. A memo and photos for violation 17-82 was sent but they were attached to a second copy of violation report 16-82. Violation report 15-82 was missing in its entirety. We would appreciate receipt of these missing reports to complete our files. As mentioned in our last inspection report of January 27, 1982, we are concerned with this trend of initial reduction in violations and temporary stabilization at about one per month and then an increase and secondary stabilization at about two per month. This indicates some complacency after initial improvement, and you should consider attempts to remove this complacency. In this regard, I would like to recommend that violation reports be sent us as they occur, instead of us obtaining them at the time of inspection. This will allow us to stay closer attuned to what is going on and perhaps offer suggestions and/or alert you to possible problems at an early stage before they multiply into larger problems. It will also provide us information before inspections so that we can perhaps be more specific in our inspections in hopes of helping you pinpoint and solve potential problems.

Also of concern to us is the number of serious violations now occurring in comparison to those of 1980 and 1981. Instead of just infringement by tracked vehicles into contiguous habitat or other minor violations, many of the violations were within the colony sites and buffer zones (violation reports 4-82, 7-82, 16-82, 19-82, 1-83, 3-83, 4-83, and 7-83) and/or were substantial in nature such as extensive excavations for foxholes, etc. (violation reports 2-82, 8-83, 9-83, and 12-83) or obviously deliberate, premeditated violations (14-82). This also reflects a complacency or lack of adequate disciplinary actions as a deterrent and indicates a need for improvement. Indeed, if the regulations and education-information program were working as desired, a continued reduction in number and seriousness of violations would be evident.



As pointed out in past inspection reports, the follow-up and actions taken on violations seem to be lacking or inadequate as a deterrent to prevent future violations. The violation reports for 1982 and 1983 do not reference corrective actions taken, and in the past, information received on actions taken on violations were not specific or, when specific, actions were informative or educational in nature. As indicated in our last inspection report, disciplinary action seems warranted in many cases, and especially where actions were deliberate violations such as violation 14-82. I realize that it may be difficult at times to determine the exact person or persons responsible for violations when the violations are found after the fact. However, many of the violations were obviously found at the time they were occurring as evidenced by the photos (violation reports 3-82, 5-82, 6-83, and 11-83). In these cases, it should be a simple matter to assign responsibility and take disciplinary action. Such disciplinary action would likely be a deterrent to future violations as the word spread that violations were not being tolerated. We are still desirous of obtaining information regarding actions taken on violations. Our inspection report of January 4, 1980, specifically requested a response in this regard from the Commanding General of the 2nd Marine Division. We received no response to this request and, to date, have no indication that disciplinary action has ever been taken in regard to any of the 91 violations occurring to date. In our opinion, we can expect no further improvement in reduction in number or seriousness of violations until the Marine Corps takes the matter seriously enough to discipline violators when the violations are serious and/or deliberate.

We appreciate the cooperation extended us in these matters. If we can be of further help, please advise.

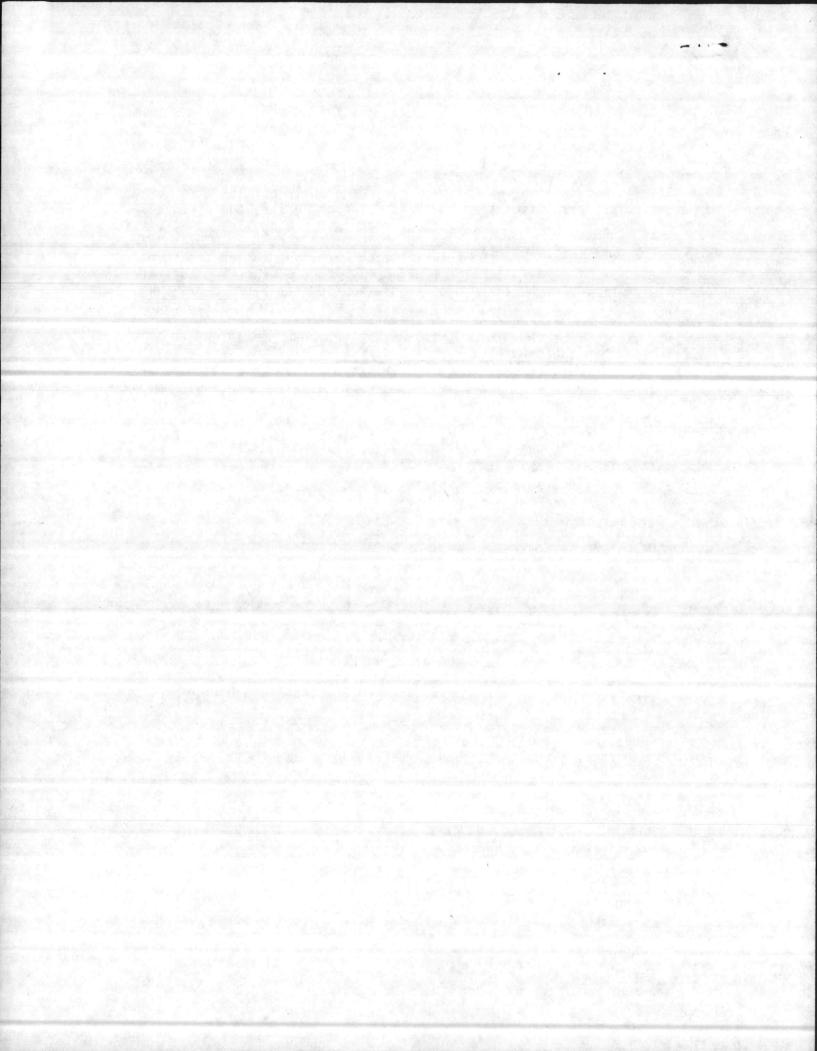
Sincerely yours,

Warren T. Parker Field Supervisor Endangered Species Field Office

cc:

Director, FWS, Washington, DC (AFA/OES) Regional Director, FWS, Atlanta, GA (ARD-FA/SE)

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United States Department of the In rior

FISH AND WILDLIFE SERVICE PLATEAU BUILDING, ROOM A-5 50 SOUTH FRENCH BROAD AVENUE ASHEVILLE, NORTH CAROLINA 28801

September 30, 1982

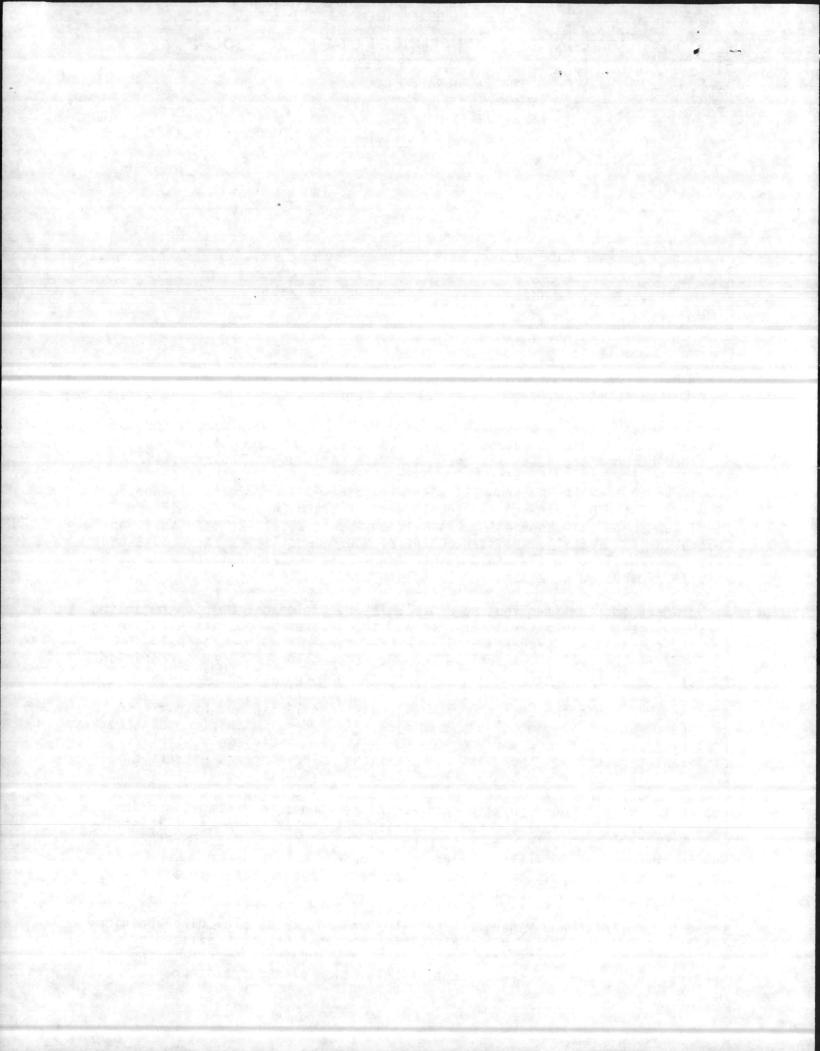
R. F. Calta, Ligutenant Colonel, U.S. Marine Corps Base Maintenance Officer United States Marine Corps Marine Corps Base Camp Lejeune, NC 28542

Re: 4-2-78-384

Dear Colonel Calta:

This responds to your correspondence of July 27, 1982. Mr. Gary Henry visited Camp Lejeune on August 24 - 25, 1982, at which time he reviewed the proposed changes and discussed them with Base personnel. The areas of concern were reviewed on site by Mr. Henry, accompanied by yourself; Lieutenant Colonel A. R. Brunelli, Jr., Training Officer; Julian I. Wooten, Director of the Department of Natural Resources; and Charles D. Peterson, Wildlife Manager. A debriefing was held on August 25, 1982, that included Colonel J. T. Marshall, Assistant Chief of Staff, Facilities, as well as the personnel involved in the field inspection. This letter will summarize the results of these discussions.

The primary concern involved the June 18, 1979, Biological Opinion regarding the Mechanized Infantry Training Area and the habitat boundaries established for :ed-cockaded woodpeckers within the training area. The original consultation regarding the area was conducted by this office and an opinion rendered February 1, 1979. Consultation was then reinitiated and a consultation team appointed to conduct the consultation. This team was composed of Washington Office personnel and Regional Fish and Wildlife Service personnel from outside this office. As a result, this consultation probably received a more thorough review by several individuals with different perspectives then most consultations. The concerns expressed August 24-26, 1982, were thoroughly considered during the previous consultation. There is no new knowledge regarding the biology of the red-cockaded that would justify changes in the boundaries established for support stands. In reality, the boundaries designated are not sufficient by themselves to support the present colonies. The Recovery Plan for the species recommends 200-acre support stands based on average home ranges of the species. Obviously, the clans in the Mechanized Infantry Training Area are utilizing more habitat than is present in the designated support stands. However, it was thought that if the habitat within the designated boundaries could be protected and managed as per the June 18, 1979, Biological Opinion, impacts from training and other activities on other habitat utilized by these birds could be tolerated without an overall adverse impact to the species. Therefore, we cannot support relocation of support stand

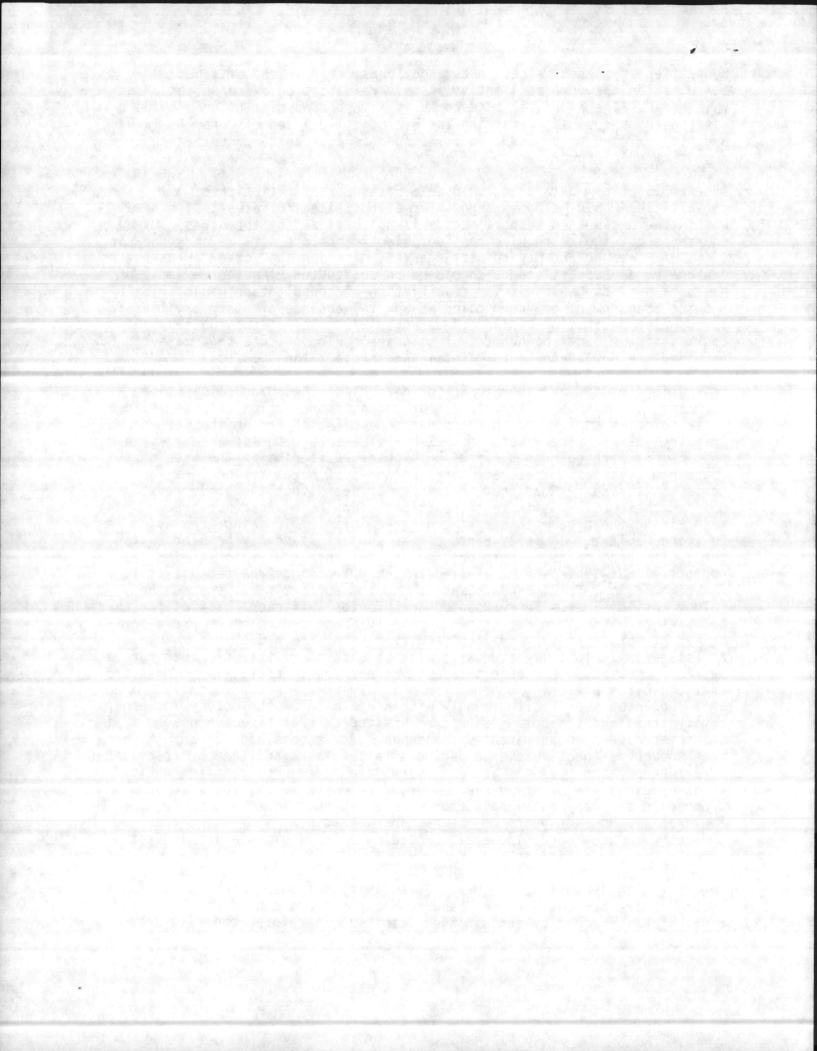


boundaries at present since no data not considered in the original consultation has come to light to justify reinitiation of consultation on this basis. Therefore, this response is intended as part of continuing discussions and dialog regarding the Biological Opinion of June 18, 1979, and its implementation and is not intended as a separate consultation or a reinitiation of formal consultation.

An example of new data that could be a basis for reinitiation of consultation would be home range information which indicates that habitat within the designated support stands is not utilized by the birds. Of course, such studies require considerable expenditure of time and money in terms of manpower and may result in a determination that other areas not now designated as support stands should be so designated. Another example of new data providing a basis for reinitiation of consultation would be data showing abandonment of known colonies and the absence of other cavities in surrounding habitat within foraging range (2/3 mile) of the species. Of course, significant abandonment of colonies could indicate that measures now provided are not adequate to maintain and protect the species.

This brings us to the other topic for discussion regarding eliminating boundaries, and thus, restrictions, around abandoned colonies. We reviewed three colonies thought to be abandoned, one of which was in the Mechanized Infantry Training Area, north of TLZ Hawk. Although the cavity trees in this colony were abandoned, birds were observed feeding in the area of the abandoned cavities. There are three colonies of birds to the east just across Sneads Ferry Road from the site. It seems that the birds have shifted their colony site to the east of Sneads Ferry Road but are maintaining the area within the Mechanized Infantry Training-Area as foraging habitat. In fact, parts of the support stand may be used by the three different clans. Therefore, boundaries should stay intact for the support stand within the Mechanized Infantry Training Area because it is foraging habitat for 1-3 clans and it and the support stand around the colony east of Sneads Ferry Road do not provide sufficient habitat for three colonies of birds. The other two seemingly abandoned colonies are a. different matter as they are isolated from other known colonies. The colony at Verona is in loblolly pine with a dense understory that has been reduced by recent cutting. Although the cavity trees are inactive, it is possible that the birds are using other unknown cavity trees in the vicinity. The area should be searched thoroughly within 2/3 mile of the colony for other cavity trees and the colony should be visited several times to assure that the trees have been permanently abandoned. It is possible for an active tree to become inactive over a period of a few weeks and then be reactivated a few weeks later. If the above measures are taken and no active cavity trees or birds are observed over a period of three years, the site should be dropped as a colony site and support stand. Discussions at Camp Lejeune centered around five years of observation for assurance of abandonment but contact with knowledgeable people regarding this recommendation indicates three years as sufficient.

The last site is west of TLZ Owl. No activity has been observed for five years or more and Base Nature Resource personnel are confident that other cavity trees are not present in the vicinity. Therefore, the site should be dropped as a colony site and support stand.

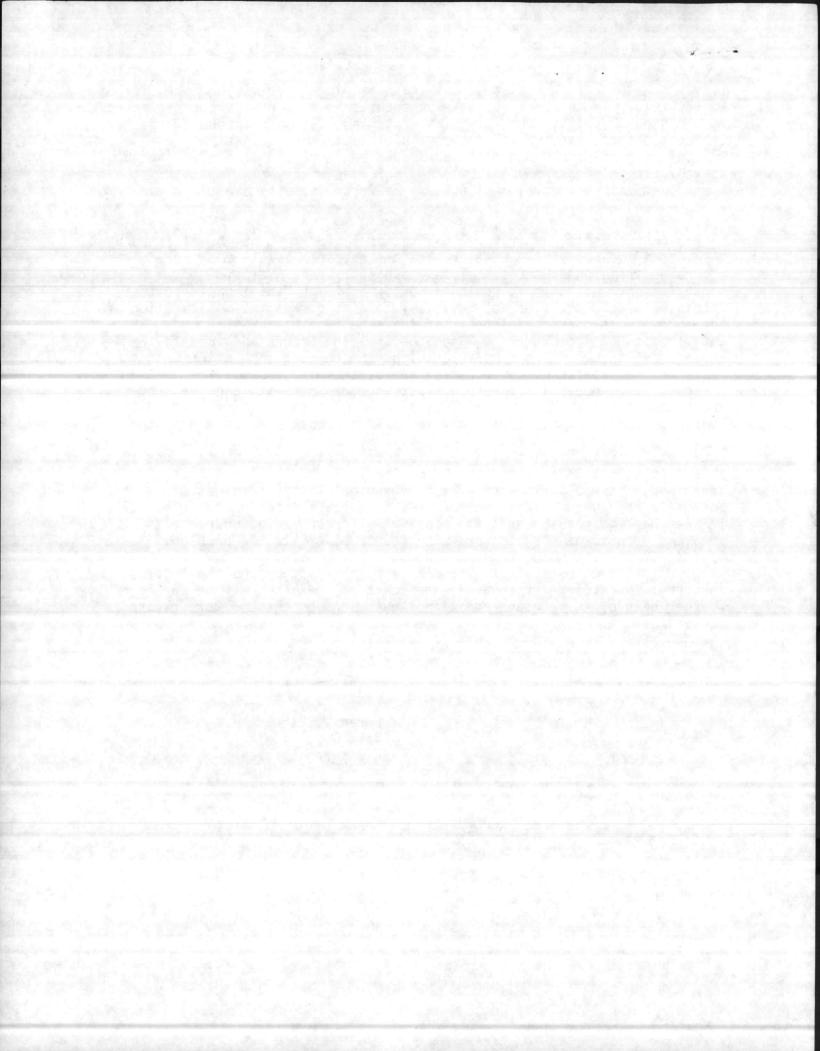


It was mentioned in our discussions that training needs may be intensified in the future in terms of quantity (increases in number of troops training in the area) and equipment (new, faster tanks). If this intensity of training materializes, a basis for reinitiation of consultation may result. Reinitiation of formal consultation should be requested if one of the three following provisions are met: (1) new information reveals impacts of the identified activity (training) that may affect listed species in a manner or to an extent not previously considered, (2) the identified activity is subsequently modified in a manner not considered in the biological opinion or (3) a new species or critical habitat is listed that may be affected by the identified activity. However, it does not seem likely that more intensive training of the same type would justify reinitiation of consultation. Although it would be new information, the impacts to the species would be the same as previously considered and the modification of the activity is only an intensity of the same type of training, not modification of the manner in which the training occurs and impacts the species. Although we do sympathize with your concern in meeting both the needs of the red-cockaded woodpecker and of training troops, the consultation process is concerned first and foremost with the needs of the species. We do attempt to arrive at alternatives that do both but if it cannot be done, or if the alternatives are not considered viable by the Federal agency, an exemption process is provided to rule on irresolvable conflicts. If you feel that this situation exists regarding the June 18, 1979, Biological Opinion for the Mechanized Infantry Training Area, I recommend that you pursue the exemption route. The process was provided because a need was anticipated and it should be utilized where applicable. If meeting time requirements for qualifying for an exemption presents a problem, we will be glad to work with you to alleviate the problem.

I appreciate the cooperation extended us in this matter and the interest and concern in providing for endangered species on the Base. If we can be of further help or if you have additional questions on this matter, please contact us.

Sincerely yours,

Warren T. Parker Field Supervisor Endangered Species



HAIN/JIW/spk 11015 JUL 2 7 1982

Hr. William Nickling Asheville Area Office U. S. Fish and Wildlife Service Flateau Suilding South French Broad Avenue Asheville, North Carolina 18801

Dear Sir:

In accordance with a phone conversation on 21 July 1982 between Mr. Gary Henry of your staff and Mr. Julian Wooten, Natural Resources and Environmental Affairs, Base Maintenance Division, Marine Corps Base, Camp Lejeune, this letter is to request informal consultation relative to red cockaded woodpecker management and military training aboard base.

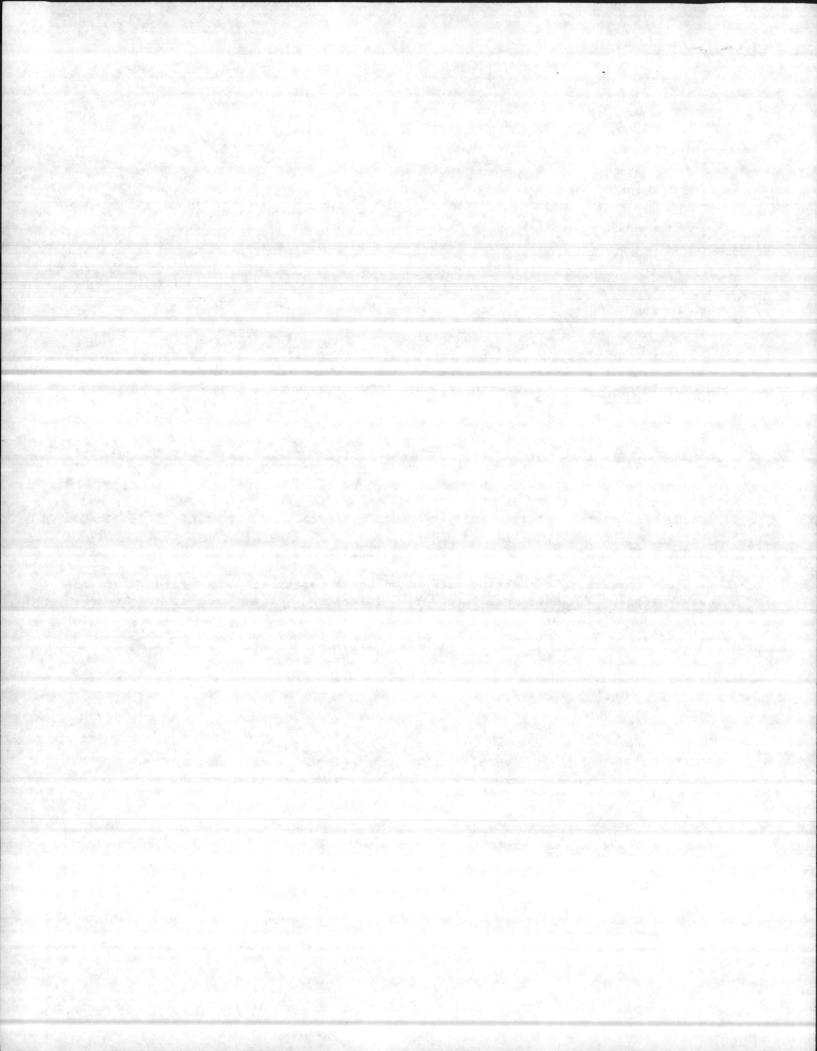
Natural Resources personnel desire to discuss the present red cockaded woodpecker habitat boundaries established by the Biological Opinion issued on 18 June 1979 by your agency under the Endangered Species Act of 1973. There appears to be several boundary lines in the Mechanized Infantry Training Area that could be relocated to allow for track vehicle movement off established trails, thereby allowing more realistic training without significant impact on the red cockaded woodpecker. Additionally, one woodpecker site no longer appears to be active thus the possibility of eliminating restrictions.

We look forward to consulting with you in this matter at your earliest possible convenience. If additional information is desired, please contact Hr. Wooten (FTS) 676-5003/2195.

