

10 Aug 82

MAIN/JIW/th
16475

From: Base Maintenance Officer
To: Assistant Chief of Staff, Facilities

Subj: Environmental Enhancement/Impact Review Board; meeting of

Ref: (a) AC/S FAC memo FAC/JGF/hf 5420/3 of 4 Aug 1982
(b) AC/S FAC memo of 27 Jul 1982
(c) BO 11000.1A
(d) MCO 6280.5
(e) BO 11015.6

1. As requested by references (a) and (b), the following comments are submitted. The PEAs for projects P-282, P-451, P-133, P-358, TAFDS Field Training Site (Marine Corps Air Station (H), New River) and TWSEAS Minor Construction Project (2d Marine Division) were not forwarded to Base Maintenance Division for formal review/comments which has been standing operating procedure for the past several years.

2. PEAs for projects identified in paragraph 2 i, j, and k of reference (b) have been reviewed by Natural Resources and Environmental Affairs personnel for consistency with references (c) and (d) and the following comments are offered.

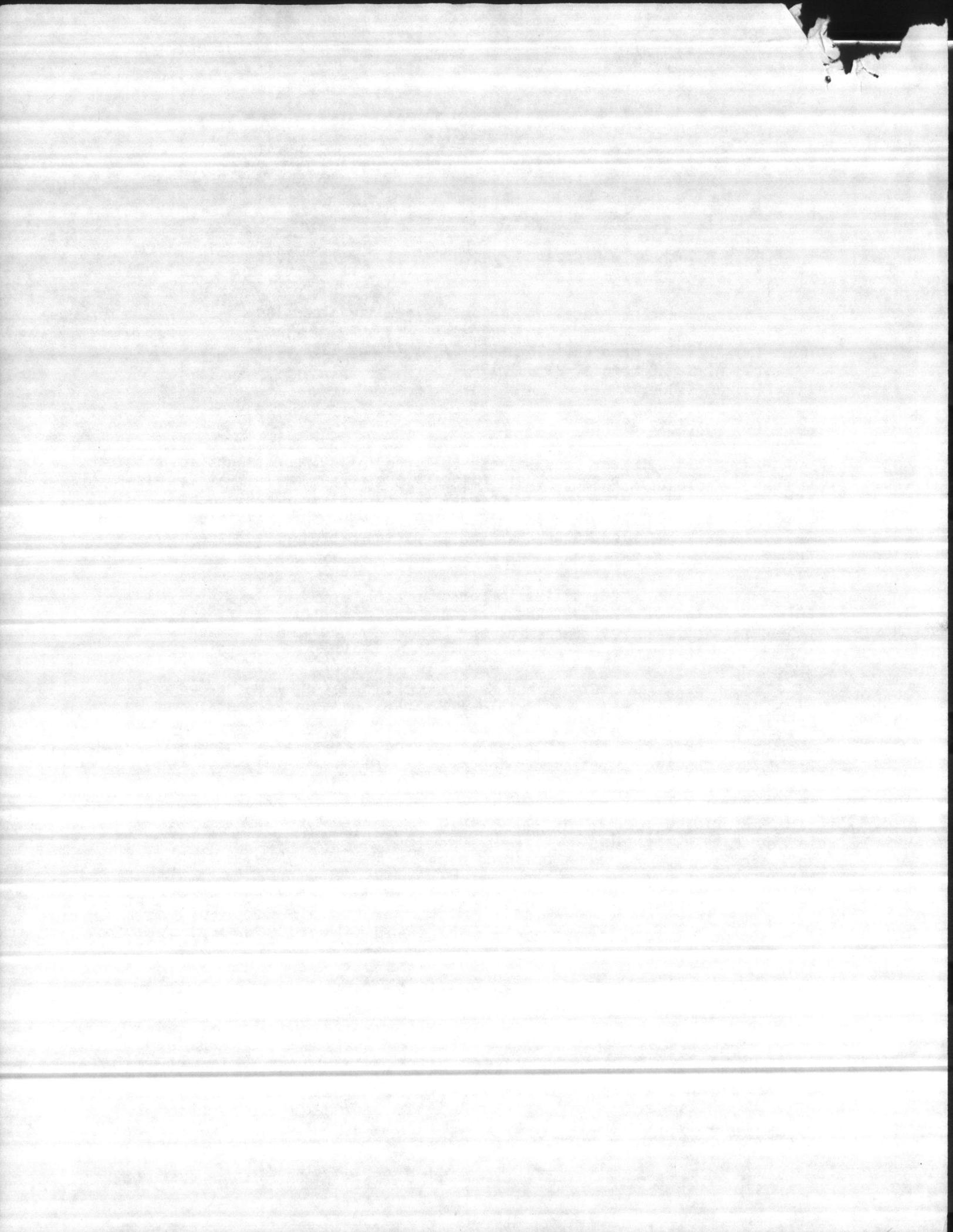
a. Combining the G-5/G-5A and G-6 Ranges into a single range for Tank, TOW and LVT firing (2d Marine Division) - No apparent environmental problem with the proposal if units abide by base red cockaded woodpecker guidelines contained in reference (e). Because of possible public controversy surrounding closing of Highway 172, the general public should be routinely made aware of training schedules requiring the closing of Highway 172.

b. Providing ground observation into the G-10 and K-2 impact areas by clearing excess trees in the buffer zone (2d Marine Division) - The attached map indicated red cockaded woodpecker habitat (including cavity trees) is within the proposed clearing zone. Formal consultation would be required.

(1) Large areas recommended for clearing in the K-2 and G-10 are protected wetlands. Clearing and grading should be coordinated with the U. S. Army Corps of Engineers.

(2) Use of chemicals for clearing and maintenance on this scale may have adverse impact and possible public controversy.

(3) Red cockaded woodpeckers, protected wetlands and the use of chemicals to remove vegetation necessitate an environmental assessment which requires Headquarters Marine Corps concurrence under reference (d).



Subj: Environmental Enhancement/Impact Review Board; meeting of

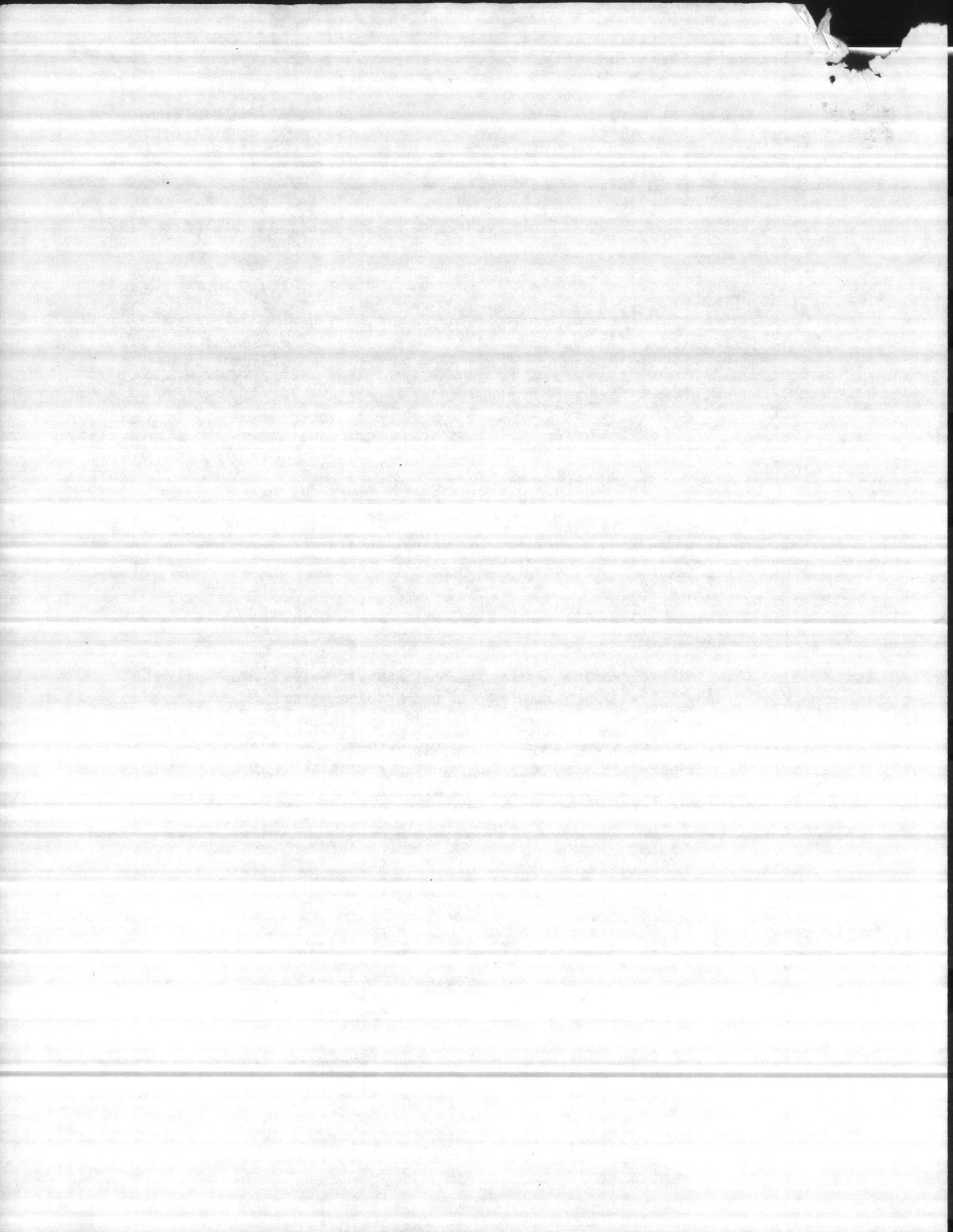
c. Creation of a Tactical Driving Range for Mechanized Units (2d Marine Division)