Sincerely,

R. P. CALTA Lieutenant: Colonel, U. S. Marine Corps Base Maintenance Officer By direction of the Commanding General

BCC: AC/S Facilities





United States Department of the Interior

FISH AND WILDLIFE SERVICE PLATEAU BUILDING, ROOM A-5 50 SOUTH FRENCH BROAD AVENUE ASHEVILLE, NORTH CAROLINA 28801

March 11, 1982

Major General C. G. Cooper Commanding General U.S. Marine Corps Camp Lejeune, NC 28542

Re: 4-2-78-F-384

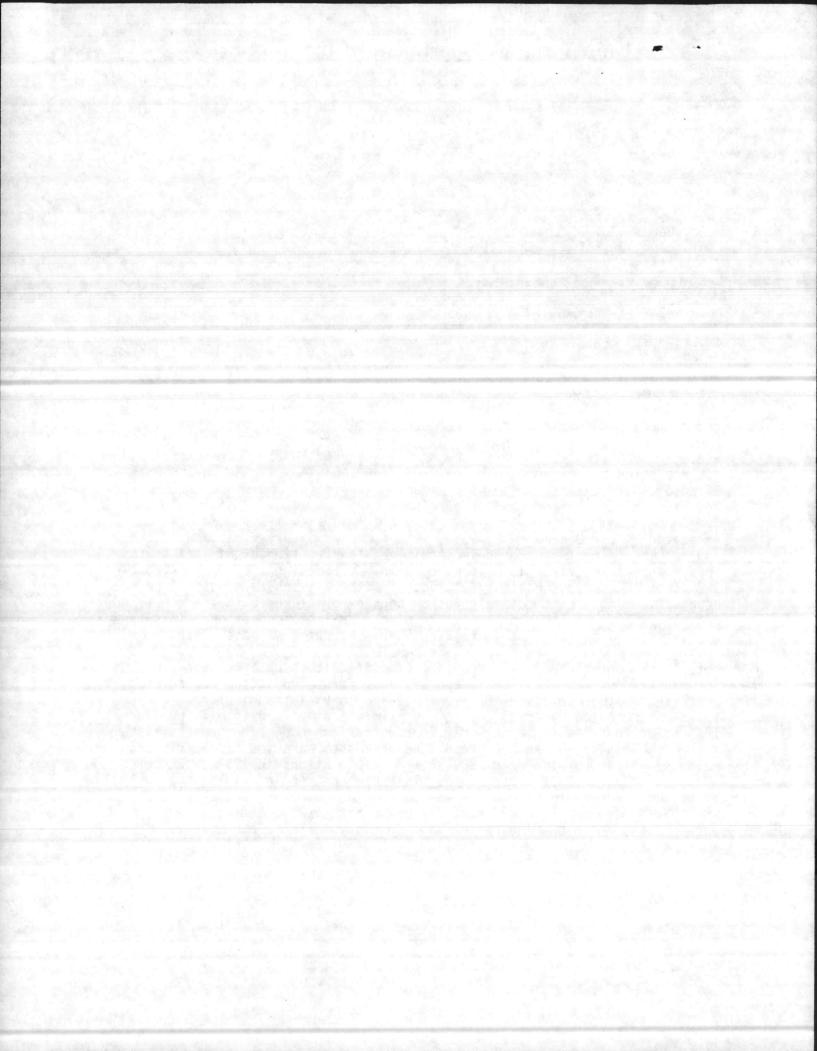
Dear General Cooper:

This letter is our report to you regarding our third periodic inspection of the Tank/Mechanized Infantry Training Area on Camp Lejeune as specified in the Biological Opinion of June 12, 1979, regarding the endangered red-cockaded woodpecker and the effects of training activities upon the species. This is a follow-up to our letter of December 22, 1981, requesting violation reports, which were forwarded January 6, 1982. This inspection was conducted by Warren Parker and Gary Henry, accompanied by Julian Wooten, Director, Natural Resources and Environmental Affairs Division, and Charles Peterson, Wildlife Management Supervisor.

As stated in our December 22, 1981, letter, we were very pleased with the obvious improvement regarding indiscriminate destruction of habitat in the area. This improvement is evident by simply traversing the area by vehicle and comparing present habitat destruction with that habitat destruction so apparent during and immediately following the formal consultation concluded June 12, 1979. It has been two years since our last inspection. This lapse of time has allowed the habitat to recover somewhat from past impacts.

Actual documentation of this recovery is difficult to obtain. One source of documentation is the violation reports. Our first inspection following rendering of the Biological Opinion revealed 16 violations during a three-month period, averaging over five violations per month. In our second inspection four months later, only four violations had been recorded since the first inspection, an average of one per month. Review of the violation reports sent us for 1980 and 1981 showed 16 violations in 1980, 1.25 per month; and 25 in 1981, 2 per month. This upward trend of violations in 1981 is of some concern to us. While we realize that other things are involved and that an evaluation based strictly on numbers is not entirely appropriate, it is one indication that possibly there is a need for additional measures or more attention to present measures for reducing or eliminating habitat destruction.

In referencing specific violations, we have attached a copy of Violation Report #18-81. Violation 18-81 is viewed as a case that demonstrates a lack of concern on the part of user personnel because the commanding officer ignored the knowledge given to him that certain areas were restricted and instructed his men to enter the restricted areas anyway.



The actions taken on violations were usually not specific and only referenced the fact that corrective action was taken. In those cases offering more specifics, the actions taken were of a informative and educational nature only and no cases of disciplinary action were ebvieus. We did not receive the response and/or action taken on violations 5 through 9 and 23 through 26 for 1981.

In summary, an improvement regarding indiscriminate habitat destruction in the Tank/Mechanized Infantry Training area is visually obvious. However, a recent trend of increasing violations, although minor in nature, is a matter that should be given some thought in terms of the possible need for additional measures or more attention to present measures to reduce habitat destruction.

We appreciate the cooperation extended us in this inspection. If we can be of further help in this or other matters, please let us know.

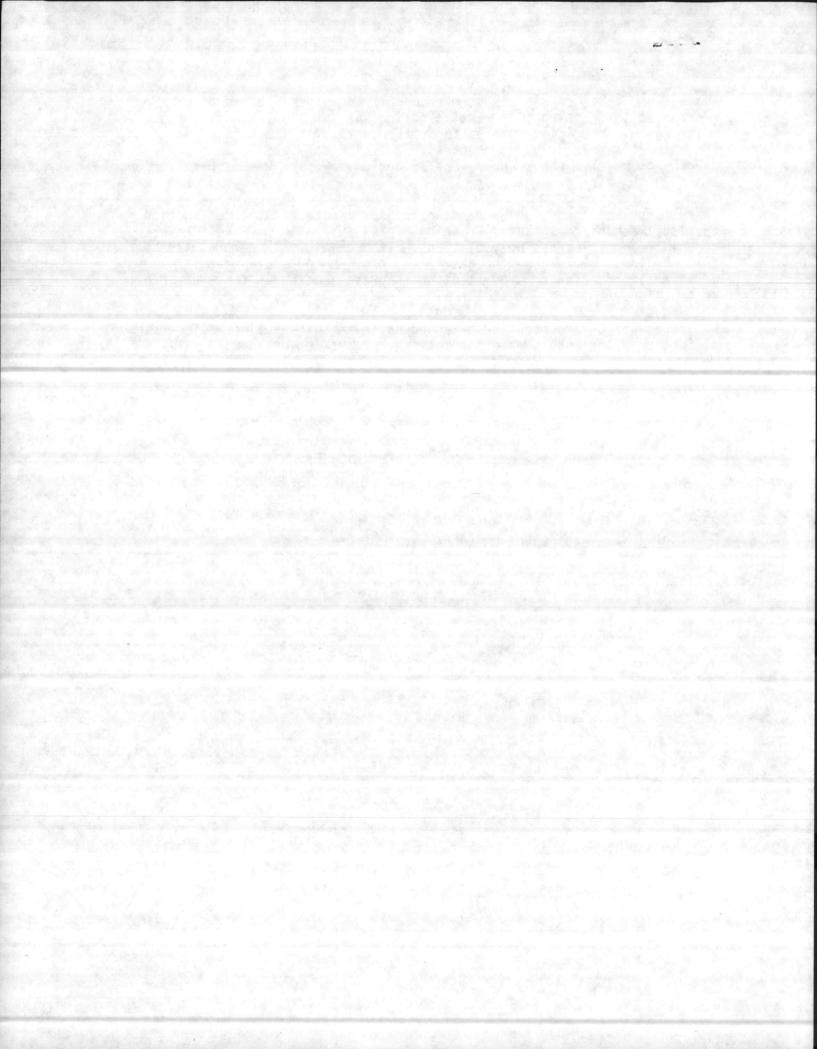
Sincerely yours,

Fandly . Carrell L. Ryan

Carrell L. Ryan Grea Manager

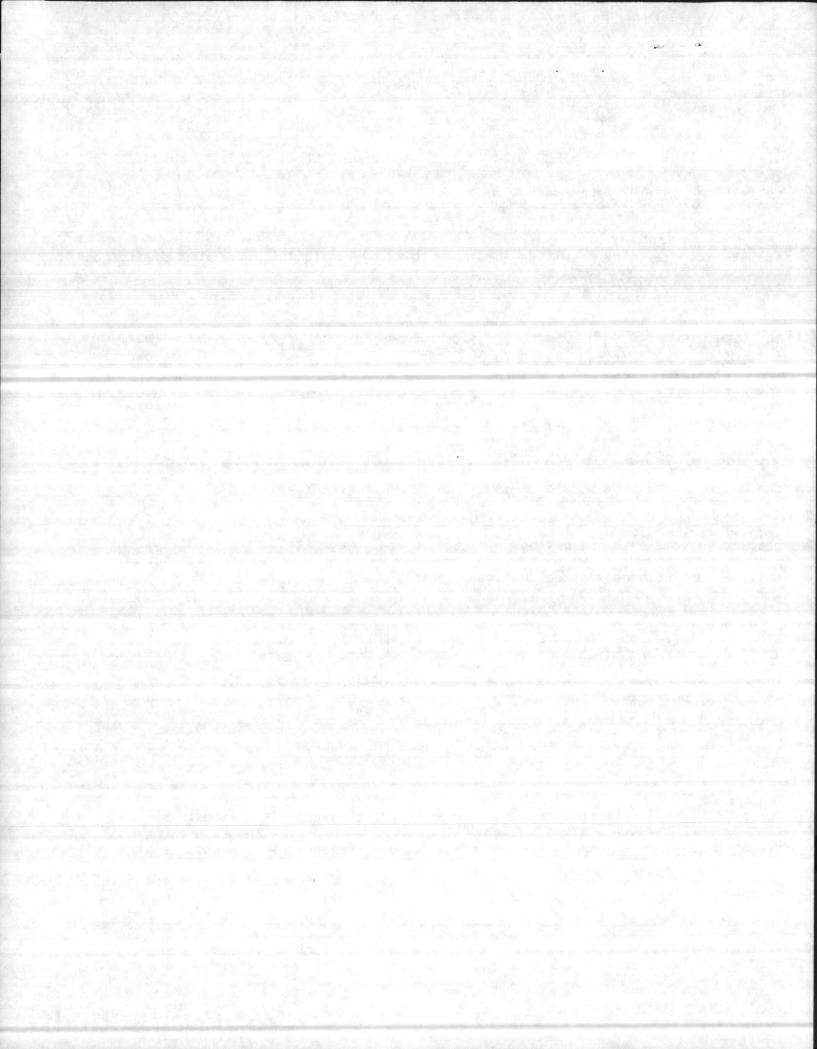
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Regional Director, FWS, Atlanta, GA (ARD-FA/SE) Director, FWS, Washington, DG (AFA/OES)



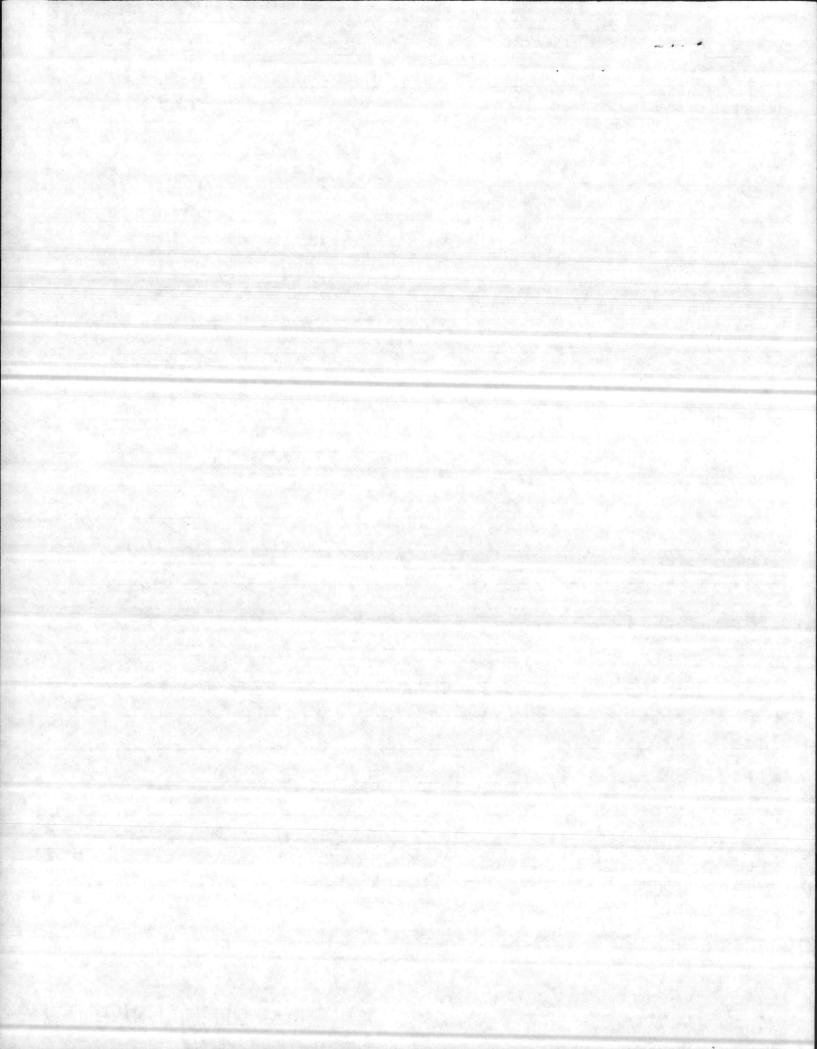
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Keport 76. 18-81 ON OTTOTAL USE UNLY SSgt Maldonado stated to the inspector that he knew the sites were restricted and had mentioned this to Lt. Lynn but that Lt. Lynn instructed him to enter within the marked boundary anyway." 24. -·..... 12 . 24 1 1 2 1. ST 27 2 S - 2 -

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United (ates Department of the Cherior

PISH AND WILDLIFE SERVICE PLATEAU BUILDING, ROOM A-5 50 SOUTH FRENCH BROAD AVENUE ASHEVILLE, NORTH CAROLINA 28801

December 22, 1981

Major General C. G. Cooper Commanding General U.S. Marine Corps Camp Lejeune, NC 28542

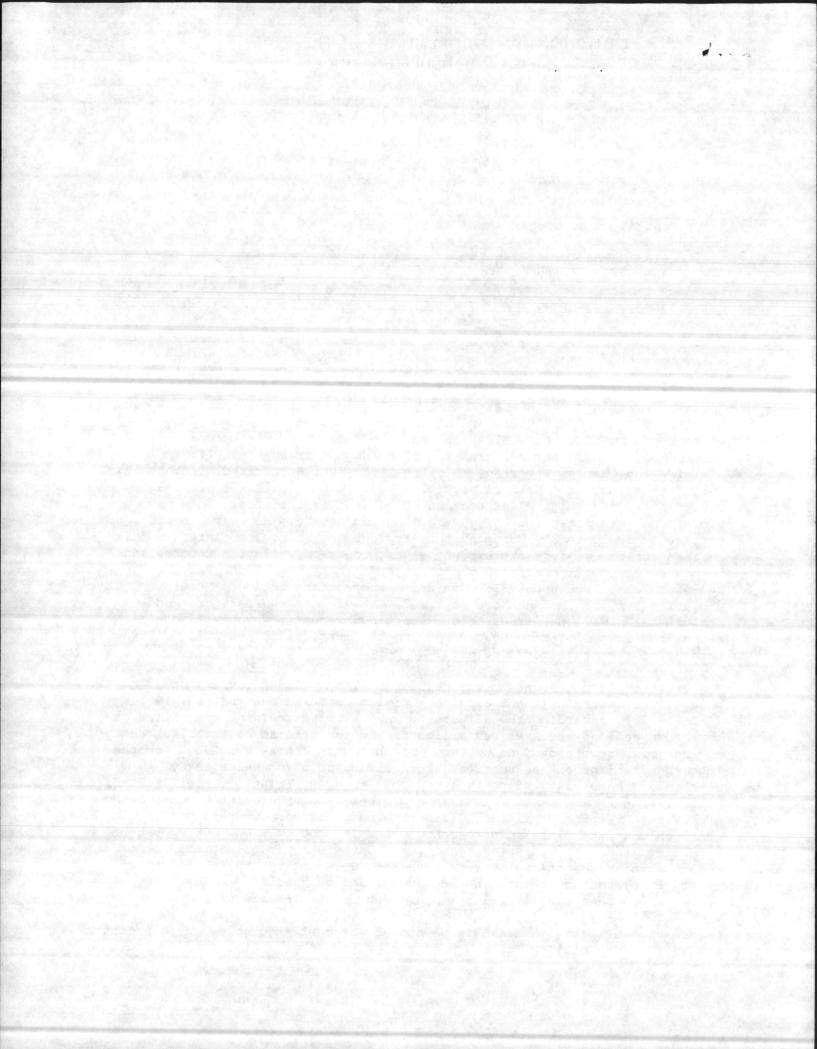
Re: 4-2-78-F-384

Dear General Cooper:

Personnel from this office (Warren Parker and Gary Henry) of the Fish and Wildlife Service conducted a periodic inspection of the Tank/Mechanized Infantry Training Area on December 15, 1981, as specified in the Biological Opinion of June 12, 1979, regarding the red-cockaded woodpecker and the effects of training activities upon the species. They were accompanied by Julian Wooten, Director, Natural Resources and Environmental Affairs Division and Charles Peterson, Wildlife Management Supervisor, in this third periodic inspection. We were very pleased with the obvicus improvement regarding indiscriminate destruction of habitat in the area. Very few violations were noted and these were minor in nature. However, in order to completely evaluate and document this improvement and to complete our files on this action, we request that we be sent copes of violation reports and responses of the 2nd Marine Division regarding the violations for the calendar years 1980 and 1981. Our prior inspections included receipt of violation reports through November, 1979. Review of these reports and actions taken will permit us to document improvements, which will be recognized in a letter to you addressing the inspection, and will follow our receipt of the requested documents.

The visit to Camp Lejeune by our personnel also included review and discussions regarding the Biological Opinion rendered December 10, 1981 (4-2-81-198), regarding the effects of Marine Corps training activities on the brown pelican and American alligator and the effects of establishment and use of a new range (Onslow Beach North Tower Machine Gun Range) on the loggerhead and green sea turtles. In addition to personnel already mentioned, these discussions included Colonel J. R. Fridell, Chief of Staff; Colonel F. H. Mount, Base Maintenance Officer; and Lieutenant Colonel E. M. Asanovich, Training Facilities Officer. These discussions resulted in a thorough understanding and agreement concerning the Opinion. Our personnel also discussed with Wooten, Peterson, and Danny Sharpe, Ecologist, the consultation with National Marine Fisheries Services regarding effects of firing live ammunition into the ocean upon sea turtles and whales. Advice was provided regarding consultation procedures and requirements.

As always, our contact with Base personnel was most enjoyable. We express, again, our appreciation for the cooperation and hospitality extended and



continue to view Camp Lejeune as an exemplary example of cooperation and multiple use management on military installations.

Sincerely yours,

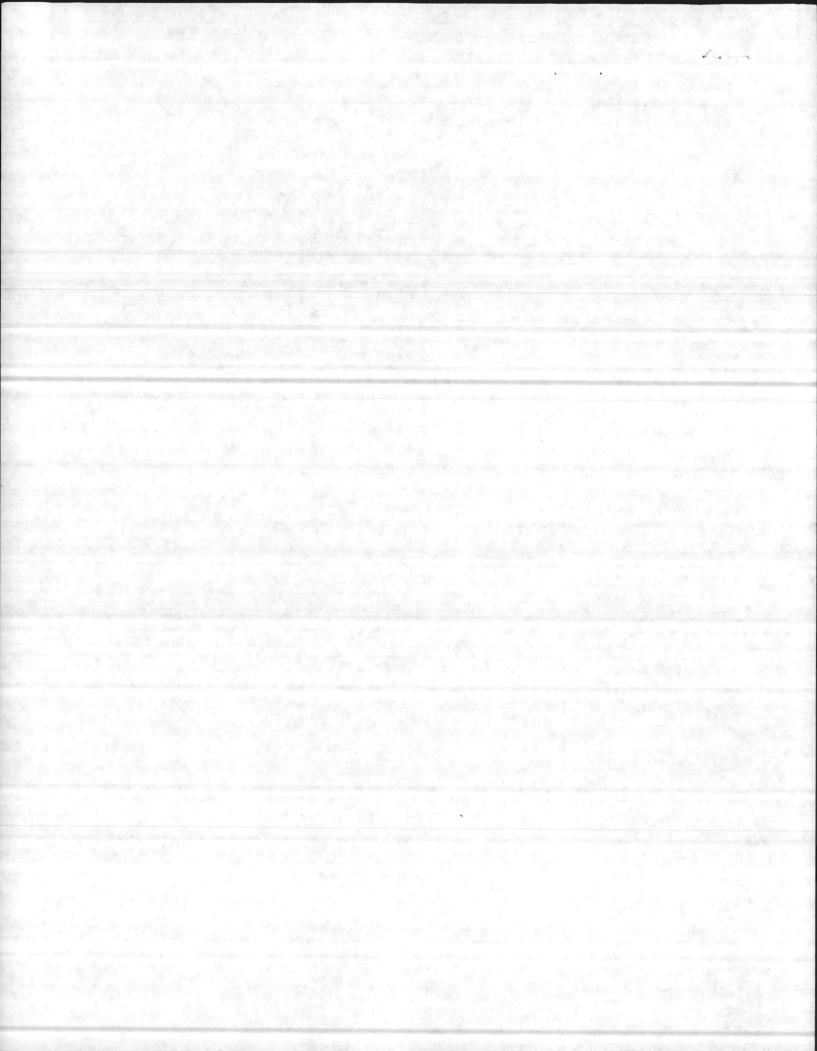
Warren T. Parker Acting Area Manager

cc:

T: 1. 100

Director, FWS, Washington, DC (OES) Regional Director, FWS, Atlanta, GA (ARD-FA/SE) Project Leader, FWS, Raleigh, NC

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United States Department of the Interior FISH AND WILDLIFE SERVICE ROOM 279, FEDERAL BUILDING ASHEVILLE, NORTH CAROLINA 28801

January 4, 1980

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

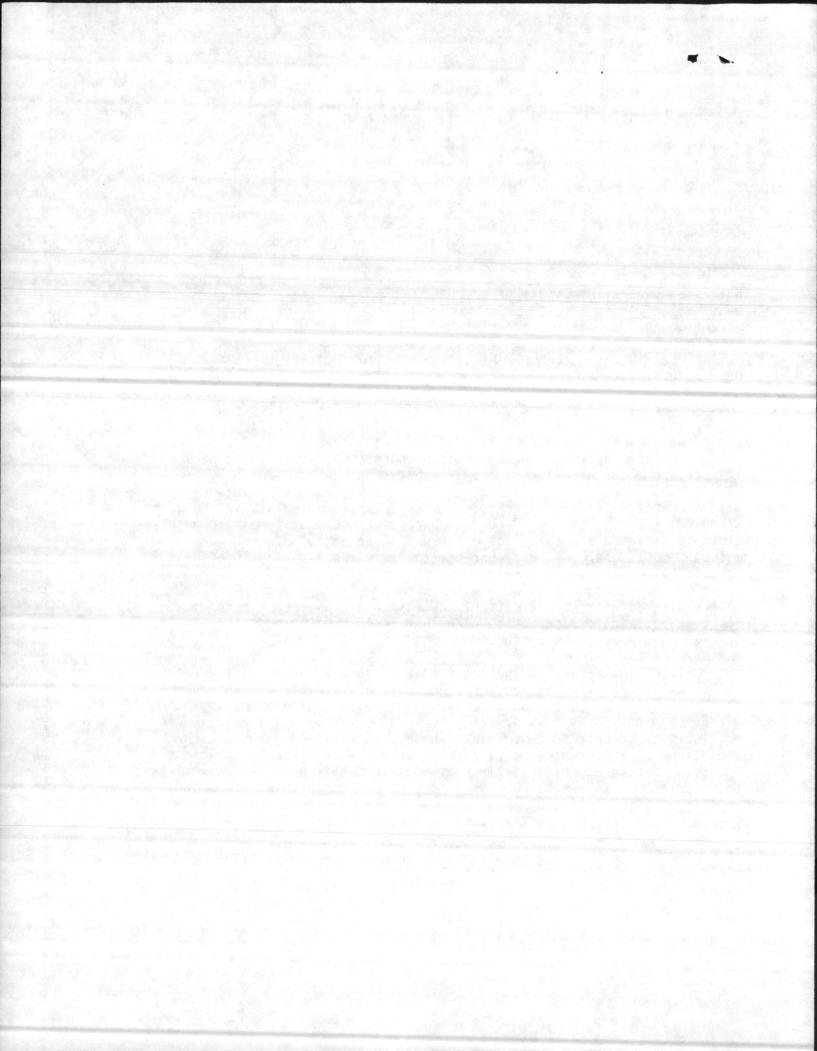
Dear General Barker:

This letter is our report to you regarding our second inspection of the Mechanized Infantry Training Area on Camp Lejeune as specified in the Biological Opinion of June 12, 1979, regarding red-cockaded woodpecker and the effects of training activities upon the species. The area was inspected on December 11, 1979, by Mr. Gary Henry, accompanied by Lieutenant Colonel W. J. Feind, Training Facilities Officer; Charles Peterson, Wildlife Management Supervisor; and Danny Sharpe, Ecologist. We believed that an inspection at this time was appropriate so that remaining problems could be detected and solutions discussed at an early date for our mutual benefit and/or to document the positive results of your efforts to date.

We are pleased with the results of the inspection when considered in light of our earlier inspection of August 14-15, 1979, and prior visits during the consultation conducted during the past year.

The indiscriminate destruction of habitat evident in prior visits was not as evident in this inspection. The only new violation found during the inspection was minor and concerned a tank trap which extended into a marked support stand, thus damaging roots of several pine trees. Review of violation reports since our last inspection revealed three other violations in a four-month period. Two of these were minor violations involving cut trees, establishment of a command post and tracked vehicle travel within a colony site, thus impacting cavity trees utilized for roosting and/or nesting by the red-cockaded woodpecker by damage to vegetation, soils, and root systems of cavity trees.

In comparison, our review of violation reports during our August inspection revealed 16 violations in a period of about three months from May 22, 1979, to August 16, 1979. Many of these 16 violations were very serious in terms of impact upon the habitat of the red-cockaded woodpecker and some were so extensive that they could have been broken down into several separate violations of varying nature.



Although we do not know how much of this decrease in violations is due to a decrease in training activities during the last four months, we believe this comparison documents improvement in the awareness, concern and attention given to the red-cockaded woodpecker in training activities. We believe this is a direct result of the program outlined in the Biological Opinion and our inspection report of August 28, 1979, and most importantly, the implementation of positive actions by the Marine Corps Base. The personnel involved are all to be commended for their efforts. We wish to especially recognize for commendation Lieutenant Colonel Feind. His attitude, interest in the problem and the species involved, personal involvement with on-the-ground activities, and his efforts in informing users of the situation and their responsibilities and monitoring use of the area are exemplary.

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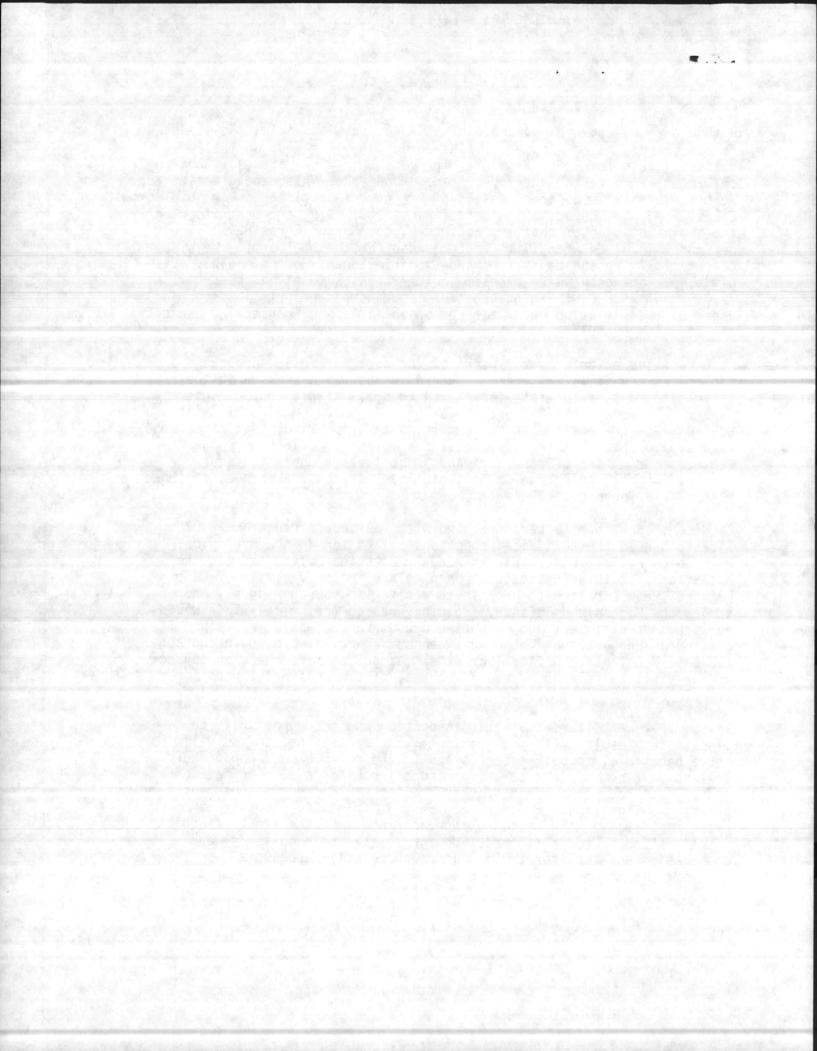
More positive efforts by the users of the area and follow-up on the violations are still matters of concern for us, as discussed in the fifth paragraph of our last inspection report. With a copy of this report, we request the Commanding General of the 2nd Marine Division advise us of the actions taken concerning the violations that have been reported to date, a total of 20. If disciplinary actions were taken, what was the nature of the reprimands? We feel strongly that further improvement will only come with disciplinary actions taken against those responsible for use of the area.

As discussed with base personnel and with your concurrence, we would like to handle the periodic inspections called for in the Biological Opinion on an irregular basis as need or occasion arises, as was the situation with this inspection. When we are in the vicinity of Camp Lejuene, we would like to drop in to visit with your personnel, and review the Mechanized Infantry Training Area at that time. This would be more cost-efficient and less time consuming and would maintain continuous rapport and contact between our agencies. We could contact the Base Maintenance Officer, or other designated personnel, in advance of our visit by telephone and, if agreed, dispense with the need for a formal letter of notification.

In summary, we believe that this inspection and the opportunity to discuss the results with your personnel and report them to you will prove beneficial to both agencies and to the red-cockaded woodpecker. You and your command are to be commended for efforts made to maintain and protect red-cockaded woodpecker habitat while carrying out your training obligations. However, the Second Marine Division and other users must take a more positive approach in use of the area, if habitat deterioration is to be stopped. We appreciate the hospitality and cooperation and look forward to future cooperative endeavors.

Sincerely yours,

Warren T. Parker Acting Area Manager



United States Department of the Interior

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FISH AND WILDLIFE SERVICE ROOM 279, FEDERAL BUILDING ASHEVILLE, NORTH CAROLINA 28801

August 28, 1979

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

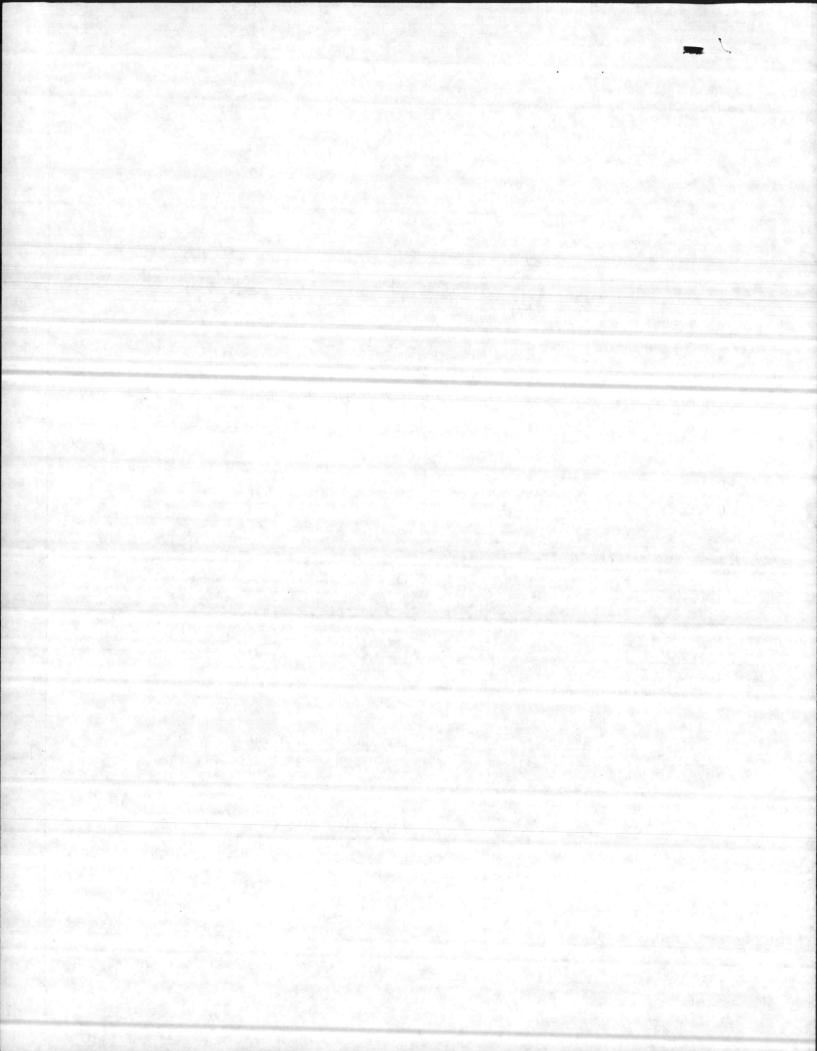
Dear General Barker:

This letter is our report to you regarding findings of an informal status review of red-cockaded woodpecker habitat on the Camp Lejeune reservation. This field review was conducted during the period August 14-15, 1979. The assistance provided by your staff during this visit is very much appreciated.

As you are aware, the area of most concern to us is the Mechanized Infantry Training Area. We were disturbed to find red-cockaded woodpacker habitat to be substantially degraded along several of the primary tank roads in the training area. This conclusion is based on our findings of habitat quality six months ago. Obvious heavy tracked vehicle usage within protected buffered areas, and in some cases immediately adjacent to cavity trees was the most frequently observed problem. These vehicles are not staying within designated tank trails. Within one protected buffer area, four large pine trees had been recently felled, two by chain sawing and two had evidently been pushed over by heavy equipment. One of the trees sawed still had a restricted area metal sign attached. Other problems observed included the recent digging of foxholes within protected buffered zones, leaving barbed wire fastened to trees within these areas, and the taking down of signs designating protected habitat.

We found the protected buffer zones and cavity trees to be well marked. In fact, these areas are now so well marked that violations would have to be classified as deliberate. The education program recently initiated by your staff is to be commended, especially endangered species articles in the base newspaper. A review of the June 7, 1979, Base Order 11015.6, Red-cockaded Woodpecker Protection Program/Measures is adequate, and if implemented would substantially provide for the maintenance of birds within the mechanized training area.

As discussed with you and Colonel Fridell, it is our <u>opinion that your</u> <u>command is taking adequate measures</u> to not only clearly designate protected endangered species habitat, but is also attempting to educate the user command at Camp Lejeune, the 2nd Marine Division. <u>We perceive the</u> <u>existing problems in the mechanized training area to be a breakdown in</u> *long Invided Irng, Maul, Jac*



2nd Division Command, probably at the Company level down. To assist in inis regard, it is recommended that a 10-minute color slide presentation be developed and reviewed by all troops that are scheduled to use the mechanized training area. In addition, the designation of one officer or non-commissioned officer from each company to be exposed in-depth to the need for red-cockaded woodpecker protection might prove beneficial. This individual may provide the needed catalyst in averting violations in future training missions.

The above mentioned actions and recommendations will likely lead to a long term solution. We are very concerned, however, that significant declines in red-cockaded woodpeckers will occur if violations are not curbed in the near future. Violations should be pursued and those responsible disciplined in a positive manner. Until such actions are realistically taken by those with command responsibility in the 2nd Division, we cannot be optimistic regarding this particular endangered species within the mechanized training area.

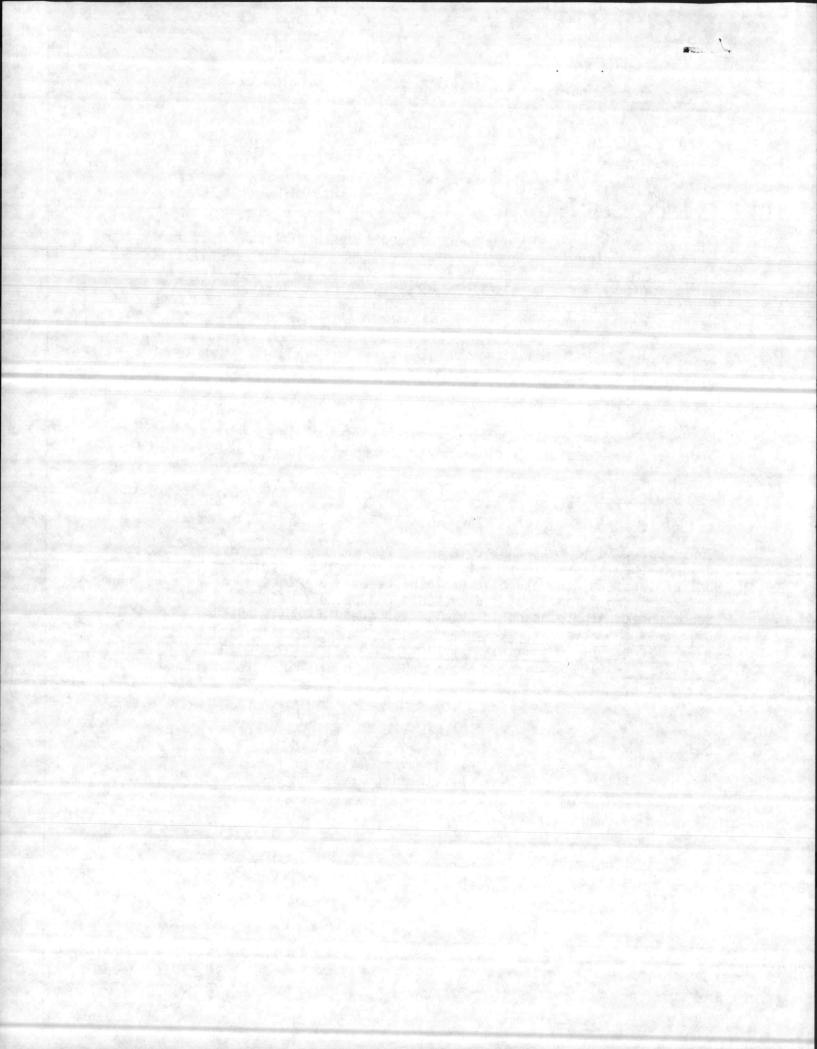
To better define population status and trends of the red-cockaded woodpecker in the training area, it is suggested that consideration to be given to a survey of these birds. This matter will be pursued with researchers at North Carolina State University to determine their capabilities, including the possibility that they can fund such an endeavor.

There was some discussion about transplanting these birds to areas of low density. Research to date strongly indicates that such an effort would likely lead to the death of birds moved.

In summary, it is felt that this field review, and the opportunity to discuss the issues with you will prove beneficial. It is our firm belief that training exercises within the area of concern can be continued and remaining colonies of red-cockaded woodpeckers maintained if the recommendations discussed in this letter are vigorously pursued. This will only be accomplished, however, when the 2nd Division undertakes a realistic effort to police its actions when operating within the mechanized infantry training area.

Sincerely yours,

Warren T. Parker Acting Area Manager



T-11015/12

NREAD/JIW/th 11015 2 MAR 1984

Mr. Warren T. Parker Field Supervisor US Fish and Wildlife Service Plateau Building Room A-5 50 South French Broad Avenue Asheville, North Carolina 28801

Dear Mr. Parker:

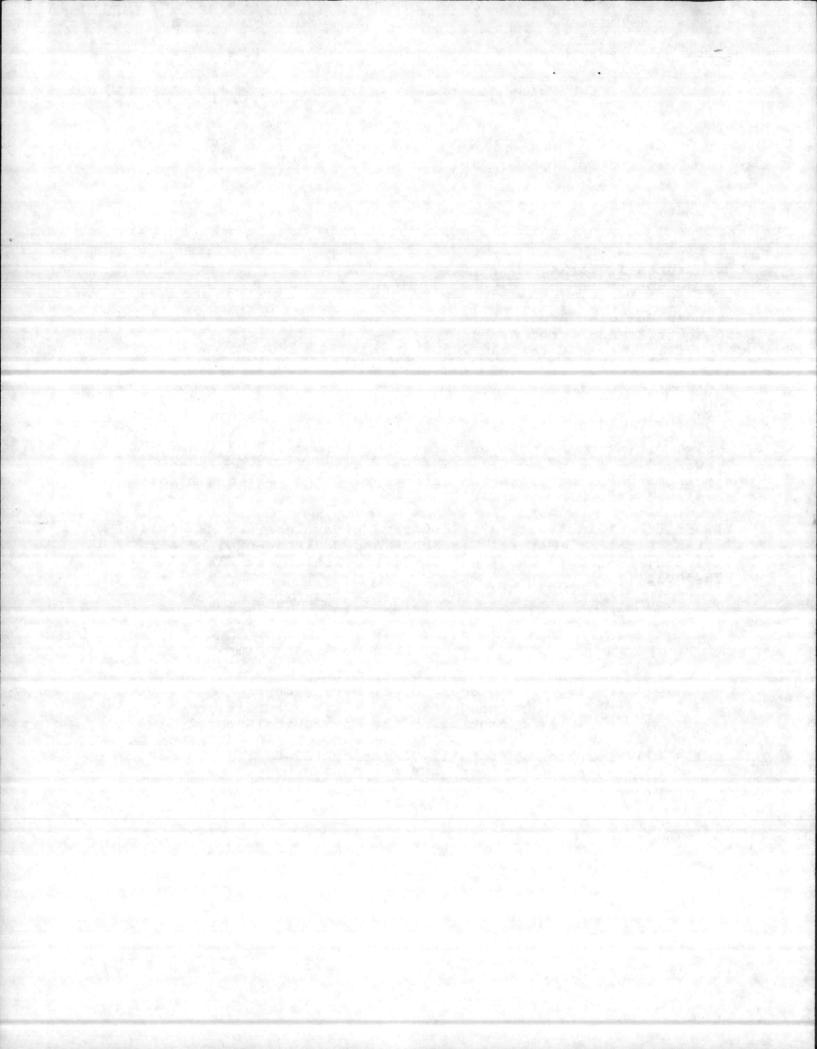
This is in response to your 3 February 1984 request for additional Red-Cockaded Woodpecker habitat information. Accordingly, violation reports numbers 12-83 through 22-83 are forwarded as enclosure (1). The most current Red-Cockaded Woodpecker habitat violation reports 1-84 and 2-84 are also forwarded as enclosure (2).

If additional information is desired, please contact Mr. Julian Wooten, Director, Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities, at FTS 676-5903.

Sincerely,

M. G. LILLEY Colonel, U. S. Marine Corps Assistant Chief of Staff, Facilities By direction of the Commanding General

Encl: (1) Violation Reports 12-83 through 22-83 (2) Violation Reports 1-84 and 2-84





UNITED STATES MARINE CORPS MARINE CORPS BASE CAMP LEJEUNE: NORTH CAROLINA- 28542

FAC/MGL/hf 6280/7 1 6 JAN 1984

Mr. Warren T. Parker, Field Supervisor Endangered Species Field Office U.S. Fish and Wildlife Service Plateau Building, Room A-5 50 South French Broad Avenue Asheville, NC 28801

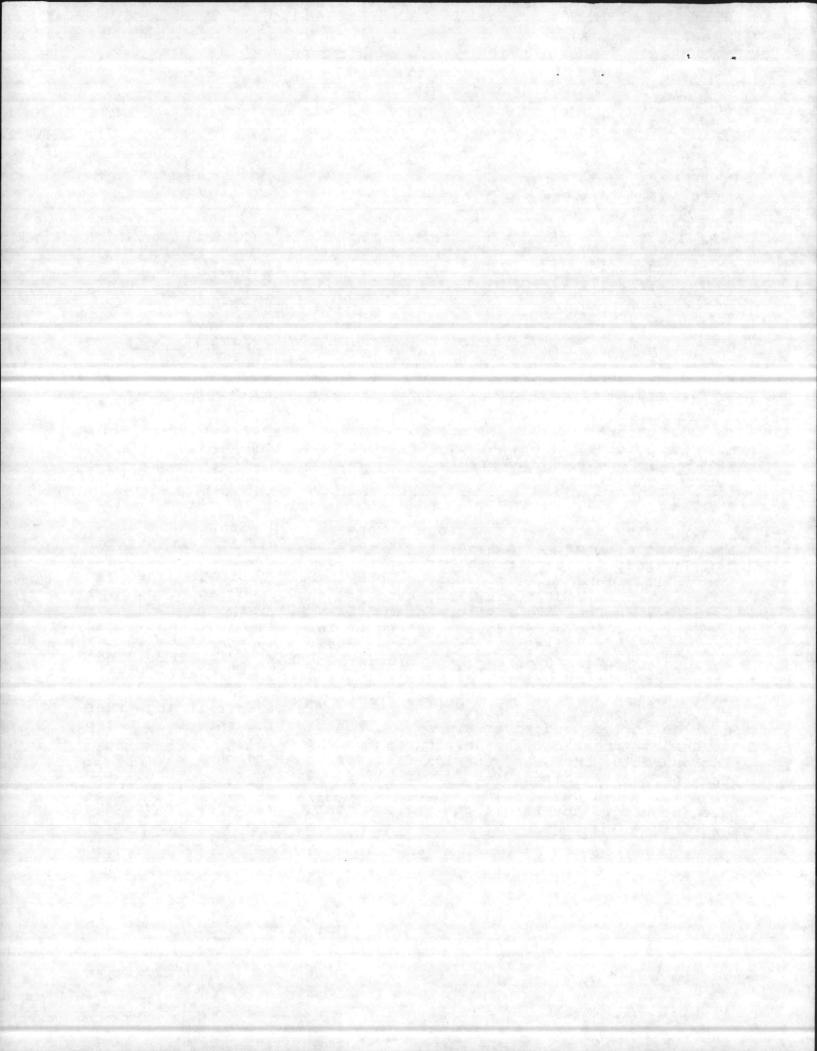
Dear Mr. Parker:

This letter responds to your 20 September 1983 inspection report on the effects of Marine Corps training at Camp Lejeune on the Red-Cockaded Woodpecker.

As requested, violation report 15-82 and the supplemental sheet for violation report 17-82 are forwarded as enclosures (1) and (2), respectively. Pertaining to digging of foxholes (report 12-83), it has been the practice of the Base to send violation reports on an annual basis. Report 12-83 would have been included in the next group of reports sent to you.

Marine Corps Base is continuing to work closely with tenant commands in an effort to provent recurrence of violations in marked Red-Cockaded Woodpecker habitat. Barricades have been installed where violations have occurred to more clearly delineate the boundary of marked areas. Enclosure (3) shows such an area. The Natural Resources and Environmental Affairs Division (NREAD) has begun installing signs to prevent entry into marked areas by tracked vehicles. A total of 200 signs were received by the Division on 6 January 1984; 300 more are on order. These signs will be placed in selected areas with already existing endangered species signs (see enclosure (4)). An information sheet has been prepared and will be given by Range Control to units requesting training areas near or in the woodpecker sites. The information sheet will also be used by the NREAD in their education program (see enclosure (5)). Enclosure (6) shows Mr. Charles Peterson as he teaches a class to the 2d Tank Battalion on 6 January 1984. In addition, when training objectives can be equally met in alternative areas, training units are encouraged not to use the marked areas. Mr. Henry requested

and and and



T-11015/1a

FAC/MGL/hf 6280/7

copies of violation reports since June 1983 during his last visit. They will be forwarded to you under separate cover. Marine Corps Base will forward violation reports in the future as they occur.