(1) It is estimated approximately 3,373 combined acres in the HA and HC areas of which approximately 1,800 acres are identified in forestry management as pine or pine hardwood forest. To conduct a timber harvest (thinning) would involve the removal of approximately 4½ million board feet of pine sawtimber and approximately 6,300 cords of pine pulpwood. A clearcut timber harvest would involve the removal of approximately twice as much timber products. Under ideal timber market and logging conditions, removal of the wood products would require several months. The current timber market is poor and the outlook for the next several months is also poor. Area sawmill companies are on a quota system with loggers operating only two or three days per week.

(2) The HA and HC areas are classified as wet due to soil types. If cleared and used as proposed, soil erosion and sedimentation will enter protected wetlands and state owned waters (i.e., Duck Creek, Goose Creek and New River). Engineering type structures to control soil erosion will be required as vegetative cover will not suffice. A coastal zone consistency statement will have to be filed with the state. Duck Creek, Goose Creek and New River waters and adjoining marsh and wetlands are inhabited by the endangered American Alligator which will require consultation ~~with~~ with the U. S. Fish and Wildlife Service.

(3) The base Preliminary Archaeological and Historical Study of Camp Lejeune identified four historic and one archaeological sites in the HC and HA areas which are eligible for listing in the National Register. Three additional sites are identified in the report as significant enough to warrant protection until further study can be accomplished by the base. Reference (d) states, "any activity proposed which would affect historical or cultural sites either now cited on the National Register of Historical Places or deemed eligible for inclusion on the National Register *requires an environmental assessment.*"