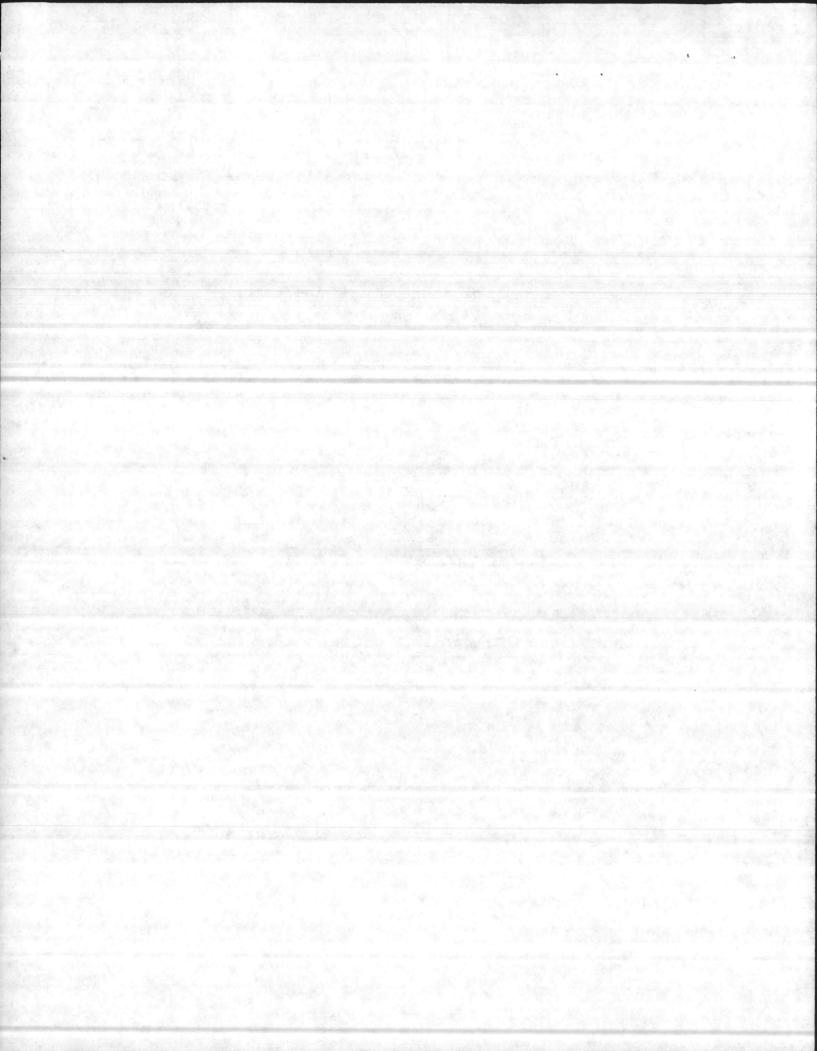
Sincerely,

M. G. LILLEY Colonel, U.S. Marine Corps Assistant Chief of Staff, Facilities By direction of the Commanding General

Encl: (1) Violation Report 15-82 (2) Supplemental Sheet for 17-82 (3) Photo of Barricades (4) Photo of Signs - Charly will 2D Tank formed (?) (5) Information Sheet / (6) Photo of On-Site Training

ina'

Blind Copy to: NREAD



FUR UFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

MAIN/COP/th / 11015 SEP 0 2 1982

From: Base Commander

BCC: SJA FAC TRNG

To: Commanding General, 2d Marine Division, FMF, Camp Lejeune, North Carolina 20042

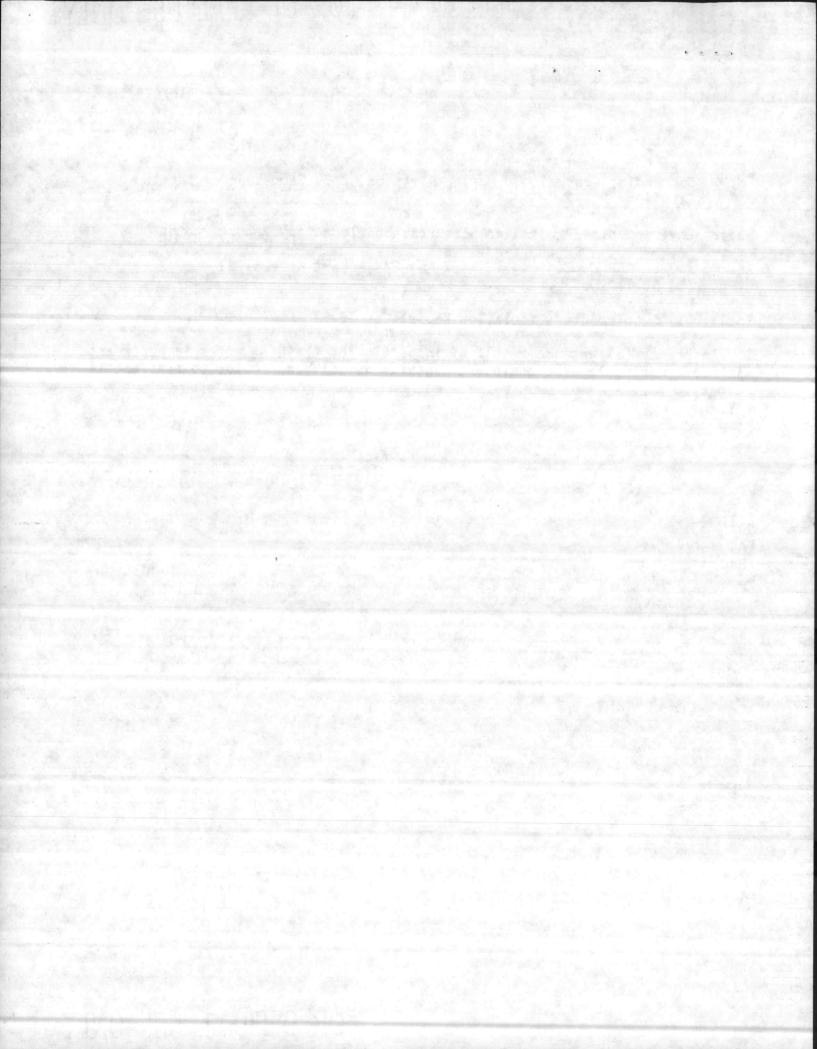
Subj: Environmental/Frotection Ressures: Supplementary Report/Photosy

Ref. (a) CG MCB Cambej msg 191845Z Aug 22 (Report Ho. 15-82) (b) 60_11015.5

Encl: (1) Supplementary Violation Report Ho. 15-82

1. Reference (a) was the result of inspection of training areas in accordance with reference (b). The enclosure contains details and photos to supplement reference (a).

By direction

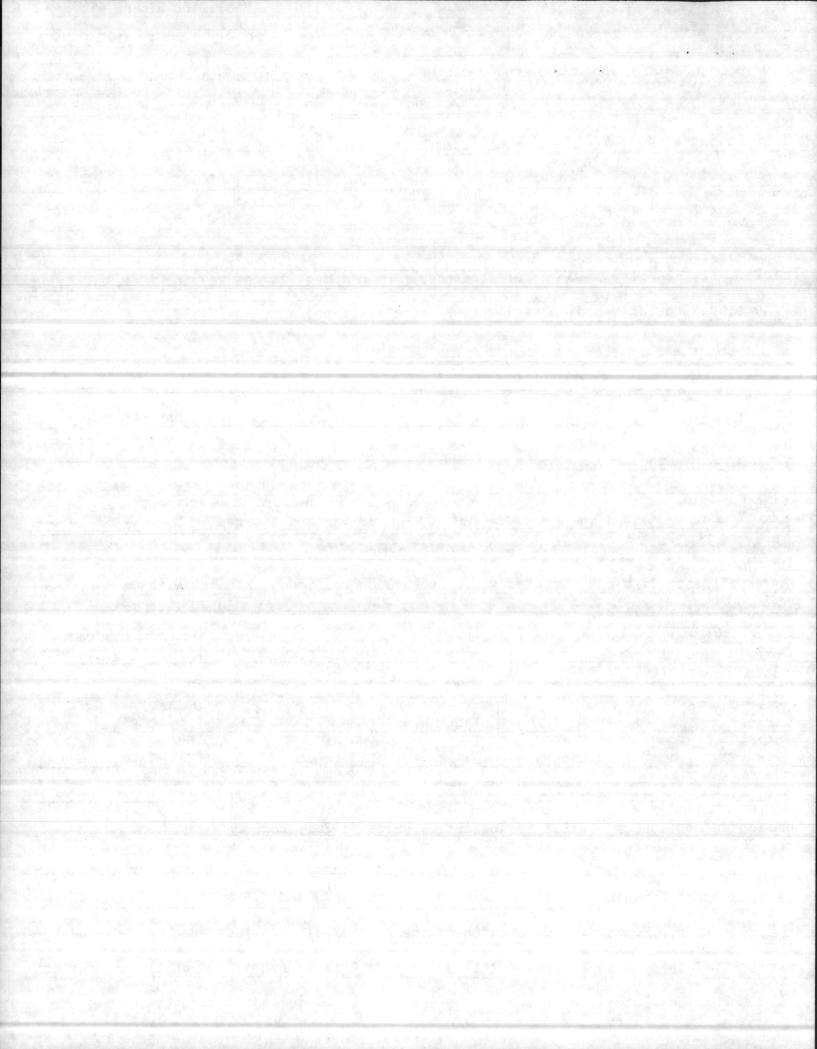


Violation Report #15-82 VIOLATIONS TO REVISED BIOLOGICA. PINION FOR THE RED-COCKADED W DPECKER MCBCL 11015/1

SUMMARY OF INSTRUCTIONS: Base assessment of violation on the revised biological opinion conducted on 26 April 1979. Record violations existing in either contiguous habitat or buffer zone areas or both as necessary. Record observations in appropriate column listed below for violations that are occurring or have occurred.

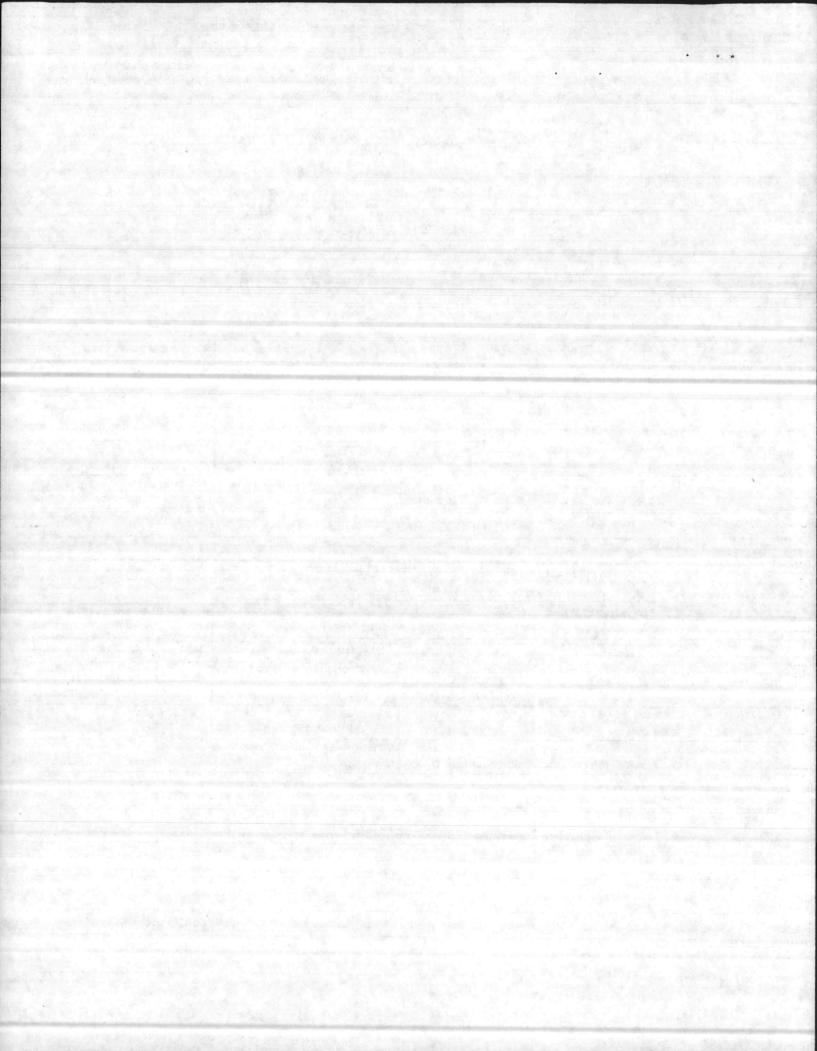
OBSERVER(S)

C. D. Peterson, Wildl	ife Manager,	Natural Res	ources & Environmental	Affairs Branch (NREAB)
DATE 13 Aug 1982	1330-1630		GRID COORDINATES	
DESCRIPTION OF LOCATION	1330-1030		884323, 886323, 87	4301
TLZ Dove - Combat Tow	π			
DESCRIPTION OF VIOLATION		BUFFER ZON	IE AREA	
Tracked vehicle entry	into buffer	zone result	ing in damage to mature	pine tree, tree root
systems, destroying t	wo pine sapli	ngs, 24 pin	e seedlings at grid 88	4323.
DISTANCE NEAREST CAVITY - 75 ft	DISTANCE TO BUF		RΥ	NO. VEHICLES INVOLVED
USHC # AND TACTICAL MARKING OF	FVEHICLES	· · · · · · · · · · · · · · · · · · ·	UNIT INVOLVED	
Unknown		A Daring	2d Assault Amphibio	
OFRICER-IN-CHARGE	· · · · · · · · ·	Unknown-	••••••••••••••••••••••••••••••••••••••	NO. TREES DAMAGED
WERE OFFICERS OR NCOIC AWARE			DIAMETER OF TREES	TREE SPECIES
TYES D NO	Unkno	wn	2" to 4"	Longleaf, loblolly
WAS THERE OTHER DAMAGE TO			SIZE OF AREA WHERE OTHER DAM	AAGES EXIST
SHRUBS DAYES D NO. PLANTS	CAYES I NO SOIL	S DATES O NO	39 yards x 4 yards	والموجا والمقادة والبرية ساديعها والأرا
	CC	NTIGUOUS HA	BITAT AREA	
DESCRIPTION OF VIOLATION				
	t by tracked .	vehicles the	much contiguous habit	at without prior approv
the second second second second second	Section Section of		ough conciguous nabic	at without prior appro
of NREAB. Excavation		w foxholes		
DISTANCE FROM NEAREST CONTIGL 0-15 ft	JOUS BOUNDARY	• • • •		NO. VEHICLES INVOLVED
USHC . AND TACTICAL MARKING OF	VEHICLES		UNIT INVOLVED	and return of the second
Unknown		-	2d Assault Amphibiou	s Battalion
OFFICER-IN-CHARGE		NCOIC		NO. TREES DAMAGED
Unknown	The second states and	Unknown		5
WERE OFFICERS OR NCOIC AWARE			DIAMETER OF TREES	TREE SPECIES
O YES O NO	Unknown	and the second second	3" to 5"	Longleaf
WAS THERE DAMAGE TO			SIZE OF AREA WHERE OTHER DAM	
SHRUBS ON YES DINO PLANTS	CYES I NO SOIL	S PYES D NO	75 yards x 4 yards	
Damage in contiguous	habitat is lo	ocated at gr	ids 874301, 886323	
OTHER PERTINENT INFORMATION The above training an	eas were ass	igned to 2d	Tank Battalion on the	above date according
				and all according
to Base Range Trainin	ng Facilities	who advised	that 1/6 and 2/6 wer	e also in the above
training area. Excep	t for excava	tion of the	new foxholes, all dam	ages were caused by
autracs. According t	to 2d Tank Bat	ttalion, the	e 2d Assault Amphibiou	s Batta on was the
only Amphibious Batta	lion in the a	area where t	the above violations o	ccurred.



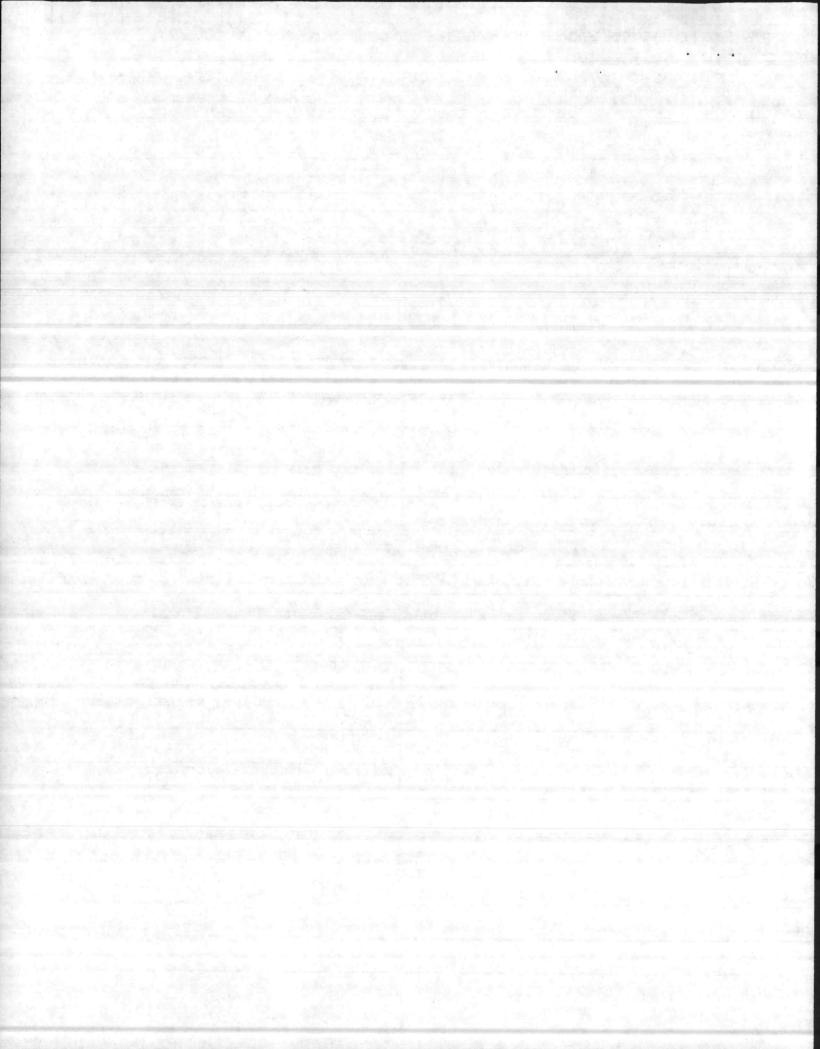
VIOLATIONS TO REVISED BIOLOGICAL INION I UR TH	HE RED-COCKADED WO	ECKER
SUMMARY OF INSTRUCTIONS: Base assessment of violat Record violations existing in either contiguous habitat or t appropriate column listed below for violations that are occur	buffer zone areas or both as n	inion conducted on 26 April 1979. ecessary. Record observations in
OBSERVER(S).		
Poole, Sam F., NREAD, and Sgt Brumley,	J. A., Range Maintenan	nce
DATE TIME	GRID COORDINATES	
7–12–83 0935–0943	884302	
DESCRIPTION OF LOCATION		
TLZ Dove	and the second	and the second
BUFFER	ZONE AREA	
DESCRIPTION OF VIOLATION		
alone is an interest of the second		
DISTANCE NEAREST CAVITY DISTANCE TO BUFFER ZONE BO	UNDARY	NO. VEHICLES INVOLVED
	· · · ·	
USMC # AND TACTICAL MARKING OF VEHICLES	UNIT INVOLVED	
	and an all the	Luo sosso e vivienza
OFFICER-IN-CHARGE NCOIC		NO. TREES DAMAGED
WERE OFFICERS OR NCOIC AWARE OF VIOLATION	DIAMETER OF TREES	TREE SPECIES
	SIZE OF AREA WHERE OTHER	P DAMAGES EVICT
WAS THERE OTHER DAMAGE TO SHRUBS D YES D NO PLANTS D YES D NO SOILS D YES D		DAMAGES EXIST
SHRUBS D YES D NO PLANTS D YES D NO SOILS D YES D		
CONTIGUOU	IS HABITAT AREA	
DESCRIPTION OF VIOLATION		
Excavation of 20 foxholes in contiguous	habitat, resulting in	damage to trees, tree
. root systems, woody vegetation, plants a	and disturbance of soil	S.
DISTANCE FROM NEAREST CONTIGUOUS BOUNDARY		NO. VEHICLES INVOLVED
/9vds	and the state of the second	none
USMC # AND TACTICAL MARKING OF VEHICLES	UNIT INVOLVED LIMA CO	
None	4th Marines, 2	Ind Marine Division
OFFICER-IN-CHARGE NCOIC		NO. TREES DAMAGED
	. Bell, J.L.	32
WERE OFFICERS OR NCOIC AWARE OF VIOLATION	DIAMETER OF TREES	TREE SPECIES
D YES DE NO	8'' - 18''	Pine
WAS THERE DAMAGE TO	SIZE OF AREA WHERE OTHE	R DAMAGES EXIST
SHRUBS O YES D NO PLANTS O YES D NO SOILS D YES D	ONO One acte	
A		
a tal		
OTHER PERTINENT INFORMATION		
The above violation occurred since 6 Jul	Tv 1983 and before 12.	July 1983.
	<u>Alexandre en e</u>	

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ACBCE 110,15/1			and the second
SUMMARY OF INSTRUCTIONS: Base assess Record violations existing in either contiguous ppropriate column listed below for violations t	s habitat or buffer	zone areas or both as n	inion conducted on 26 April 1979. ecessary. Record observations in
BSERVER(S)	Constant of the second		
Sam F. Poole, NREAD, and LCF	PL Kilpatrio		Maintenance
S-25-82 . 0930-094	15	GRID COORDINATES 884323	•
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and the second sec	BUFFER ZONE	EAREA	A START OF
ESCRIPTION OF VIOLATION			
· · · · · · · · · · · · · · · · · · ·	N		and the second second
		a series of the series of	e en
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JSMC . AND TACTICAL MARKING OF VEHICLES	1.00	UNIT INVOLVED	
OFFICER-IN-CHARGE	NCOIC		NO. TREES DAMAGED
YERE OFFICERS OR NCOIC AWARE OF VIOLATION	and a	DIAMETER OF TREES	TREE SPECIES
	A second s	the second s	
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		SIZE OF AREA WHERE OTHEF	R DAMAGES EXIST
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FOR OFFICIAL LISE ONLY



THE RED-COCKADED WOODPECKER ---

AN ENDANGERED SPECIES

The Red-Cockaded Woopecker which is found at Camp Lejeune was listed as an endangered species in 1970. It has the same protection given the better-known Bald Eagle and Whooping Crane. Unlike other woodpeckers, the Red-Cockaded Woodpecker roosts and nests in the cavities of living pine trees. The bird needs older pine trees for its cavities, and extensive pine forests to meet its foraging requirements. Marine Corps Base has completed formal consultation with the U.S. Fish and Wildlife Service and has implemented a program designed to protect the Red-Cockaded Woodpecker and its habitat, as required by Federal law. The focus of the program is to protect the trees, root systems, soils and surrounding habitat of the woodpecker. All known Red-Cockaded Woodpecker habitat, buffer zone and contiguous habitat areas have been well-marked on Marine Corps Base. The buffer zones where the woodpecker colonies are located are marked with two bands of white paint. The contiguous habitat which contains support stands are marked with one band of white paint and signs worded as follows: "Restricted Area Endangered Species Site." While training within a marked area is not of itself a prohibited activity, care must be taken to insure protection of the habitat. The actions listed in paragraphs a and b below are authorized activities. Refraining from the activities listed in paragraph c below will insure minimum impact to support stands and prevent a violation of Public Law 93-205, Endangered Species Act of 1973.

a. Activities authorized in areas marked by a single white band are:

(1) Movement/introduction of wheeled vehicles.

(2) Establishment of command posts at sites approved/ designated by Natural Resources Division, extension 5003 or 2195.

(3) Establishment of bivouacs.

(4) Judicious digging/excavation which does not cause root damage.

(5) Use of tracked vehicles on existing/designated trails.

Salt Q. His PAR

and and a set of some the second set

(6) LVTC-7 entry into command post sites which have been predesignated.

b. Activities authorized in areas marked by double white bands are:

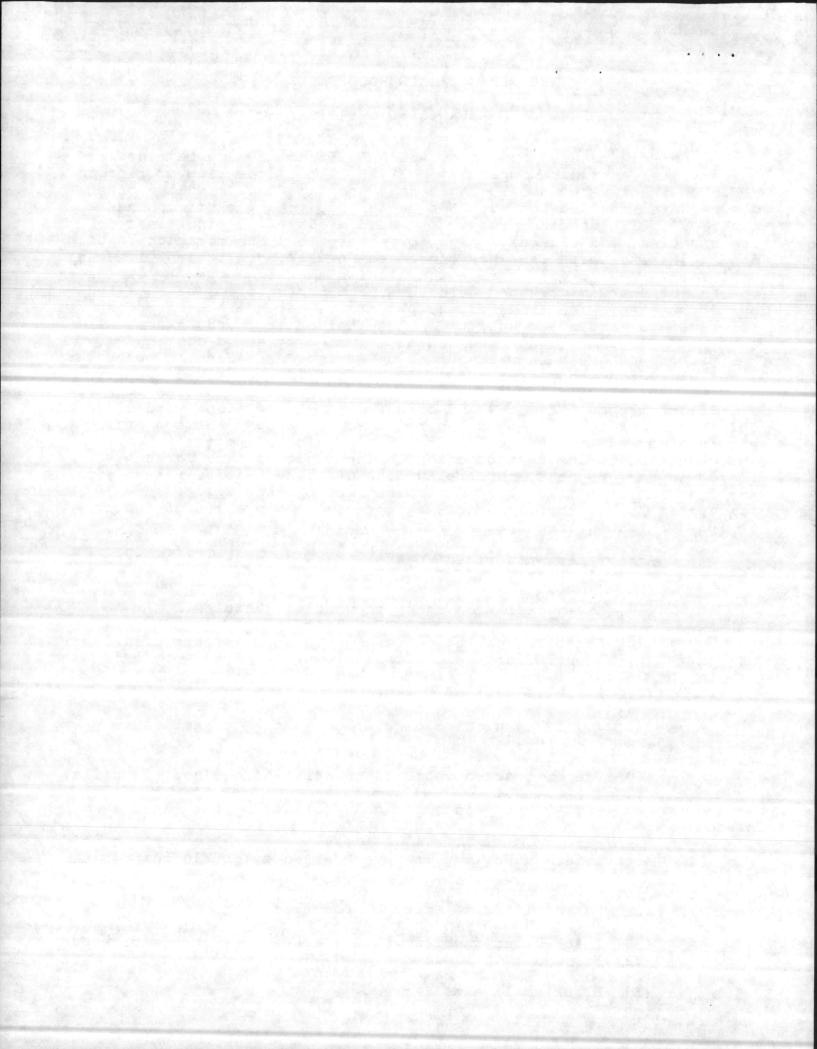
(1) Unrestricted movement by foot troops.

(2) Tracked and wheeled vehicle operations on established/ designated trails.

.

(3) Blank small arms firing.

111.1



c. Activities prohibited in all marked Red-Cockaded Woodpecker habitat areas:

(1) Cutting of pine trées for field fortifications.

t: .

(2) Damaging pines in any way with a motor vehicle.

(3) Killing pines, including cavity trees, by root damage from tracked vehicles.

(4) Girding of pines by the attachment of communication wire.

(5) Disturbing soil by digging field fortifications and trash pits.

(6) Disturbing soil and plants by tracked vehicles traversing general forest habitat areas away from established roads and trails.

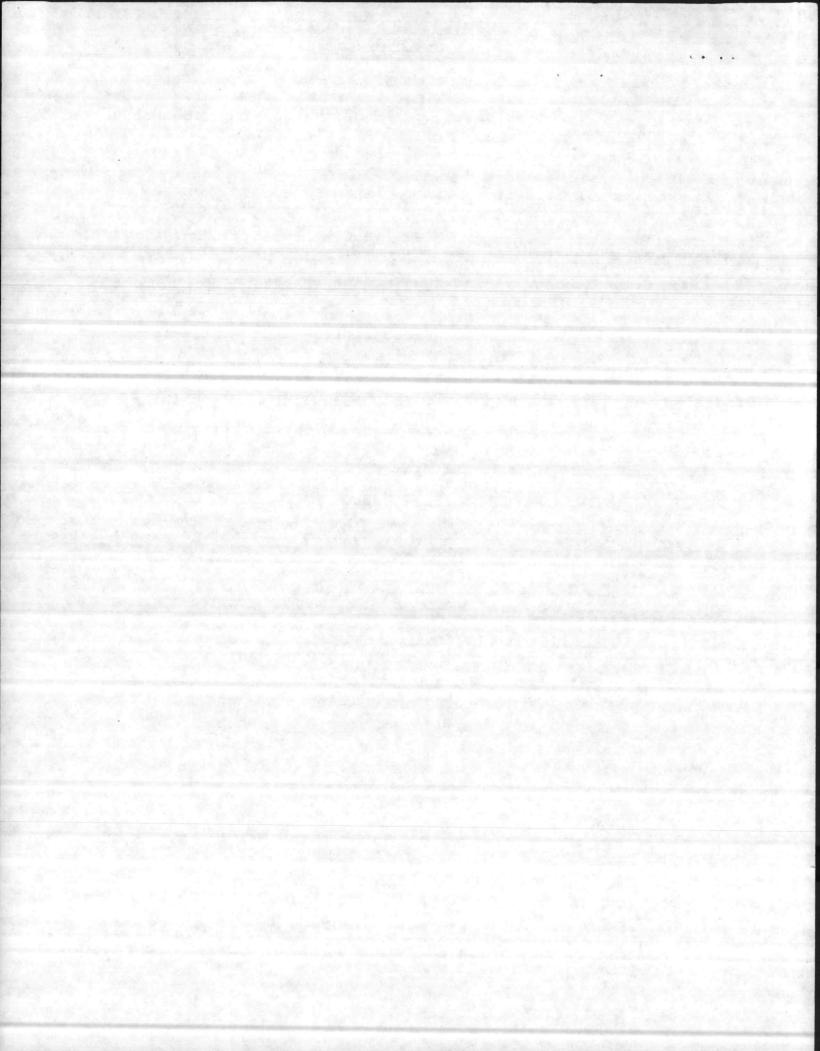
(7) Destroying and removing signs that delineate restricted areas.

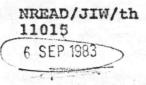
(8) Damaging pines, including cavity trees, by climbing trees to emplace wire, tree-top antennas, etc.

Additional Red-Cockaded Woodpecker management information is available in Base Order 11015.6.

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U. S. Fish and Wildlife Service Plateau Building, Room A-5 50 South French Broad Avenue Asheville, North Carolina 28801

Dear Sir:

2083.

Encls

On 25 July 1983, photographs and violation reports relative to endangered Red-Cockaded Woodpecker protection measures on Marine Corps Base, Camp Lejeune, were forwarded to your agency, at the request of Mr. Gary Henry during his visit on 18 and 19 July 1983. The reports provided were those which had occurred since his visit to Camp Lejeune in December 1982.

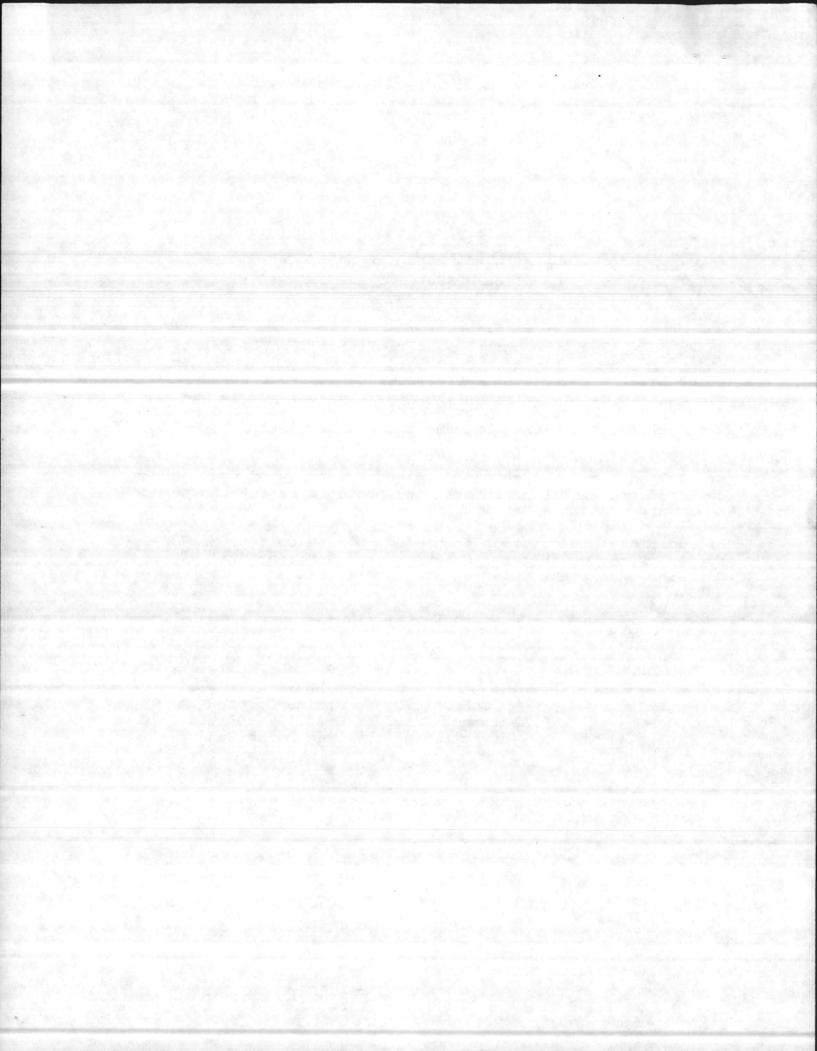
In accordance with a 5 August 1983 telephone conversation between Mr. Julian Wooten of this office and Mr. Henry of your agency, enclosed are violation reports and photographs for the period 1 January - 31 December 1982.

If additional information is needed, please contact Mr. J. I. Wooten, Director, Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities at (FTS) 676-5003/

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Sincerely,

M. G. LILLEY Colonel, U. S. Marine Corps Assistant Chief of Staff, Facilities By direction of the Commanding General



NREAD/COP/dr 11015 JUL 2 5 1983

U. S. Fish and Wildlife Service Plateau Building, Room A-5 50 South French Broad Avenue Asheville, North Carolina 28801

Dear Sir:

Enclosures

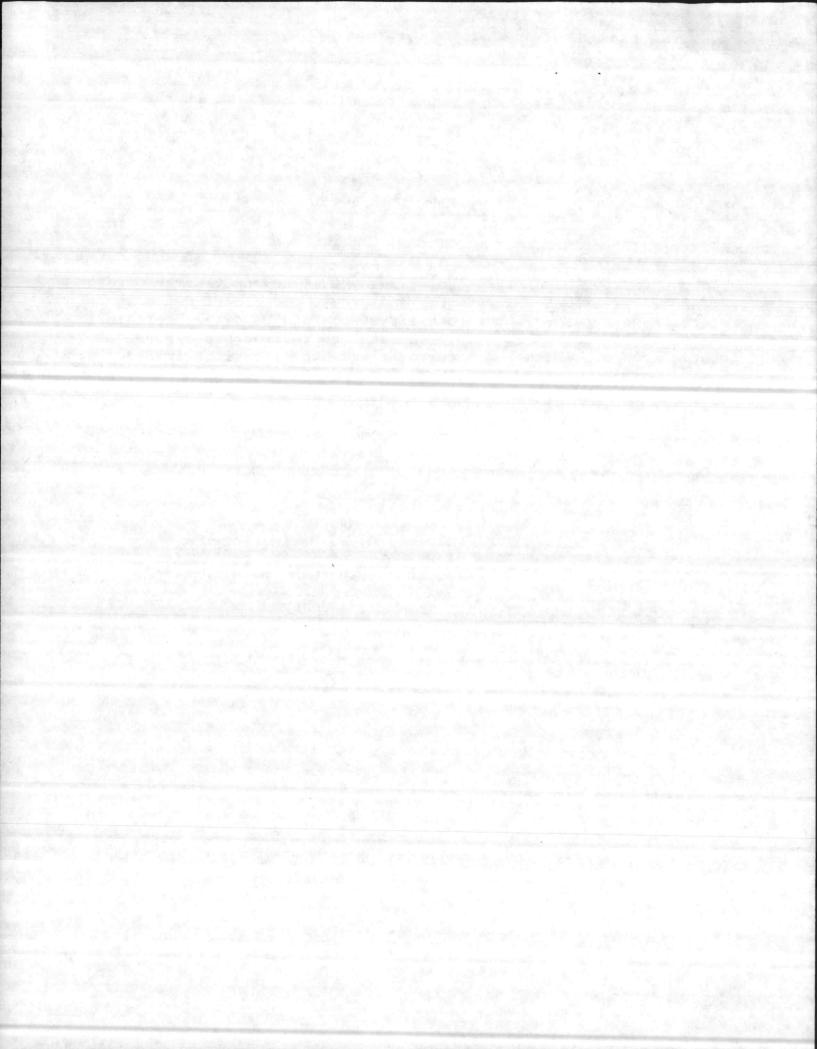
Mr. Gary Henry visited Marine Corps Base, Camp Lejeune, North Carolina on 18-19 July, 1983 to discuss the endangered red-cockeded woodpecker protection measures relative to military training and the biological opinion. While here, Mr. Henry requested copies and photographs of violation reports which had occurred since his last visit in December 1982.

Sincerely,

J. T. MARSHALL Colonel, U. S. Marine Corps

Assistant Chief of Staff, FAcilities By direction of the Commanding General

Violation reports and photographs are enclosed and forwarded as requested by Mr. Henry.



NAIN/JIW/spk 11015 JUL 2 7 1982

Hr. William Wickling Asheville Area Office U. S. Fish and Wildlife Service Flateau Building South French Broad Avenue Asheville, North Carolina 23801

Dear Sir:

In accordance with a phone conversation on 21 July 1982 between Mr. Gary Henry of your staff and Mr. Julian Wooten, Natural Resources and Environmental Affairs, Base Maintenance Division, Marine Corps Base, Camp Lejeune, this letter is to request informal consultation relative to red cockaded woodpecker management and military training aboard base.

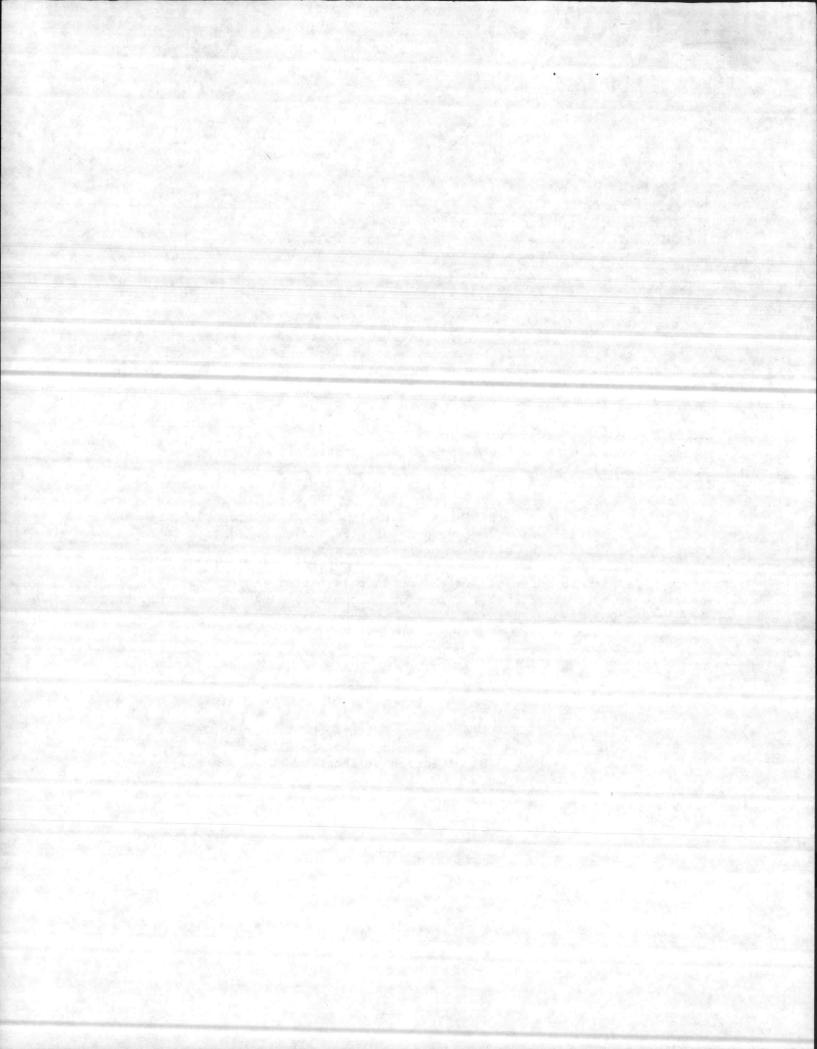
Natural Resources personnel desire to discuss the present red cockaded woodpecker habitat boundaries established by the Biological Opinion issued on 18 June 1979 by your agency under the Endangered Species Act of 1973. There appears to be several boundary lines in the Mechanized Infantry Training Area that could be relocated to allow for track wehicle movement off established trails, thereby allowing more realistic training without significant impact on the red cockaded woodpecker. Additionally, one woodpecker site no longer appears to be active thus the possibility of elfminating restrictions.

We look forward to consulting with you in this matter at your carliest possible convenience. If additional information is desired, please contact Hr. Wooten (FTS) 676-5003/2195.

Sincerely,

R. F. CALTA Lieutenant: Colonel, U. S. Marine Corps Base Maintenance Officer By direction of the Commanding General

BCC: AC/S Facilities



MAIN/CDP/spk 11015 : 6 JAN 1982

United States Department of the Interior Fish and Wildlife Service Plateau Building, Room A-5 50 South French Broad Avenue Asheville, North Carolina 28801

Dear Hr. Parker,

Encl

This is in response to your letter of 22 December 1991 requesting copies of violation reports and responses relative to weekly inspections of redcockaded woodpecker habitat conducted 1980-1981 at Marine Corps Base, Camp Lejeune, North Carolina. Enclosures (1) and (2) contain the subject reports with responses as requested for inspections conducted during 1980 and 1981 respectively.

If additional information is desired, please contact Mr. J. I. Hooten, Natural Resources and Environmental Affairs Branch, Base Maintenance, telephone FTS 676-5003.

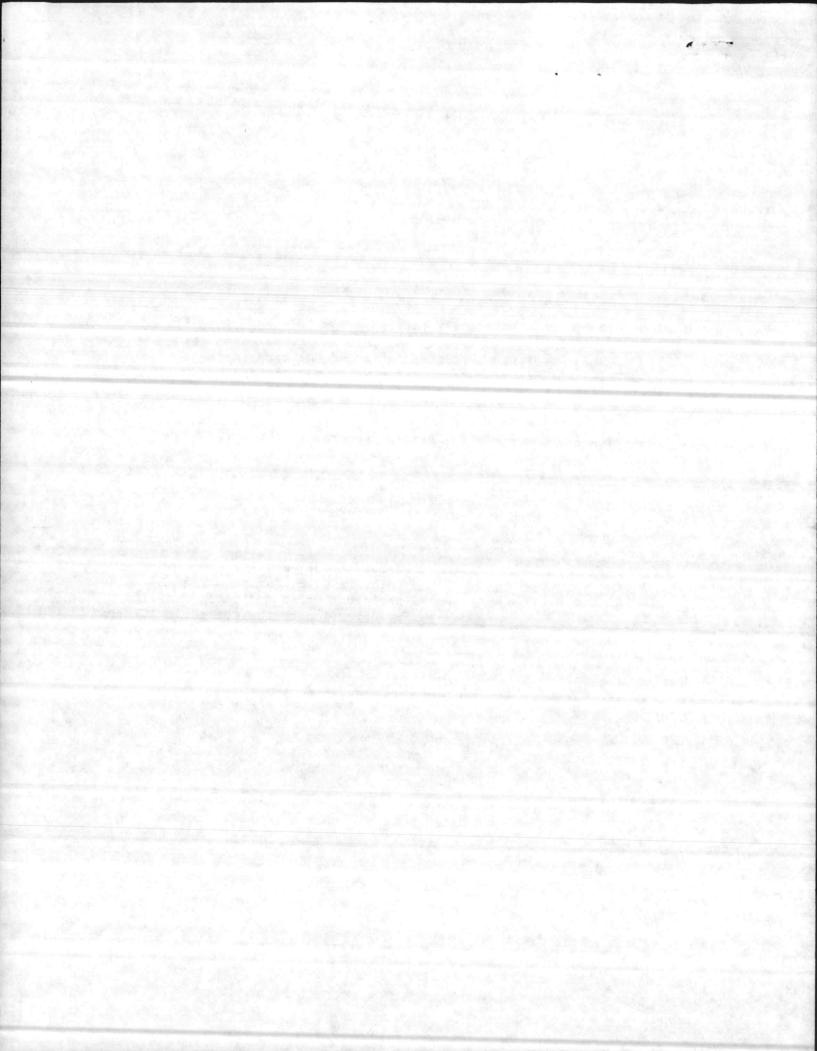
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Sincerely,

K P. MILLICE, Jr.

Colonel, U. S. Marine Corps

Assistant Chief of Staff, Facilities By direction of the Commanding General





United states Department of the Interior FISH AND WILDLIFE SERVICE PLATEAU BUILDING, ROOM A-5 50 SOUTH FRENCH BROAD AVENUE ASHEVILLE, NORTH CAROLINA 28801

December 22, 1981

Major General C. G. Cooper Commanding General U.S. Marine Corps Camp Lejeune, NC 28542

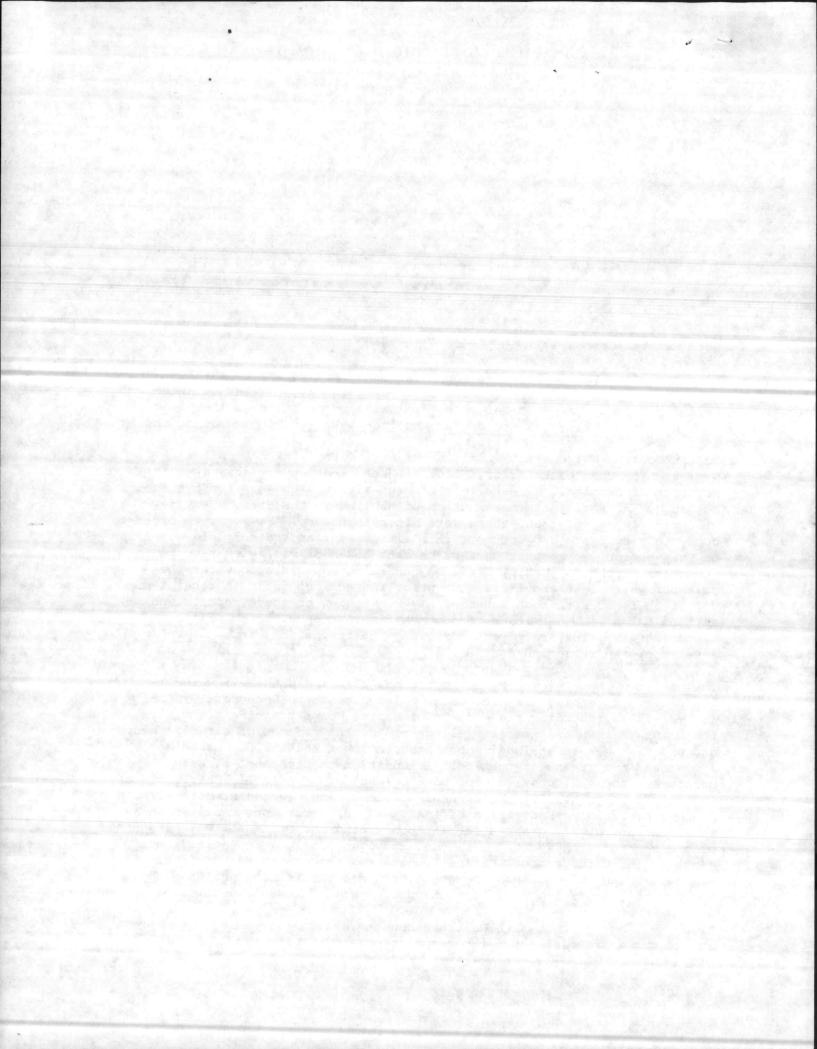
Re: 4-2-78-F-384

Dear General Cooper:

Personnel from this office (Warren Parker and Gary Henry) of the Fish and Wildlife Service conducted a periodic inspection of the Tank/Mechanized Infantry Training Area on December 15, 1981, as specified in the Biological Opinion of June 12, 1979, regarding the red-cockaded woodpecker and the effects of training activities upon the species. They were accompanied by Julian Wooten, Director, Natural Resources and Environmental Affairs Division and Charles Peterson, Wildlife Management Supervisor, in this third periodic inspection. We were very pleased with the obvious improvement regarding indiscriminate destruction of habitat in the area. Very few violations were noted and these were minor in nature. However, in order to completely evaluate and document this improvement and to complete our files on this action, we request that we be sent copes of violation reports and responses of the 2nd Marine Division regarding the violations for the calendar years 1980 and 1981. Our prior inspections included receipt of violation reports through November, 1979. Review of these reports and actions taken will permit us to document improvements, which will be recognized in a letter to you addressing the inspection, and will follow our receipt of the requested documents.

The visit to Camp Lejeune by our personnel also included review and discussions regarding the Biological Opinion rendered December 10, 1981 (4-2-81-198), regarding the effects of Marine Corps training activities on the brown pelican and American alligator and the effects of establishment and use of a new range (Onslow Beach North Tower Machine Gun Range) on the loggerhead and green sea turtles. In addition to personnel already mentioned, these discussions included Colonel J. R. Fridell, Chief of Staff; Colonel F. H. Mount, Base Maintenance Officer; and Lieutenant Colonel E. M. Asanovich, Training Facilities Officer. These discussions resulted in a thorough understanding and agreement concerning the Opinion. Our personnel also discussed with Wooten, Peterson, and Danny Sharpe, Ecologist, the consultation with National Marine Fisheries Services regarding effects of firing live ammunition into the ocean upon sea turtles and whales. Advice was provided regarding consultation procedures and requirements.

As always, our contact with Base personnel was most enjoyable. We express, again, our appreciation for the cooperation and hospitality extended and



continue to view Camp Lejeune as an exemplary example of cooperation and multiple use management on military installations.