R. F. CALTA





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

IN REPLY REFER TO
TRNG/AWR/eks
1500
27 Jul 82

MEMORANDUM

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

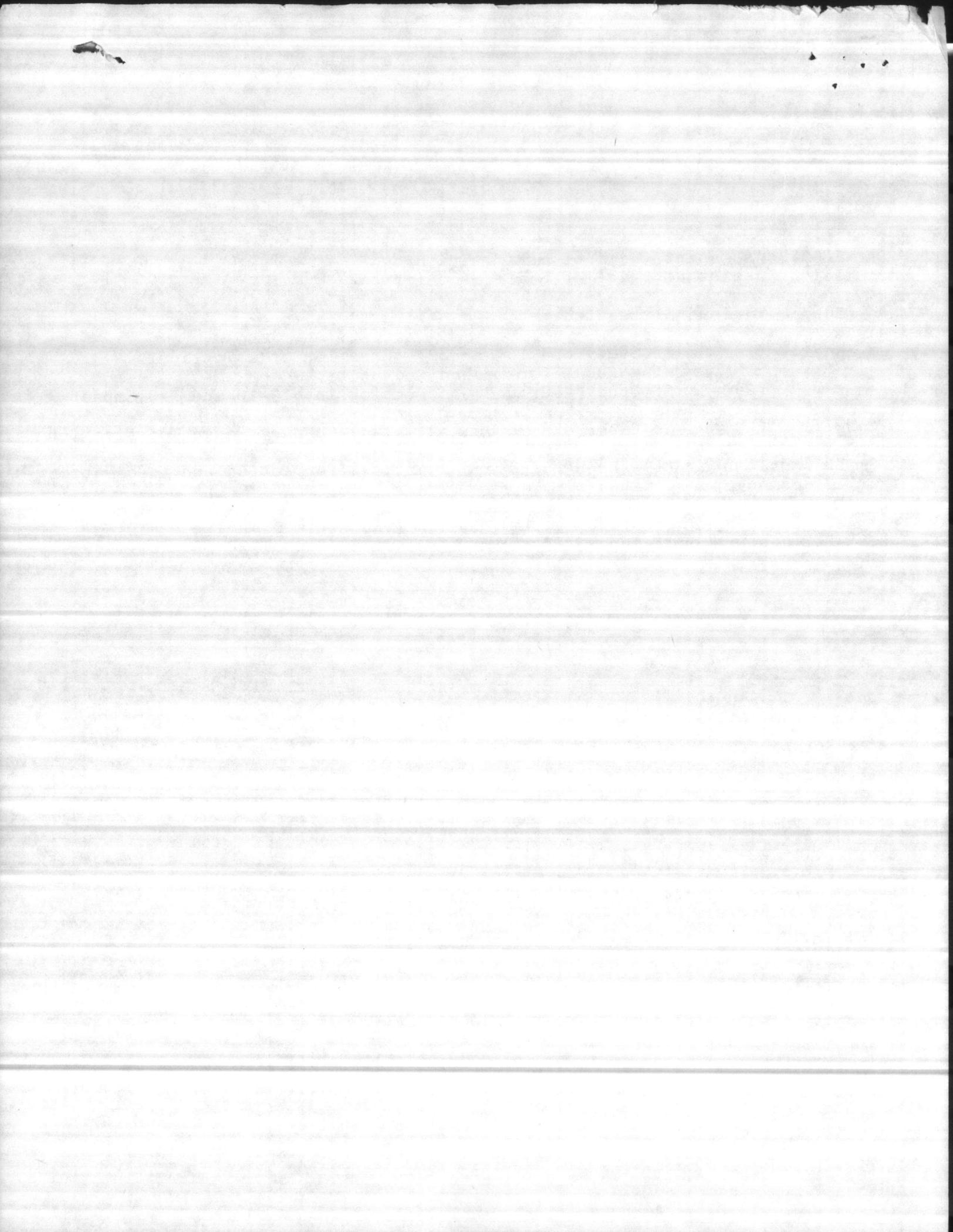
Subj: Various Staff Studies of 2d Marine Division

Encl: (1) ✓ Staff Study dtd 16 Mar 82 - Creation of a Tactical
Driving Range for Mechanized Units
(2) ✓ Staff Study - Ground Observation into G-10 and K-2 Impact
Areas
(3) ✓ Point Paper dtd 26 Jul 82 - Tank Gunnery Range Modification

1. Enclosures (1) through (3) are submitted for action and information as deemed appropriate.

2. It is my understanding that BGen SMITH, ADC, 2d Marine Division will discuss enclosures (1) through (3) with CG at 1330, 28 Jul 1982.


A. W. RUETE, Jr.



STAFF STUDY

Copy no. _____ of _____ copies
DC/S, Readiness
1stLt S. D. GLASS
16 March 1982

SUBJECT

Creation of a Tactical Driving Range for Mechanized Units

INTRODUCTION

The Marine Corps' interest in Mechanized/Maneuver Warfare and possible commitment to battlefields in Europe, Africa, or the Middle East will require MAGTFs to operate in areas with long distance (1000m to 5000m) fields of observation and fire. Success and survival on these battlefields will depend on a unit's ability to maneuver across open terrain with a minimum of casualties.