Sincerely yours,

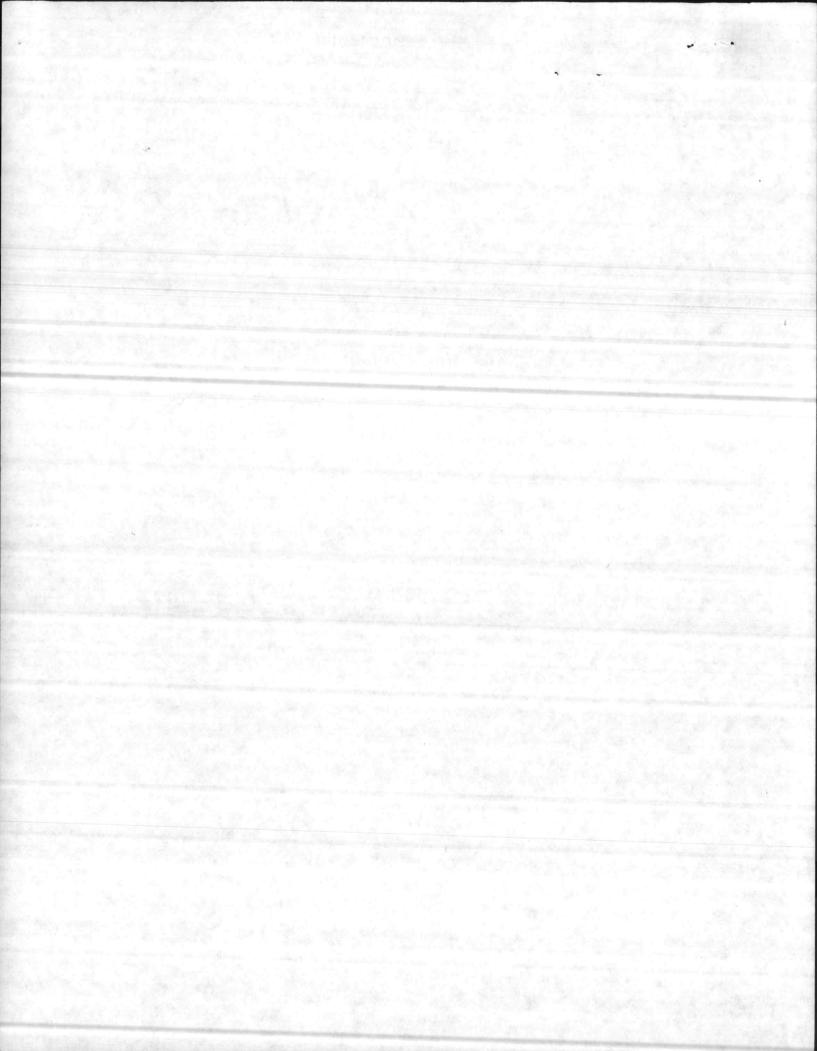
Warren T. Parker Acting Area Manager

cc:

Director, FWS, Washington, DC (OES) Regional Director, FWS, Atlanta, GA (ARD-FA/SE) Project Leader, FWS, Raleigh, NC

*

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United States Department of the Interior

FISH AND WILDLIFE SERVICE ENDANGERED SPECIES FIELD STATION 100 OTIS STREET, ROOM 224 -- ASHEVILLE, NORTH CAROLINA 28801

March 15, 1984

Colonel Ralph A. Luther Director of Engineering and Housing Headquarters XVIII Airborne Corps and Ft. Bragg Fort Bragg, North Carolina 28307

Re: 4-2-84-198

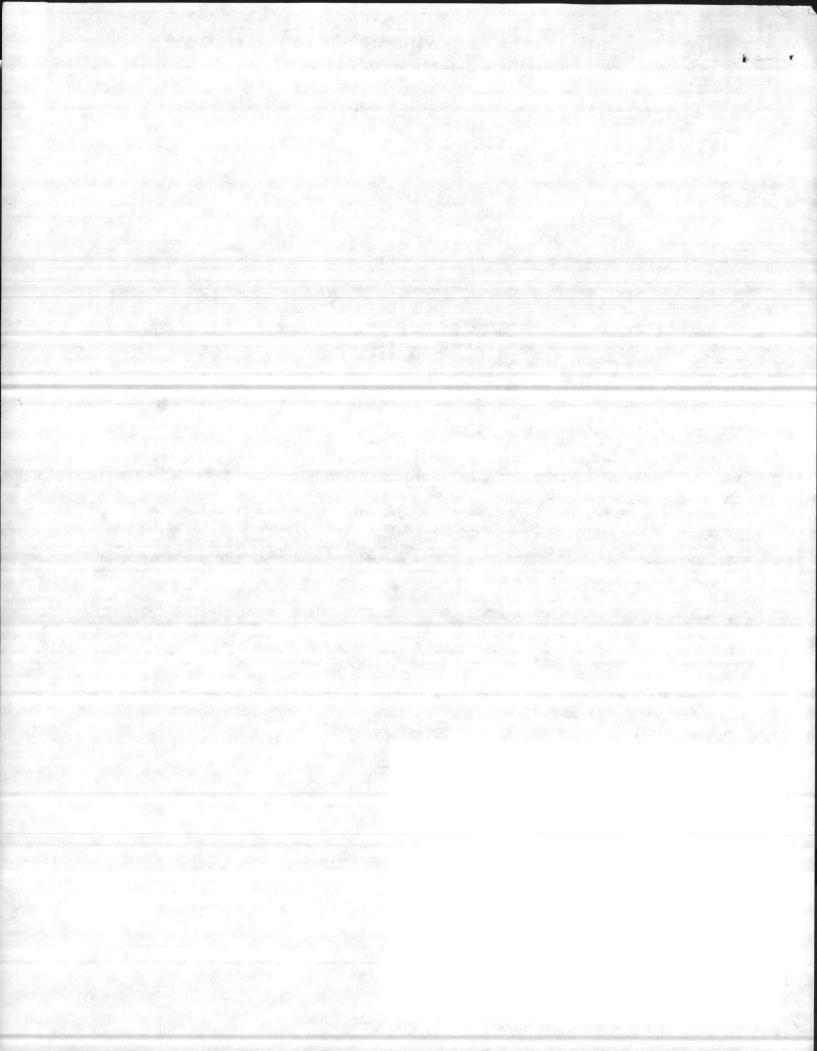
Attached is the final biological opinion regarding the effects of developing a "Multiple Purpose Range Complex" at Fort Bragg on the endangered red-cockaded woodpecker. Response to the draft opinion was received from Fort Bragg March 13, 1984. The only changes of any consequence are changing the number of abandoned colonies to be renovated from all to 6-10 and changing the number of years post-treatment data is needed regarding the study of impacts on the colonies within the proposed range from three to five. Current on-going studies to determine impacts on colonies from habitat disturbances are only starting to get meaningful data after three years; therefore, five years post-treatment study is recommended.

In addition, for your convenience, we have attached proposed study plans for the conservation recommendations made. These study plans have been developed through contact with knowledgeable personnel regarding the species and represent the best efforts to secure meaningful data.

We appreciate the cooperation of both you and your staff in this consultation. If you desire further discussion of the opinion and/or an on-site visit as follow-up, please advise this office.

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en T. Parker Supervisor





United States Department of the Interior

FISH AND WILDLIFE SERVICE ENDANGERED SPECIES FIELD STATION 100 OTIS STREET, ROOM 224 -- ASHEVILLE, NORTH CAROLINA 28801

March 15, 1984

Colonel Ralph A. Luther Director of Engineering and Housing Headquarters XVIII Airborne Corps and Ft. Bragg Fort Bragg, North Carolina 28307

Re: 4-2-84-198

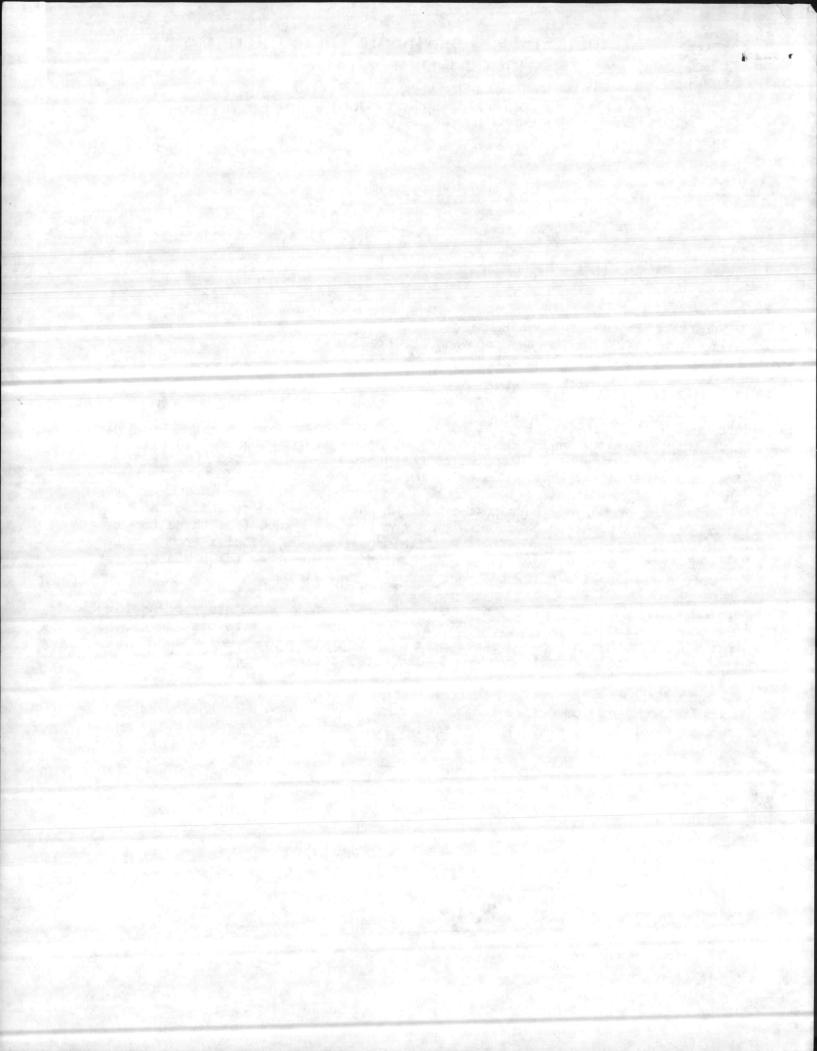
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In addition, for your convenience, we have attached proposed study plans for the conservation recommendations made. These study plans have been developed through contact with knowledgeable personnel regarding the species and represent the best efforts to secure meaningful data.

We appreciate the cooperation of both you and your staff in this consultation. If you desire further discussion of the opinion and/or an on-site visit as follow-up, please advise this office.

Sincerely,

Warren T. Parker Field Supervisor





United States Department of the Interior-

FISH AND WILDLIFE SERVICE ENDANGERED SPECIES FIELD STATION 100 OTIS STREFT, ROOM 224 ASHEVILLE, NORTH CAROLINA 28801

March 15, 1984

Colonel Ralph A. Luther Director of Engineering and Housing Headquarters XVIII Airborne Corps and Fort Bragg Fort Bragg, North Carolina 28307

Re: 4-2-84-198

Dear Colonel Luther:

A. Introduction

This letter presents the biological opinion of the Fish and Wildlife Service regarding the effects of developing a "Multiple Purpose Range Complex" at Fort Bragg, Cumberland County, North Carolina, on the endangered red-cockaded woodpecker (<u>Picoides borealis</u>). It responds to your letter of September 23, 1983, received in this Office October 13, 1983, requesting a field survey of the proposed "Multiple Purpose Range Complex" and initiation of formal consultation. This letter only addresses the consultation requirements of Section 7(a)(2) of the Endangered Species Act of 1973, as amended, and does not address the requirements of other environmental statutes such as the National Environmental Policy Act or the Fish and Wildlife Coordination Act.

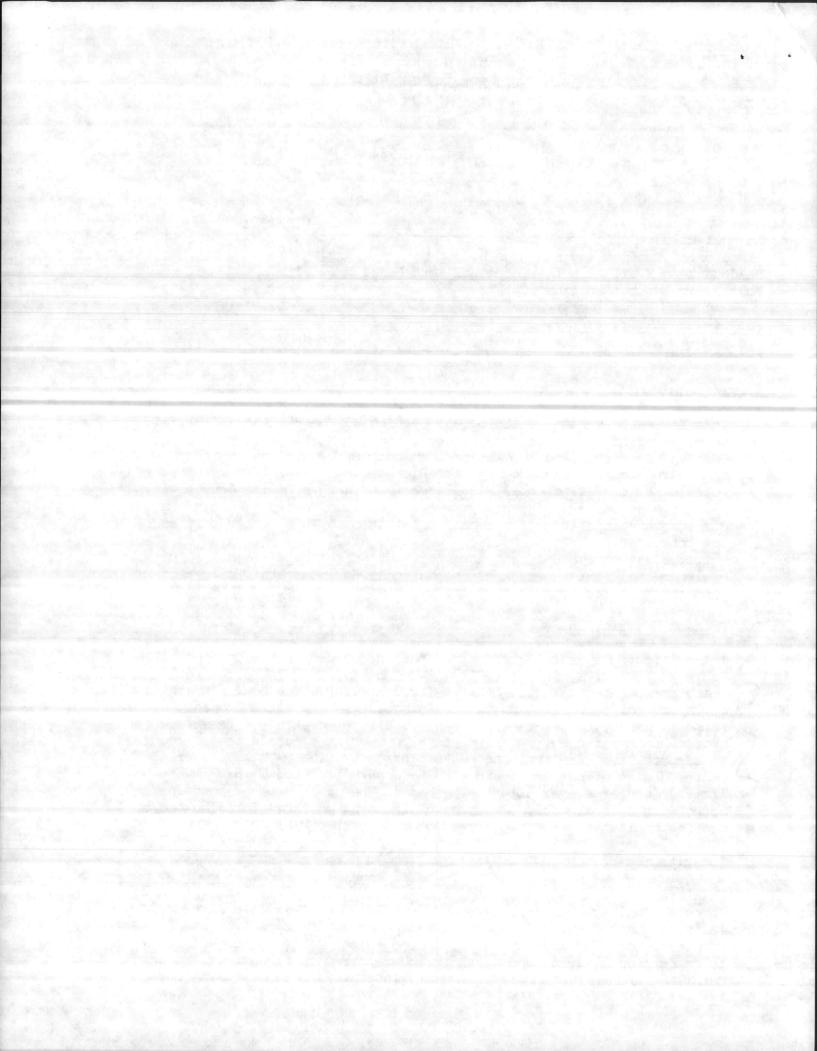
B. Project Description

6891001

The multipurpose training range, to be constructed in the Coleman Danger/Impact Area, is a live fire range containing 330 hard wire computer-operated targets within a 1,000 X 4,600 meter box. The range will be capable of accomplishing all training tasks of a rifle company, a combat support company, and a tank platoon. The incorporation of these weapons systems on one range reduces the total number of separate ranges required to support live fire training on Fort Bragg by five. Thus, this range represents an effort to provide the necessary training within a very limited land area available to the Base. The area involved contains: 1,200 acres with approximately 532 acres of it being suitable foraging and/or nesting habitat for the red-cockaded woodpecker.

C. Consultation History

This consultation was initiated by a September 23, 1983, letter to Mr. James W. Pulliam, Regional Director, U.S. Fish and Wildlife Service. This letter requested a field survey of the proposed "Multiple Purpose Range Complex" and rendering of a biological opinion. This letter was responded to on October 7, 1983, and at that time referred to the Asheville, North Carolina, Endangered Species Field Station for handling. The Asheville



Review of the proposed lines of fire indicates that three colonies encompassing six active cavity trees, one active start and one inactive start will not be directly impacted by firing or necessary removal of trees for firing lanes. The other three colonies (two in the Biological Assessment) will be directly impacted. It is estimated that with current proposed firing lanes and target placements, six active cavity trees, four inactive starts and one inactive cavity tree may be impacted. An additional two active cavity trees, three inactive cavity trees, two inactive starts and one relict within these colonies are not likely to be directly impacted by firing or necessary removal of trees for firing lanes. Four relict trees and two inactive start trees are not within assumed colony sites and only one of the relicts is likely to be lost.

The exact impact likely to occur as a result of the proposed action is difficult to ascertain, especially at this point in time. Discussions with Joe Alderman, G-3 Range Control, on January 17 indicated that evaluation of alternatives concerning movement of targets to eliminate or reduce impacts to red-cockaded woodpeckers to the minimum are ongoing. This is certainly encouraging and should be continued until the alternative having the least impact upon the species is determined and implemented. Also, some trees in the direct line of fire may not need to be removed because trajectories are such that the trees are not a problem. At the maximum, three colonies of woodpeckers, with an estimated eight birds, may be lost as a result of this proposed action. On a base with 227 known colonies and an estimated 273 total colonies, based on present known colonies derived from 83 percent of the habitat, three colonies is only one percent of the estimated population.

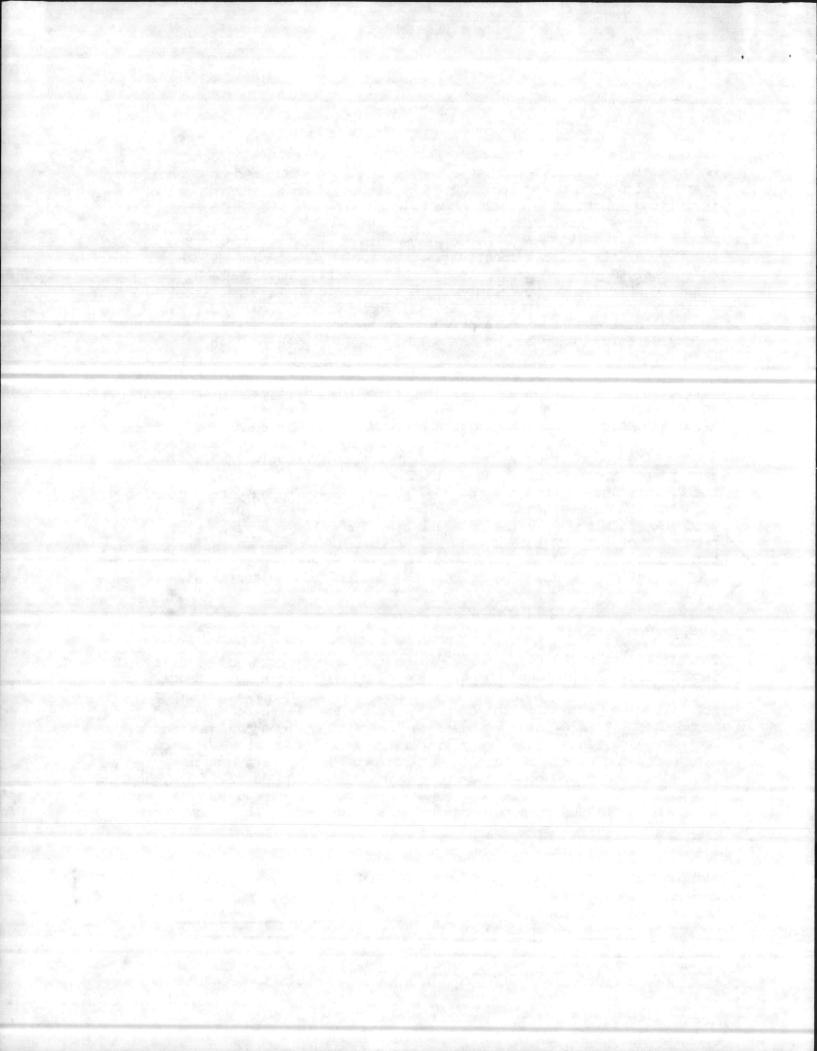
E. Biological Opinion

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Therefore, it is the Biological Opinion of the U.S. Fish and Wildlife Service that the proposed construction of a "Multiple Purpose Range Complex" on the Coleman Danger/Impact Area and its cummulative impacts are not likely to jeopardize the continued existence of the red-cockaded woodpecker. This opinion is based on field inspections and meetings with Fort Bragg personnel on January 16-17, 1984; review of the Biological Assessment and other literature and data provided by Fort Bragg; review of the Red-cockaded Woodpecker Recovery Plan approved August 24, 1979, and the draft revised Recovery Plan currently being completed; and contacts with individuals possessing knowledge of the species and/or the area involved.

F. Conservation Recommendations

Although the proposed action is considered non-jeopardy, it likely will result in loss of habitat, and directly or indirectly, loss of colonies and the included individual birds. The Fish and Wildlife Service and cooperating agencies are implementing actions in attempts to recover the species to the point that provisions of the Endangered Species Act are no longer necessary and the species can be delisted. Obviously, we can not recover the species unless we maintain current populations and expand these



populations to a recovery level. Therefore, any loss is undesirable and, when they occur, we should attempt to make the most of the situation by minimizing the impacts as much as possible, gaining information that will help us understand the bird's ecology and tolerances so that we are more knowledgeable in evaluating future impacts on the species, and offsetting the losses by gains elsewhere when possible. Therefore, we offer the following conservation recommendations for your consideration and hopeful implementation:

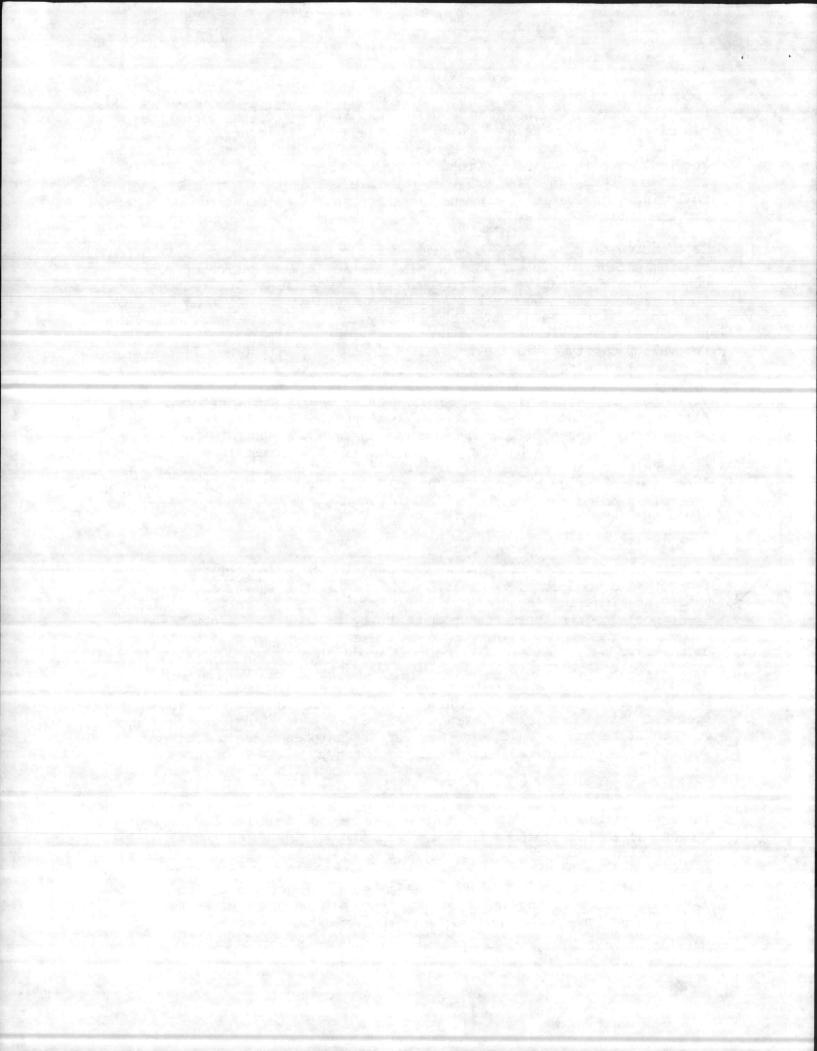
1. Clearing of pine trees for range construction should be minimized to the maximum extent possible. Inherent in this is the evaluation of every conceivable alternative for target location to eliminate or reduce impacts to the red-cockaded woodpecker from necessary clearing of foraging and/or nesting habitat. As a matter of priority, an alternative resulting in femoval of non-cavity trees is preferable over an alternative resulting in removal of cavity trees and removal of inactive cavity trees is preferable to removal of active cavity trees.

2. To possibly offset losses occurring as a result of the proposed range, Base personnel should renovate 6-10 abandoned colony sites on the Base by actively managing them to reduce or eliminate adverse habitat conditions and enhance desirable habitat conditions. This may result in reoccupation of these sites and an increase in colonies that will equal or exceed the loss from the proposed action. Included in this is understory removal and control in colony sites, prescribed burning of colony sites on a regular basis and raking around cavity trees prior to prescribed burning. A study proposal is attached to this opinion.

3. There is a paucity of information regarding tolerance of the red-cockaded woodpecker to disturbances and habitat losses and manipulatations and the species' behavior and adjustments to such impacts. The proposed action presents an opportunity to shed some light on these subjects. Therefore, we recommend that a study be conducted on the six colonies present in the area (proposed study plan attached). This study should include two years of pre-treatment data on clan composition, reproduction, home range and movements and five years post-treatment data on the same subjects. This will hopefully result in documentation of the species' reaction to such impacts and a better understanding of the impacts of such disturbances on the species and its maintenance and recovery. Permits will be required to conduct this study.

G. Incidental Take

The 1982 amendments to the Endangered Species Act requires addressing of incidental taking expected from proposed actions for which formal consultation is being conducted. The amount of incidental take that is possible and would not be a violation of the "taking" prohibitions of Sections 4(d) and 9 of the Act is estimated at eight birds. The impact upon the species is the direct loss of three colonies of birds and the resulting adverse impact and delay in recovering the species.



Reasonable and prudent measures that are considered necessary to minimize such impact are those actions specified in Conservation Recommendations 1 and 2. Implementation of these measures should be initiated upon reciept of this Biological Opinion and will terminate when a final decision is made on location of targets and trees needing removal for Recommendation 1 and when the five-year renovation study is completed for Recommendation 2. Any dead or injured red-cockaded woodpeckers should be reported immediately to this office and to James R. Bailey, Senior Resident Agent; U.S. Fish and Wildlife Service; P.O. Box 1188; Raleigh, N.C. 27602; telephone 919/755-4786. Dead birds can be frozen. Further instructions for handling and disposal will be forthcoming from this office upon notification that a dead or injured bird has been obtained.

In order to monitor the impacts of individual take, you must submit an annual report to be filed no later than March 31 for the preceding calendar year ending December 31, to this office. This report should reference the action, the consultation number, and summarize the progress as well as listing the data, location, circumstances surrounding any taking of the red-cockaded woodpecker, and the disposition of individual birds. Of particular importance and to be included in the report, is the date the recommendations are implemented and the date, circumstances, and any other pertinent information regarding any reoccupation of renovated, abandoned colony sites.

If, during the course of the action the amount or extent of incidental taking, as specified herein, is exceeded, formal consultation must be reinitiated. In the interim, development of the action may continue unless the Fish and Wildlife Service determines that the impact of any additional taking would cause a significant adverse impact on the species and provides written findings supporting that determination.

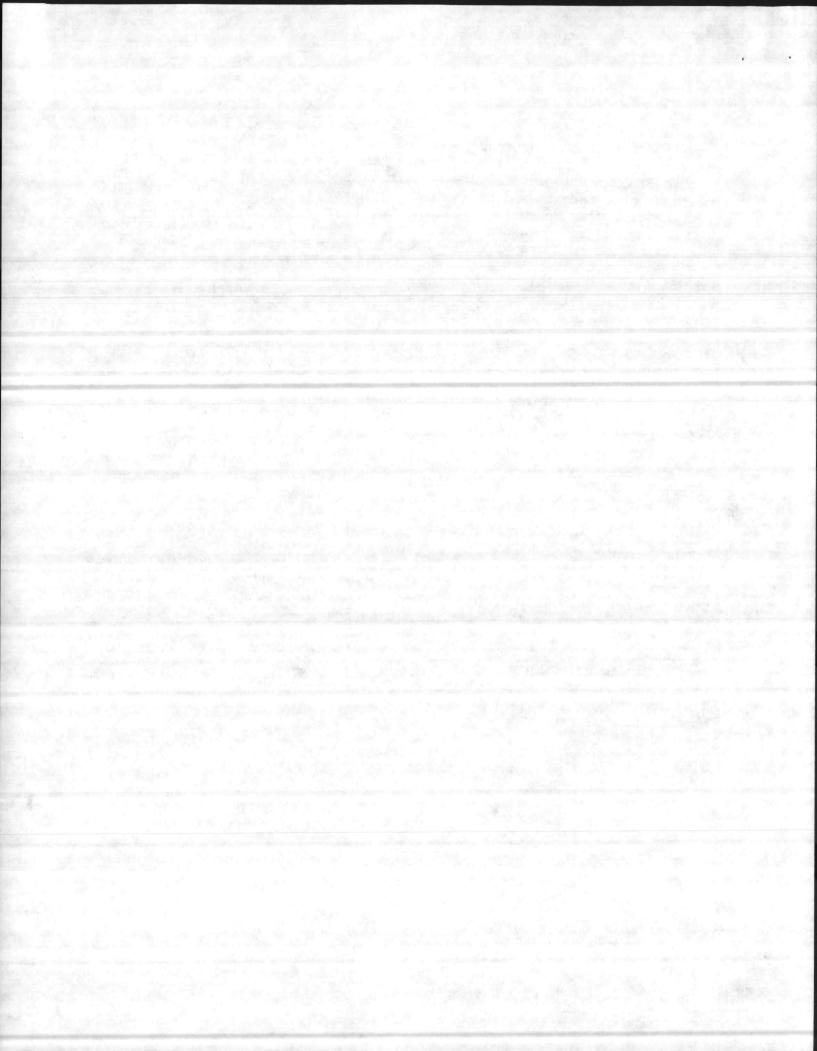
If you wish to discuss further the conservation recommendations contained in the Biological Opinion, please advise this office. This consultation will conclude when we receive written notification from you stating your final decision of the proposed action and implementation of the conservation recommendations.

We appreciate the assistance of Fort Bragg personnel in this consultation and look forward to continued cooperation between our agencies.

Sincerely,

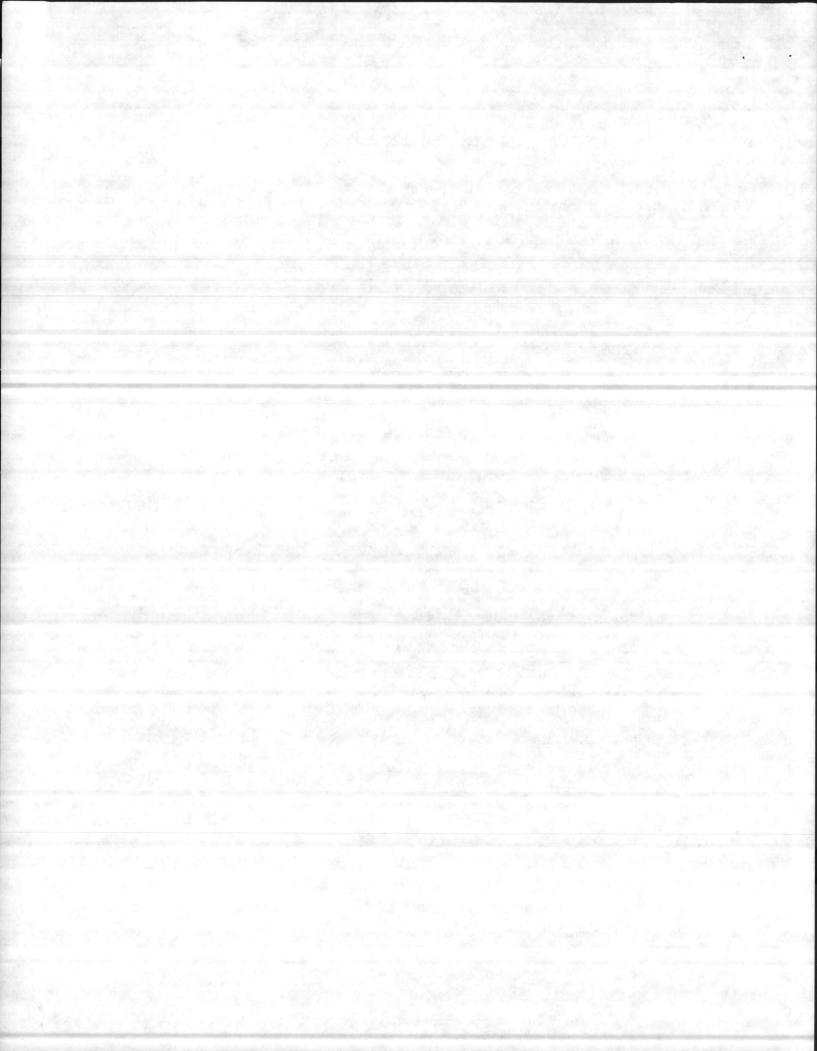
Warren T. Parker Field Supervisor

cc: Regional Director, FWS, Atlanta, Ga. (AFA/SE) Director, FWS, Washington, D.C. Ron Bailey, SRA, Raleigh, N.C.



Literature cited

Harlow, Richard F., Robert G. Hooper, and Michael R. Lennartz. 1983. Estimating numbers of red-cockaded colonies. Wildl. Soc. Bull. 11(4):360-363.



Proposed Study Plan

Monitor Impacts of Removal of Cavity Trees and Foraging

Habitat on the Red-Cockaded Woodpecker

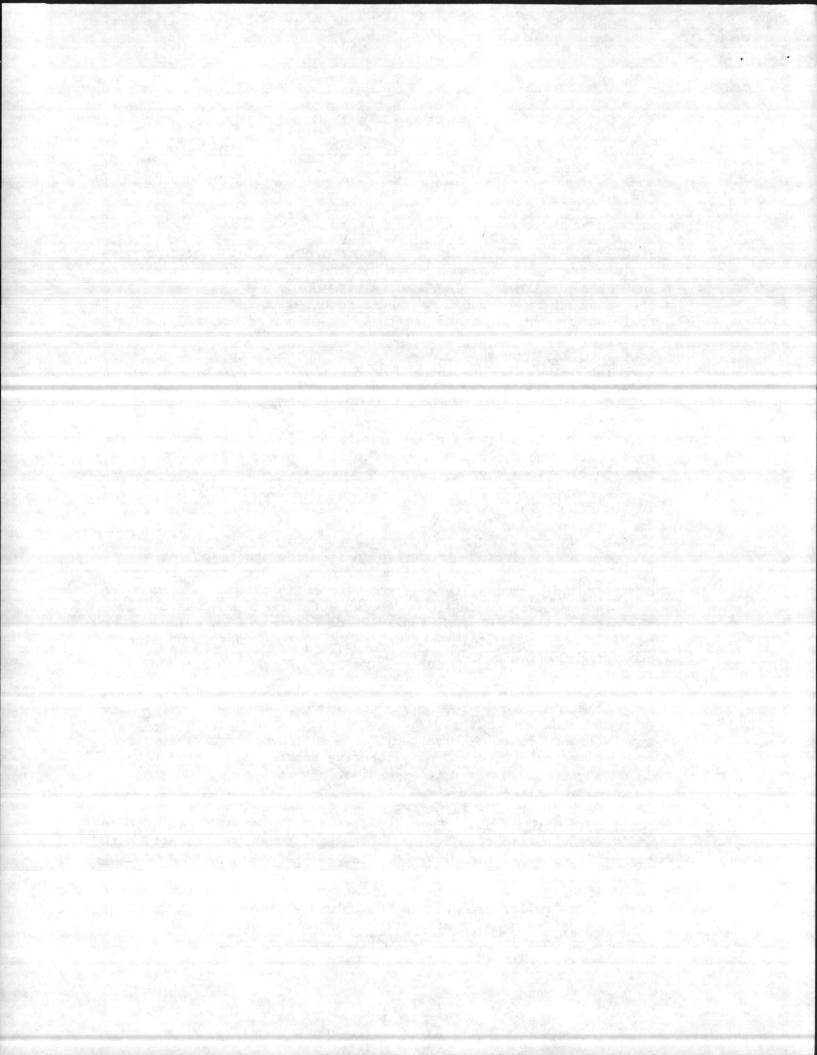
- Introduction

Fort Bragg, North Carolina, has proposed developing a multipurpose training range, to be constructed in the Coleman Danger/Impact Area in Cumberland County. The construction of such a range would reduce the total number of separate ranges required to support live fire training on Fort Bragg and is, thus, an effort to provide the necessary training within severe land availability constraints. The area involved contains 1,200 acres with approximately 532 acres of it being desirable foraging and/or nesting/roosting habitat for the red-cockaded woodpecker.

Fort Bragg initiated formal consultation pursuant to Section 7 of the Endangered species Act of 1973, as amended, on November 4, 1983, by submitting a biological assessment to the FWS. As a result of the consultation, a conservation recommendation to study the impacts of the proposed action on the red-cockaded woodpecker was included in the Biological Opinion rendered March 15, 1984.

Possible direct impacts to red-cockaded woodpeckers from the proposed action include reduction in foraging and/or potential nesting/roosting habitat and loss of active cavity trees by removal of trees and/or mortality of trees from activities occurring on the area, noise disturbance from proposed activities and possibly even the direct killing of individuals. The effects of such impacts may be manifested by mortality of individuals, reduced reproduction, abandonment of current home ranges, or shifting of current home ranges.

An estimated six colonies of rel-cockaded woodpeckers occur in the area and a January 17, 1984 tree status check identified 14 active cavity trees, four inactive cavity trees, five relict cavity trees, one active start tree and nine inactive start trees, for a total of 33 cavity trees in all. It is estimated that three colonies encompassing six active cavity trees, one active start tree and one inactive start tree will not be directly impacted by loss of nesting/roosting habitat (cavity trees). The other three colonies will likely be impacted by loss of nesting/roosting habitat. With current proposed firing lanes and target placements, it is estimated that these three colonies may lose six of eight active cavity trees, one of four inactive cavity trees, and four of six inactive start trees. One relict tree within one colony will not be impacted. Four relict trees and two inactive start trees are not within assumed colony sites and only one of these relicts is likely to be



lost. All of the colonies may be impacted by loss of foraging habitat.

Currently, there is a paucity of information regarding tolerance of the red-cockaded woodpecker to disturbance and habitat losses and manipulations and the species' behavior and adjustments to such impacts. The development of the proposed multipurpose training range presents an opportunity to shed some light on these subjects. This study is proposed to avail curselves of this opportunity.

II. Objectives

The objectives of this study are to determine changes in clan composition, reproduction, and possibly home range, in relation to reductions in nesting/roosting and foraging habitat of the red-cockaded woodpecker within the proposed multipurpose training range at Fort Bragg.

III. Approach

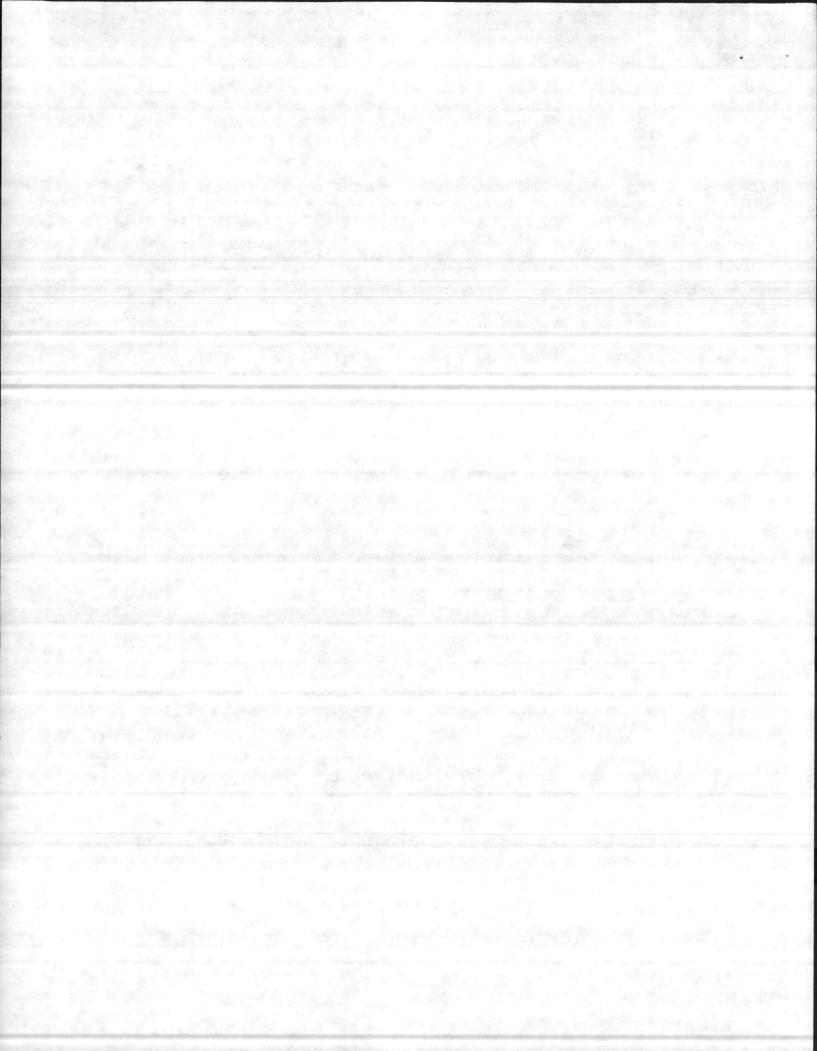
Determining home ranges and foraging habitat is time consuming and expensive. Therefore, it was determined that indirect measures of available habitat would be more cost effective. Prior to removal of any trees, the present stands will be characterized and mapped by forest cover type, condition class, age by 10-year age classes and basal area. Acreage of pine and pine-hardwood stands over 30 years of age will be summed for an estimate of available foraging habitat. Acreage of pine and pine-hardwood stands over 60 years of age will be summed for an estimate of available nesting/roosting habitat. Pine and pine-hardwood stands in adjacent areas within 2,000 feet of the assumed colonies within the area to be developed for the range will be included to arrive at a more reasonable estimate of foraging habitat for those colonies on the border of the area.

A modified home range study will be conducted by sampling a couple of days per quarter (seasonally) to get some idea of habitats utilized.

The amount of available foraging and nesting/roosting habitat after range development and resulting tree removal will be determined and percent reductions calculated.

Cavity tree status will be determined by visiting all trees on a biannual basis, once in late fall after loaf fall and once in spring prior to breeding season, and recording status. All trees present now and in the future will be import.

Birds within the study area (6 clans) will be banded with standard FWS numbered bands and color bands.



Beginning April 30, all active trees will be visited weekly until nest trees are located. Once located, these trees will be climbed weekly until fledging, using ladders, mirrors and drop lights to count eggs and nestlings. Clan composition will be determined by counting the number of adults observed in the vicinity of the nest during weekly visits. The number of young fledged will be determined which, basically, will be considered the number of feathered young observed during the last 10 days of the nesting period. However, there may be some difficulty in determining the number of fledglings in a cavity, as they grow older. Therefore, an additional check of fledgling success and the number of adults in the clan will be made within one week (3 or 4 days, if possible) following fledging by following the clan during foraging activities -and counting and identifying adults and fledglings. Clan composition and reproduction data will be obtained for two years before treatment and for five years following treatment.

Shifting of home ranges and/or territories is expected to occur. Therefore, in order to document such shifting and to obtain survival data, nearby (adjacent to, but not included in the range area) colonies will be censused annually during the winter to determine clan composition and to identify marked birds from the colonies impacted by the range construction. This can be done by evening colony checks as birds are coming to roost, by morning checks as the birds leave the colonies for feeding and/or traversing the area until clans are located by vocalizations and then following them until data is obtained.

Annual reports will be prepared and, at the end of the five-year study, the results will be analyzed and a final report prepared. The final report will include data interpretation, recommendations for future studies, and recommended management implications and application. A copy of annual reports and the final report will be provided to the Asheville, N.C., Endangered Species Office of the Fish and Wildlife Service.

IV. Summary of Tasks

1. Determine stand characterists and map stands before any vegetation manipulation.

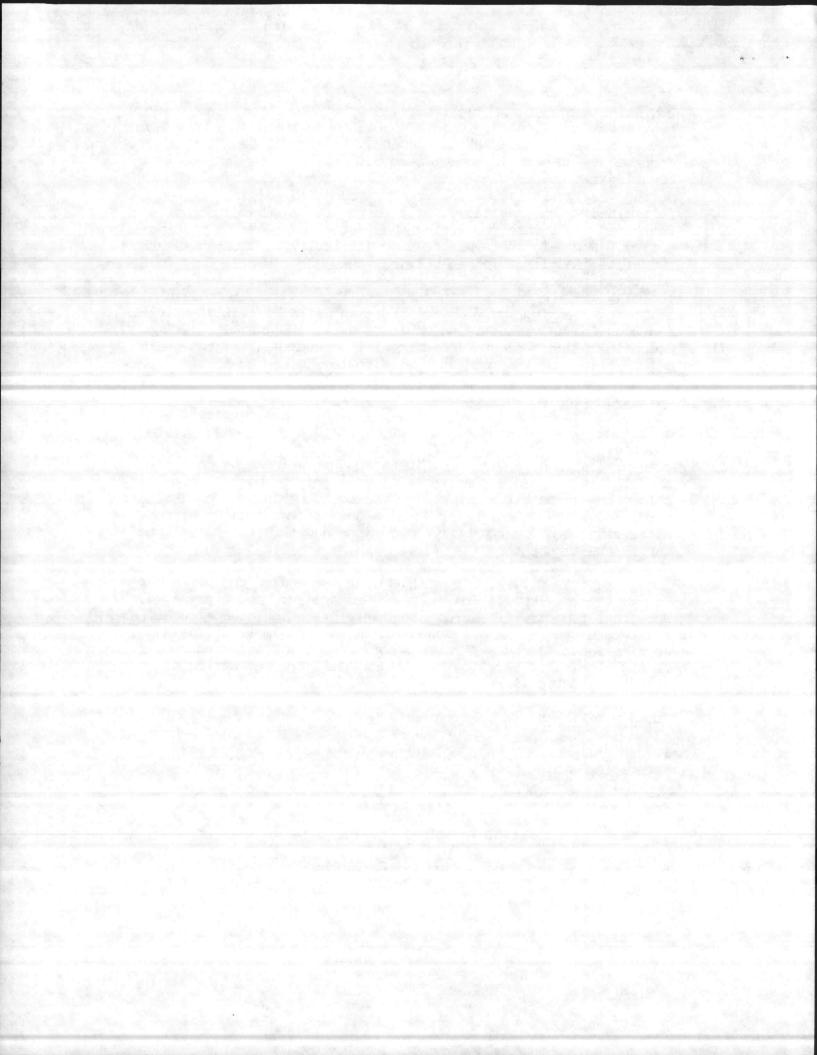
2. Determine available foraging habitat.

3. Determine available nesting/roosting habitat.

4. Determine individual tree status biannually.

5. Band and color-mark birds.

6. Locate nest trees annually.



7. Determine clan composition annually.

8. Determine number of eggs laid and hatched annually.

9. Determine number of young fledged annually.

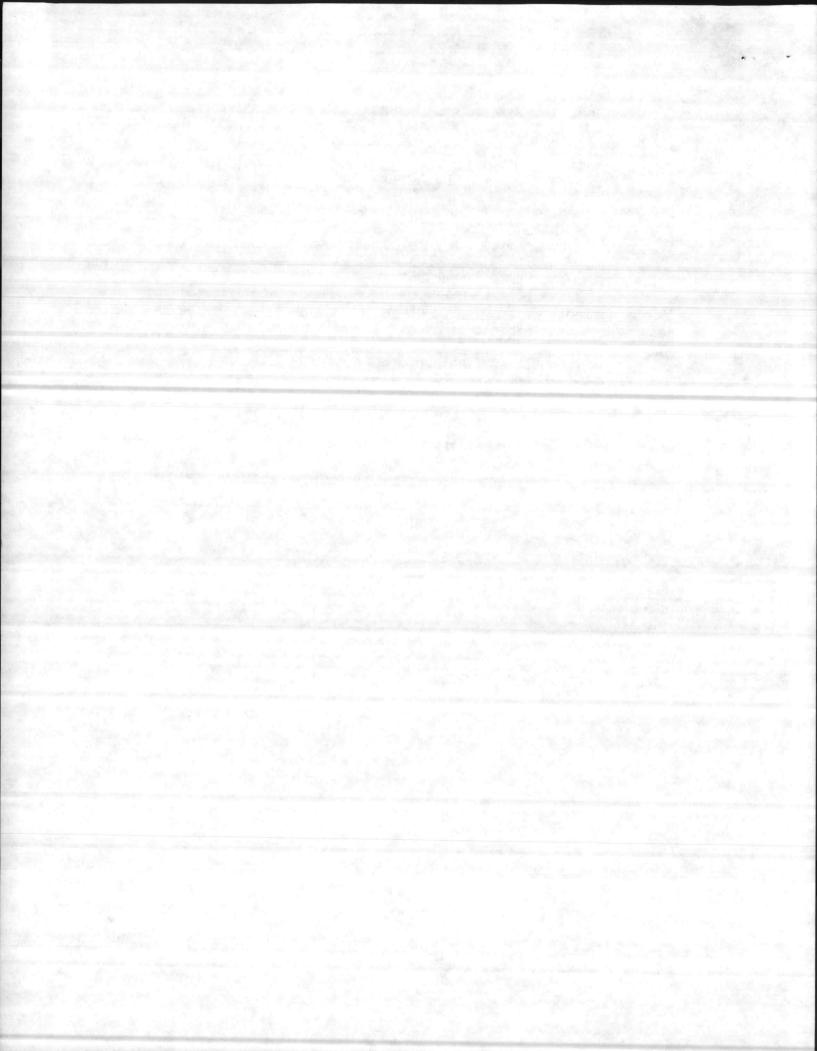
10. Post-fledgling census of adults and fledglings

11. Modified home range study to determine areas used

12. Annual census of adjacent colonies

13. Determine amount and percentage of available foraging and nesting/roosting habitat removed.

14. Prepare annual and final reports.



Proposal for

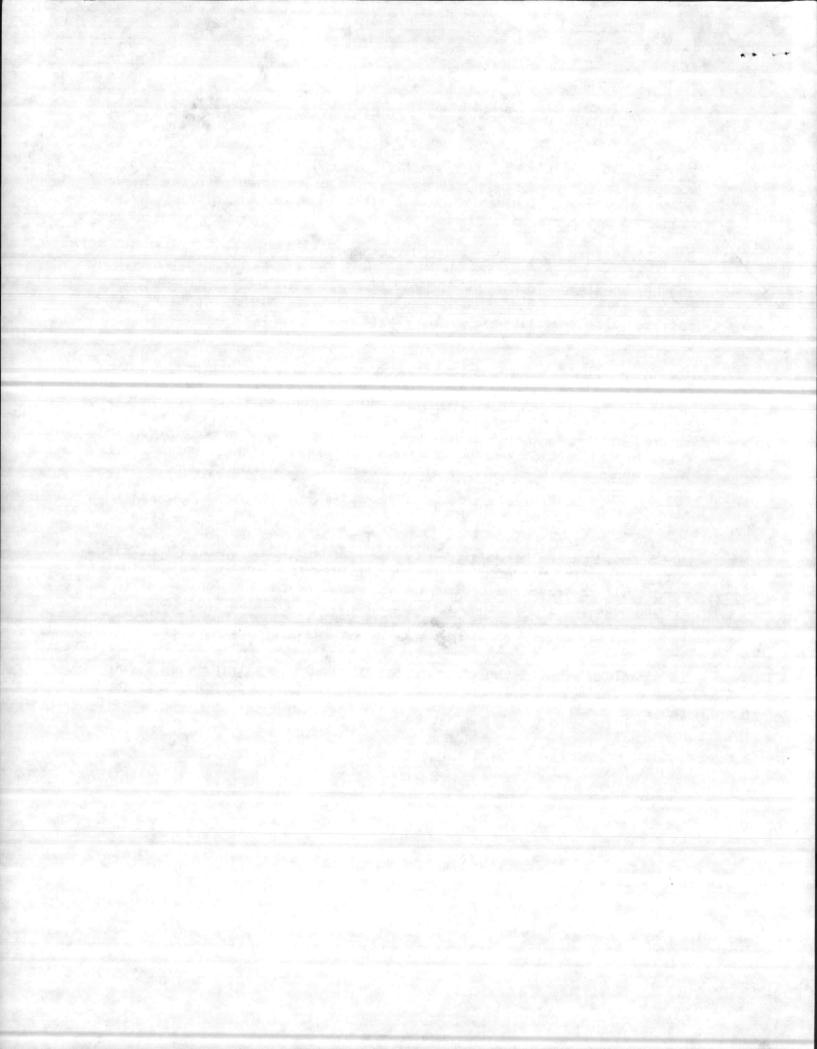
Renovation of Abandoned Rod-Cockaded Woodpecker Colony Sites

I. <u>Purpose</u>: To provide suitable nesting/roosting habitat for red-cockaded woodpeckers for recruitment of new colonies or shifting of present colonies by vegetation manipulation in the immediate vicinity of abandoned red-cockaded colony sites.

Justification: Most abandoned red-cockaded woodpecker colony sites are believed to have been abandoned because of the lack of vegetation control in the immediate vicinity of the cavities. The encroaching vegetation may obstruct easy access to the cavity by red-cockaded woodpeckers and/or increase interspecific competition by providing habitat conditions suitable to other species.