1. PROBLEM

There are presently no areas at Camp Lejeune with sufficiently large fields of observation for mechanized units to gain adequate experience in the techniques of movement in open terrain. Dense stands of trees that cover most of Camp Lejeune obscure long range fields of fire and observation in areas otherwise suitable for the above mentioned training. Also, regulations against damaging any commercially valuable trees, restricts the tactical employment of armored vehicles in all Camp Lejeune training areas.

2. ASSUMPTIONS

a. That training is significantly important to alter some of the natural tree growth at Camp Lejeune.

b. That a suitable training area can be developed and still properly preserve the existing environment.

3. FACTS BEARING ON THE PROBLEM

a. There is no designated tactical driving range on board Camp Lejeune at this time.

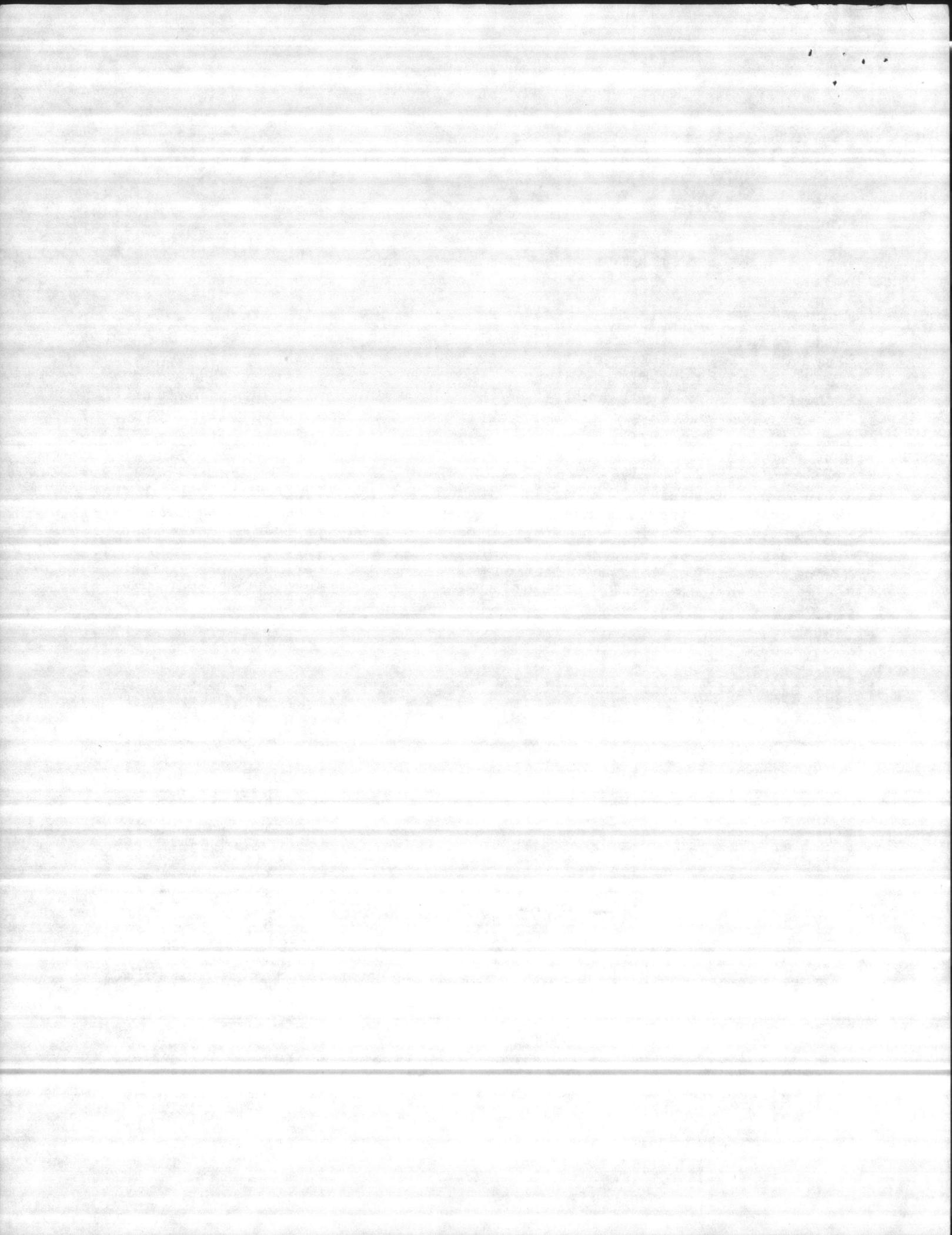
b. Training areas HA and HC would provide a suitable tactical driving range if the trees were harvested or substantially thinned.

c. The trees in training areas HA and HC could be harvested by civilian lumber and paper companies at a profit to the government and no cost to the Marine Corps.

d. The trees in these areas do not provide habitat for any endangered species.

e. The wet lands around Duck and Goose Creeks can be left intact.