Approach: Abandoned red-cockaded woodpecker sites on Fort Bragg, North TII. Carolina will be located. Six to ten of these sites, 10 to 25 acres in size, within 1,900 to 2,400 feet of active colonies, if possible, will be selected for intensive renovation. The colony site (cavity trees and buffer) will be centered within the 10-25 acre area when possible. Overstory and midstory stand conditions before and after treatment will be determined by prism, i.e., size and number of stems per acre by species and spacing between stars. All hardwood stars within the area will be removed or injected. This will be followed by a prescribed burn one year after treatment for removal of hardwoods and at three year intervals thereafter. The romaining pine overstory will be thinned to a 20-25 foot spacing between trees. The stands will be checked four times per year for red-cockaded woodpecker activity for five years. A final report will be prepared to include a summary of the results, recommendations for further research and recommendations for management application of results. A copy of this report will be provided to the Asheville Endangered Species Office in Asheville, North Carolina.

If possible, some of the stands selected should be within 1,900-2,400 feet of the active colonies within the proposed multipurpose training range to be developed in the Coleman Danger/Impact Area.



HISTORY OF PROTECTION OF RED-COCKADED WOODPECKER ABOARD CAMP LEJEUNE

The red-cockaded woodpecker (Picoides Boarealis) was placed on the National List of Endangered Species in 1969. Conservation efforts by Camp Lejeune began in 1968. Original efforts were limited to mapping, marking and protection of cavity/nesting trees, but with official designation, conservation efforts were expanded to include maintenance and protection of colony sites and habitat.

These first efforts gradually resulted in the marking of cavity/ nesting trees at colony sites and the posting of metal signs. These efforts were deemed sufficient to protect the species, including colony sites in the MIT area, based on the level of training activities which then existed in that area. Since approximately 1948 the area had been used for a variety of training scenarios with various roads, trails and firing positions being well established and well marked very 'early on. These activities increased significantly starting in 1952 when the Combat Town complex was completed. Since that time the types of training remained basically unchanged until 1975, with the level of training fluctuating with operational requirements.

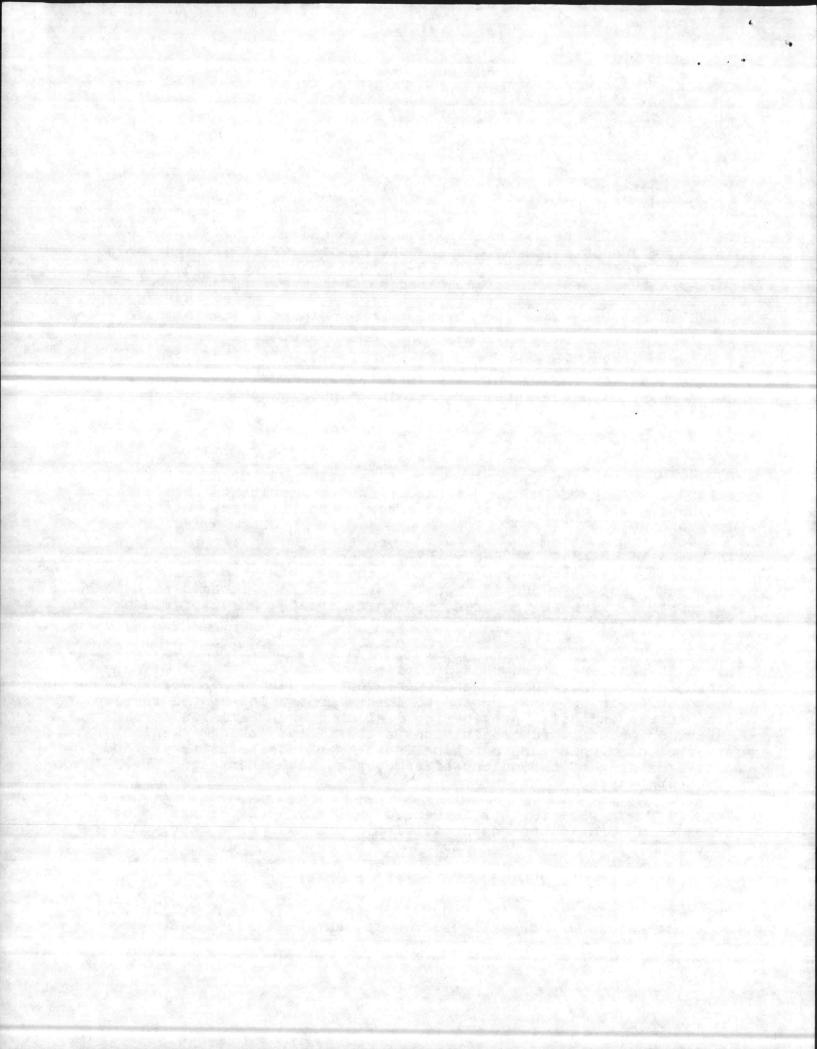
In 1975 establishment of the MIT area was proposed. Because the species' presence in the area was known, a careful environmental review was conducted prior to the designation of the area for mechanized infantry training. It was noted that limits to be applied to training would result in minimal interference with the species and its habitat.

It was also noted in 1975 that the proposed MIT area comprised a total of 3,251 acres with a topography of longleaf pine ridges interspersed with swamp and bay-pocosin areas. There are four managed fish ponds which still exist in the area, and there are 334 acres of old-age longleaf pine which contain 30 percent of the Camp Lejeune population of the red-cockaded woodpecker.

Since it was recognized that unlimited utilization of the MIT area by mechanized infantry could result in eventual destruction of the area, reasonable limits were imposed to insure protection of the species and its habitat and still provide for realistic and meaningful training. These limits included prohibitions against bivouacking in colony sites, any type of digging or trenching in the marked habitat areas, and improved marking of the colony sites coupled with increased surveillance of habitat areas.

These efforts were further augmented by issuing guidelines to using units which prohibited any activities in the MIT area that would result in alteration or degradation of the species' habitat, a prohibition against damage to vegetation larger than sapling size, and restriction of all vehicles to existing roads and trails.

The next significant step occurred in April 1977 when technical assistance was sought from the U.S. Fish and Wildlife Service in



evaluating the problems connected with the MIT area. Three specific recommendations were made by the Service, all of which were implemented by Camp Lejeune starting in May 1977.

a. Camp Lejeune began the maintenance of at least 100 acres of contiguous forest, including the colony site and support stands, that were 40 years of age or older. This requirement was to provide the species with replacement cavity trees and additional feeding and roosting areas.

b. Tanks, heavy machinery and other major disturbances were prohibited within 400 feet of any nest tree during the species' nesting and brood rearing period, March through July. Nesting trees were already well marked.

c. Increased enforcement and supervision of these new requirements was initiated.

As part of its overall efforts, Camp Lejeune identified the species' sites throughout the base and began an extensive relabeling of the sites within the MIT area. All sites within the MIT area are now marked by 12" x 12" metal signs, along the outer boundaries of contiguous habitat, clearly indicating the presence of the endangered species and the prohibition against disturbing its habitat. Buffer zone signs posted around cavity trees depict the colony site so that even the most casual onlooker could recognize the nesting area of the species if sighted.

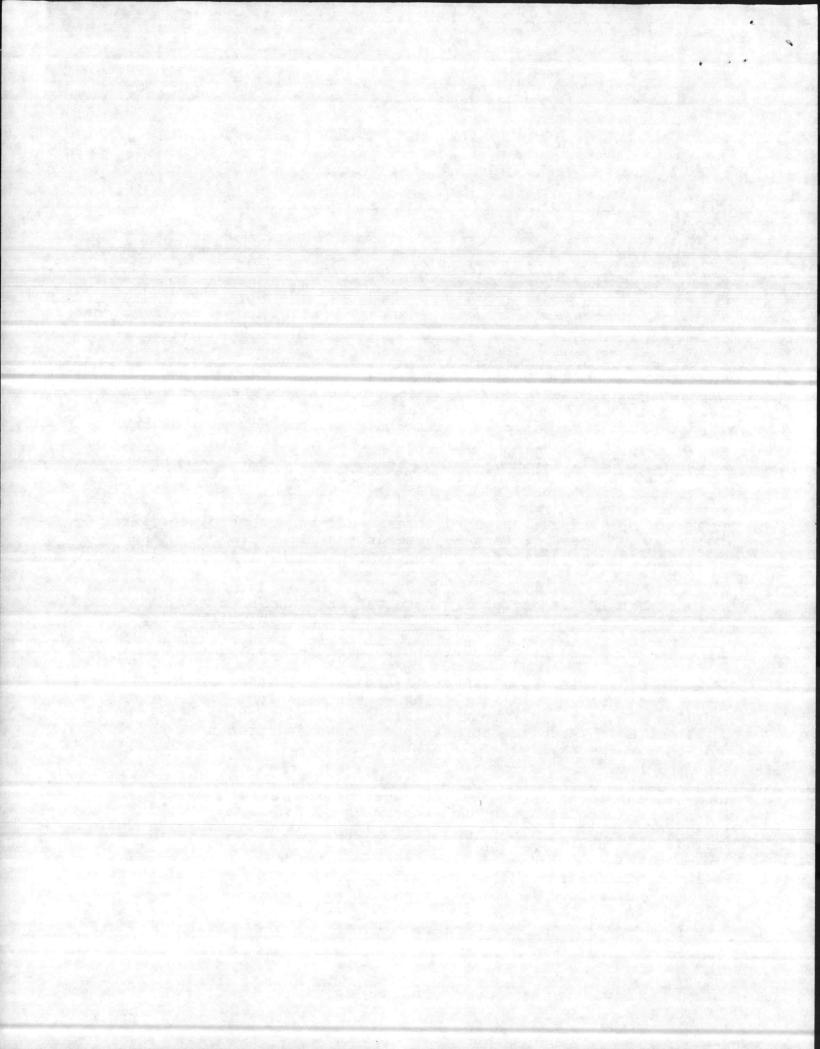
Meanwhile plans were initiated to mark all the other sites of the species on the rest of Camp Lejeune in a similar manner. In addition, on-site inspections throughout the base, but especially the MIT area, were greatly increased.

On September 13, 1978, formal consultation with the U.S. Fish and Wildlife Service was requested. The consultation was received on 1 February 1979 and has prompted this submission. The specific guidelines imposed by the Service included the following:

a. Prohibition of all major training activities in the MIT area from March through July, including prohibition from firing from Gun Position 21, which is within the MIT area, and from Gun Positions 3, 6 and 10, which are located near other species sites at 9242, 9038 and 9537, respectively.

b. Prohibition from normal field training activities within the marked areas including cutting or destruction of woody vegetation, digging of foxholes, trenches and garbage pits, laying underground communication lines or any activity significantly disturbing the soil, and bivouacking within the areas.

Re-initiation of formal consultation was requested by the Deputy Under Secretary of the Navy on 30 March 1979. An amended biological opinion was issued by the Fish and Wildlife Service on 12 June 1979 which Marine Corps Base began implementing.



A Base Order was implemented on 7 June 1979 setting forth regulations and establishing responsibilities to ensure conservation of the redcockaded woodpecker. The order established weekly inspection intervals for improved monitoring of the MIT area. Specific regulations are as follows:

a. Within the contiguous habitats of the red-cockaded woodpecker (marked by one white stripe painted on trees and signs stating "Restricted Area Endangered Species"):

PROHIBITED ACTIVITIES

(1) Movement/introduction of tracked vehicles expect on existing/designated trails. The establishment of any new trails must be approved by Base Natural Resources Department (NRD) prior to use.

(2) Artillery firing (gun positions) within 200 meters of a cavity tree.

(3) Cutting of woody vegetation except in areas designated by NRD.

AUTHORIZED ACTIVITIES

(1) Movement/introduction of wheeled vehicles.

.(2) Establishment of command posts at sites approved/designated by NRD.

(3) Establishment of bivouacs.

(4) Judicious digging/excavation which does not cause root damage.

(5) Use of tracked vehicles on existing/designated trails.

(6) LVTC-7 entry into command post sites which have been predesignated.

(7) Designation of new trails after approval of NRD.

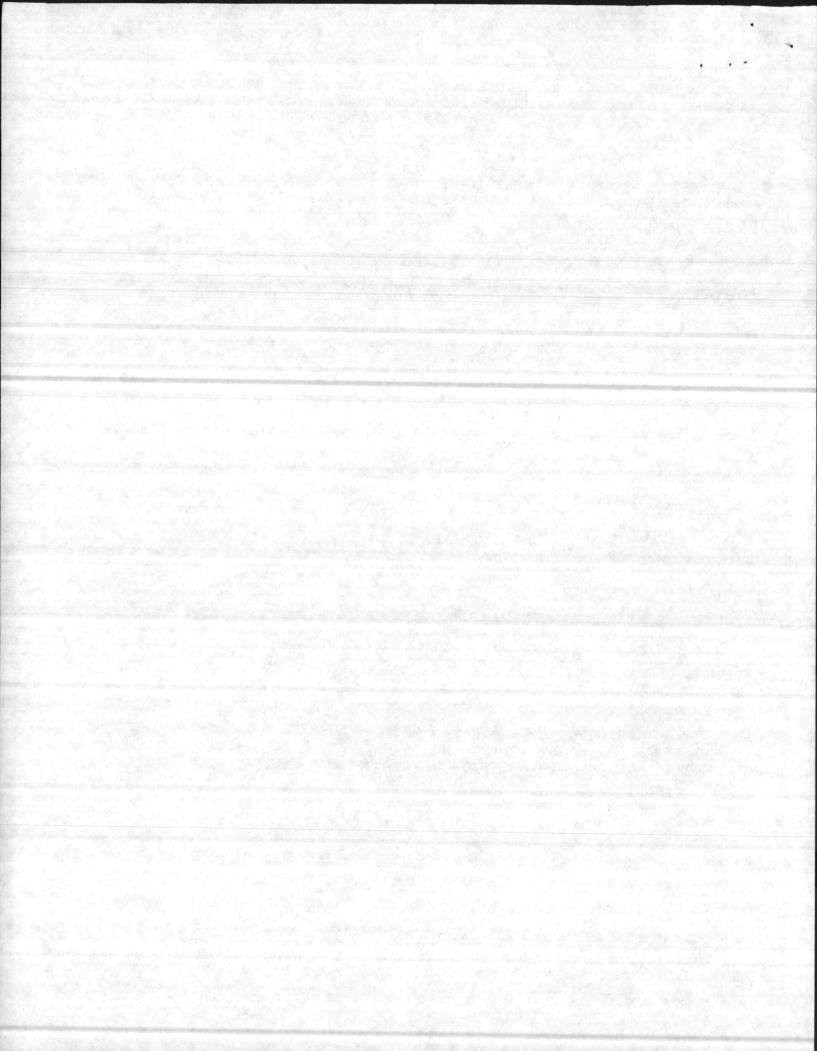
. b. Within the red-cockaded woodpecker colony buffer zone (marked by two white stripes painted on trees and signs depicting a woodpecker and stating "Endangered Species Buffer Zone"):

PROHIBITED ACTIVITIES

(1) Tracked and wheeled vehicle movement/operations except on established/designated trails.

(2) Establishment of bivouacs.

- (3) Establishment of CP's.
- (4) Digging/excavation.



(5) Cutting woody vegetation.

(6) Artillery firing (gun positions).

AUTHORIZED ACTIVITIES

(1) Unrestricted movement by foot troops.

(2) Tracked and wheeled vehicle operations on established/ designated trails.

(3) Blank small arms firing.

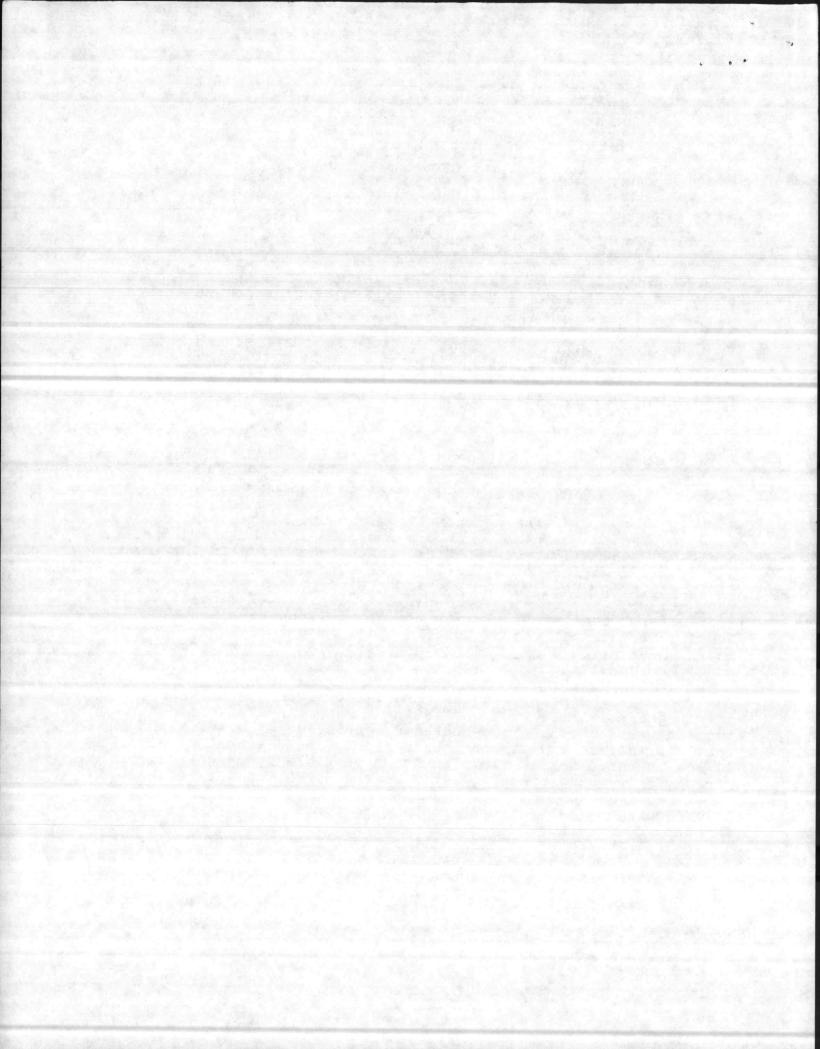
The 2d Marine Division drafted a Candidate Environmental Impact Statement (CEIS) and staffed it to Natural Resources and Environmental Affairs Division (NREAD) in July 1979. Problems with the draft copy (CEIS) were surfaced by NREAD and efforts were made to make necessary changes with a representative of 2d Marine Division. Changes to the draft copy (CEIS) were made on 27 July 1979 with the work being completed within four working hours due to the submission deadline. The CEIS was considered lacking in both scope and context.

The Environmental Impact Review Board (EIRB) met on 27 July 1979 for the purpose of reviewing the draft copy (CEIS). The EIRB concurred with the draft CEIS which the Commanding General, Marine Corps Base, submitted to Marine Corps Headquarters in Washington, D. C.

On 14-15 August 1979 representatives from the Fish and Wildlife Service visited the base for the purpose of inspecting woodpecker habitat in the MIT area. The inspection team met with the Commanding General, Marine Corps Base, and the Commanding General, 2d Marine Division, prior to their inspection. After the inspection, team members met with the Commanding General, Training and Facilities staff sections for a debrief. During the debrief the Fish and Wildlife Service representatives requested copies of the biological opinion and subsequent base regulations and violation reports involving woodpecker habitat.

The Commanding General, Marine Corps Base asked the USFWS representatives the possibility of initiating a research study to determine the status of the Base red-cockaded woodpecker population and any possible adverse impacts to the species. The discussion which followed generated action for planning à possible study whereby the Marine Corps would transfer funds to the USFWS for the research.

On 18 September 1979, the Regional Director, Southeast Region, USFWS through the Director of Real Property and Natural Resources DOD, requested assistance from all military installations for a range-wide red-cockaded woodpecker survey. The Special Assistant for the Environment, Deputy Under Secretary of the Navy replied that the Navy and Marine Corps would support the survey but any funding would have to fall in line with other priorities. North Carolina State University, Department of Zoology submitted the proposed research study to



the U. S. Fish and Wildlife Service and Marine Corps Base for review. Marine Corps Base requested funds for the study in its Program Objective Management (POM) submission for FY-80 which has been submitted annually since that time. The originator of the proposed study presented a request to the Special Assistant for the Environment, Under Secretary of the Navy's Office in early June 1981 requesting assistance in implementing the study. A copy of the response to the request was provided to the Commanding General, Marine Corps Base, by the Commandant, USMC requesting review and comments.

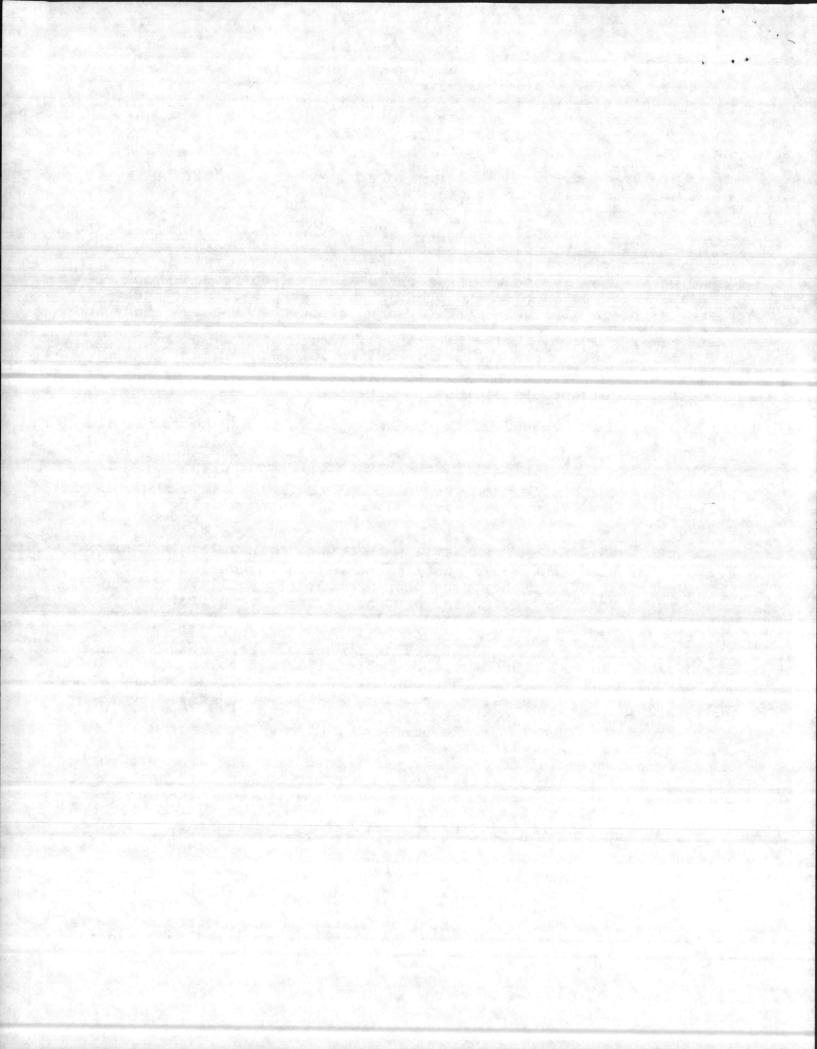
A response was submitted by the CG, MCB on 17 July 1981 noting that (1) weekly inspections of red-cockaded woodpecker habitat were being conducted in compliance with the biological opinion; (2) that the USFWS was presently conducting a range-wide survey to determine the population status on base and other areas of the southeast and (3), there was no legal requirement for conducting the proposed study and recommended it be disapproved. Subsequently, Marine Corps Base decided against participating with USFWS in the range-wide red-cockaded woodpecker survey. Fort Stewart, Georgia and Camp Lejeune are the only federal activities having red-cockaded woodpeckers in the country that did not participate.

Marine Corps Base requested the USFWS on 27 July 1982 to review the biological opinion relative to the habitat boundaries established for red-cockaded woodpeckers in the training areas. A representative visited the Base on 24-25 August 1982 at which time he reviewed proposed changes and discussed them with Base Maintenance Officer, LTCol Calta, AC/S Facilities, COL Marshall, J. I. Wooten and C. D. Peterson, NREAD.

The USFWS concluded that there is no new knowledge regarding the biology of the bird that would justify changes in boundaries established for support stands as they were then marked. In reality, his conclusion was that the designated boundaries are not sufficient by themselves to support the present colonies. The Recovery Plan for the species recommends 200-acre support stands based on home ranges of the species. Therefore, the USFWS could not support relocation of support stand boundaries at present. One and possibly two colony support stands which are apparently abandoned will be dropped as colony sites in compliance with guidelines contained in the USFWS letter to CG, MCB on 30 September 1982. One colony site was in LC area. The other site was in the MB area of the base.

A periodic inspection of the tank/mechanized training area regarding the effects of training activities on the red-cockaded woodpecker was conducted by Mr. Gary Henry and Mr. John Fridel on 13 December 1983. The representatives observed a violation to BO 11015.6 of marked woodpecker habitat at TLZ Penguin. Mr. Henry considered the damage from training at TLZ Penguin as a serious violation of Section 7 of the Endangered Species Act.

Procedures for conducting weekly inspections of Red-Cockaded Woodpecker habitat in the tank/mechanized training area were changed on 20 January 1984. Assistant Chief of Staff, Training personnel began conducting weekly inspections on that date assisted by personnel



from NREAD, Assistant Chief of Staff, Facilities. Violations are forwarded to the Training Facilities Officer for continued action. Marine Corps Base was notified by U.S. Fish and Wildlife Service on 3 February 1984 that the situation at TLZ Penguin was a serious matter they were concerned about. Also, that they were forwarding it to higher administrative levels for review.