ENCLOSURE (1)



4. DISCUSSION

a. Mechanized units require an opportunity to train frequently in the full range of movement to contact and assault techniques while dealing with multiple long range threats. There is no training area on board Camp Lejeune which (as presently vegetated) can fulfill this requirement. However, training areas HA and HC can provide a suitable area for mechanized unit training if the large stands of pine are cleared or significantly thinned. These training areas offer both rolling and flat terrain with varying degrees of trafficability. It is believed that measures to prevent soil erosion and damage to level lands can be implemented, and that lumber and paper companies could remove the commercially valuable timber with no threat to the environment or cost to the Marine Corps.

b. Training areas HA and HC are easily accessible for both tracked and wheeled vehicles. The value of a tactical driving range in these training areas is limited only by the imagination of the Marines that use it.

c. The alternative to a tactical movement range is to delay a significant portion of a unit's mechanized warfare training until that unit deploys to Ft Pickett, 29 Palms, or overseas. However, these training operations do not offer the frequent and regular opportunity for valid training offered by a tactical movement range at Camp Lejeune.

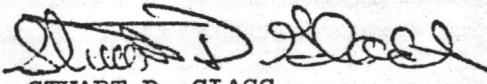
d. A readily available tactical driving range also allows company level units an opportunity to pursue their own training objectives, rather than those of a larger unit involved in a scheduled training exercise.

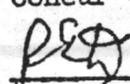
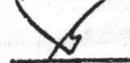
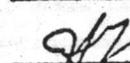
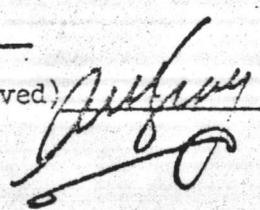
5. CONCLUSIONS

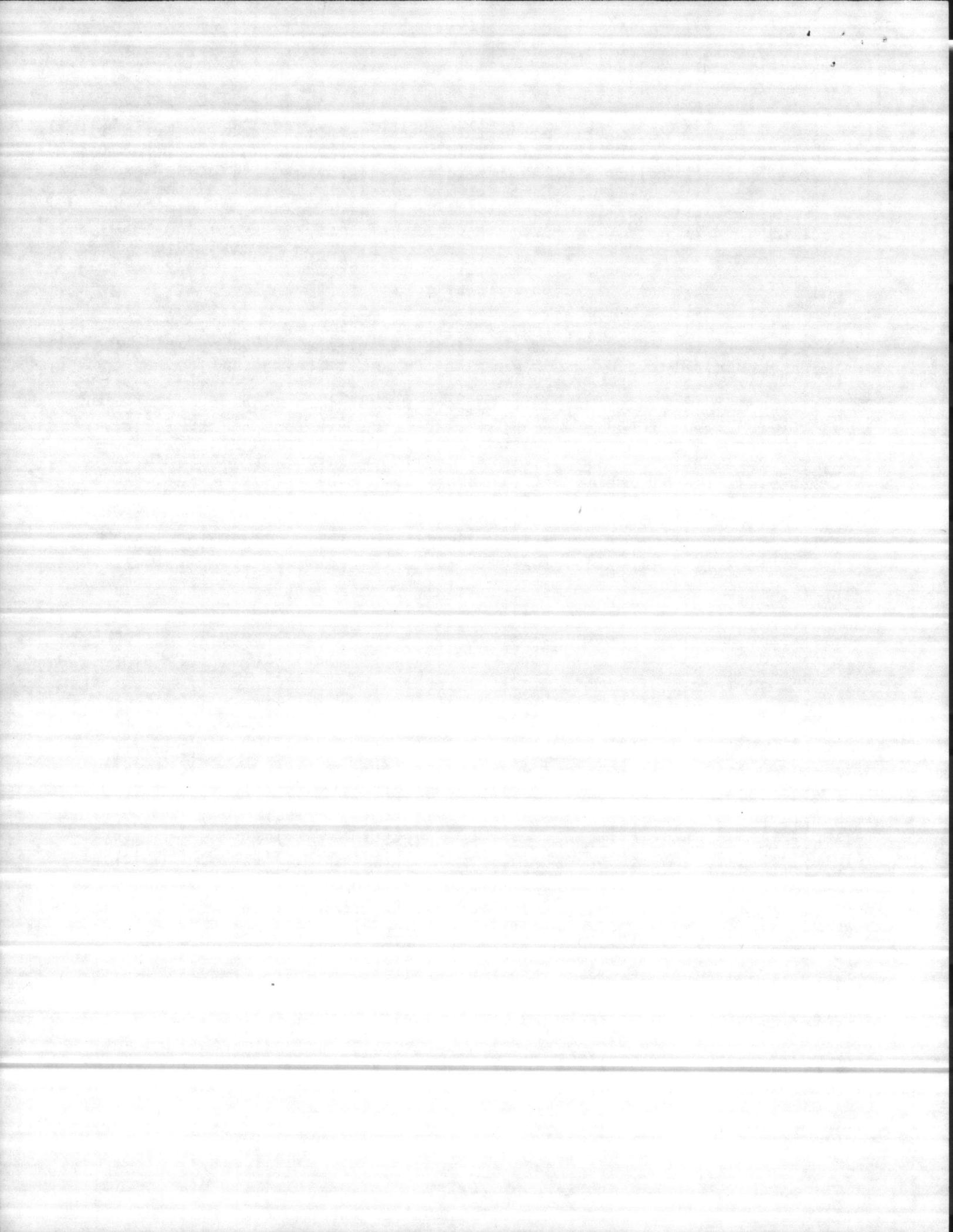
That creating a tactical movement/driving range in training areas HA and HC would offer the maximum available opportunity for mechanized units to gain experience in important warfare techniques.

6. ACTION RECOMMENDED

That the enclosed Preliminary Environmental Assessment be submitted to the Base Environmental Impact Review Board requesting that training areas HA and HC be converted into a tactical driving range.


STUART D. GLASS
1stLt USMC
STATISTICS OFFICER

	Concur	Non-Concur
AC/S, G-3 Training		_____
AC/S, G-3		_____
AC/S, G-4		_____
Chief of Staff	_____	_____
Commanding General (Approved)		(Disapproved) _____





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

501/3DG/dmj
5214
7 June 1982

From: Commanding General.
To: Commanding General, Marine Corps Base, Camp Lejeune
Subj: Tactical Driving Range: submission of Preliminary Environmental Impact Assessment
Ref: (a) BO 11000.1A

1. It is requested that a Tactical Maneuver Driving Range be developed in the HA and HC training areas. A preliminary Environmental Impact Assessment is hereby submitted in accordance with reference (a).

a. Action/Project Description

(1) The Marine Corps is increasingly interested in preparing for mechanized warfare in Europe, Africa and the Middle East. On these battlefields the MAGTF may have to maneuver across generally open terrain (fields of observation and fire generally exceeding 1000m) against threat forces employing direct fire weapons effective out to 5000m. Armored vehicle and mechanized infantry unit leaders must be able to move their units across open terrain without unacceptable casualties. The objective of establishing a tactical driving range is to provide an area in which company level unit leaders can develop the necessary skills to successfully maneuver over open terrain.

(2) If this proposed driving range is not established Camp Lejeune can not offer essential open terrain training for company level armored vehicle and mechanized infantry units. This could result in vehicle commanders and unit leaders not effectively developing their skills in the full range of terrain driving such as movement to contact and assault techniques which may be essential for future battlefields. Mechanized vehicles are presently restricted to trails and landing zones. Generally, training in immediate reaction drills, long range fire direction and mechanized maneuvering suffer in the highly restrictive wooded training areas at Camp Lejeune.

(3) No permanent facilities are required; however hardened creek crossing points and sediment traps may be desirable.

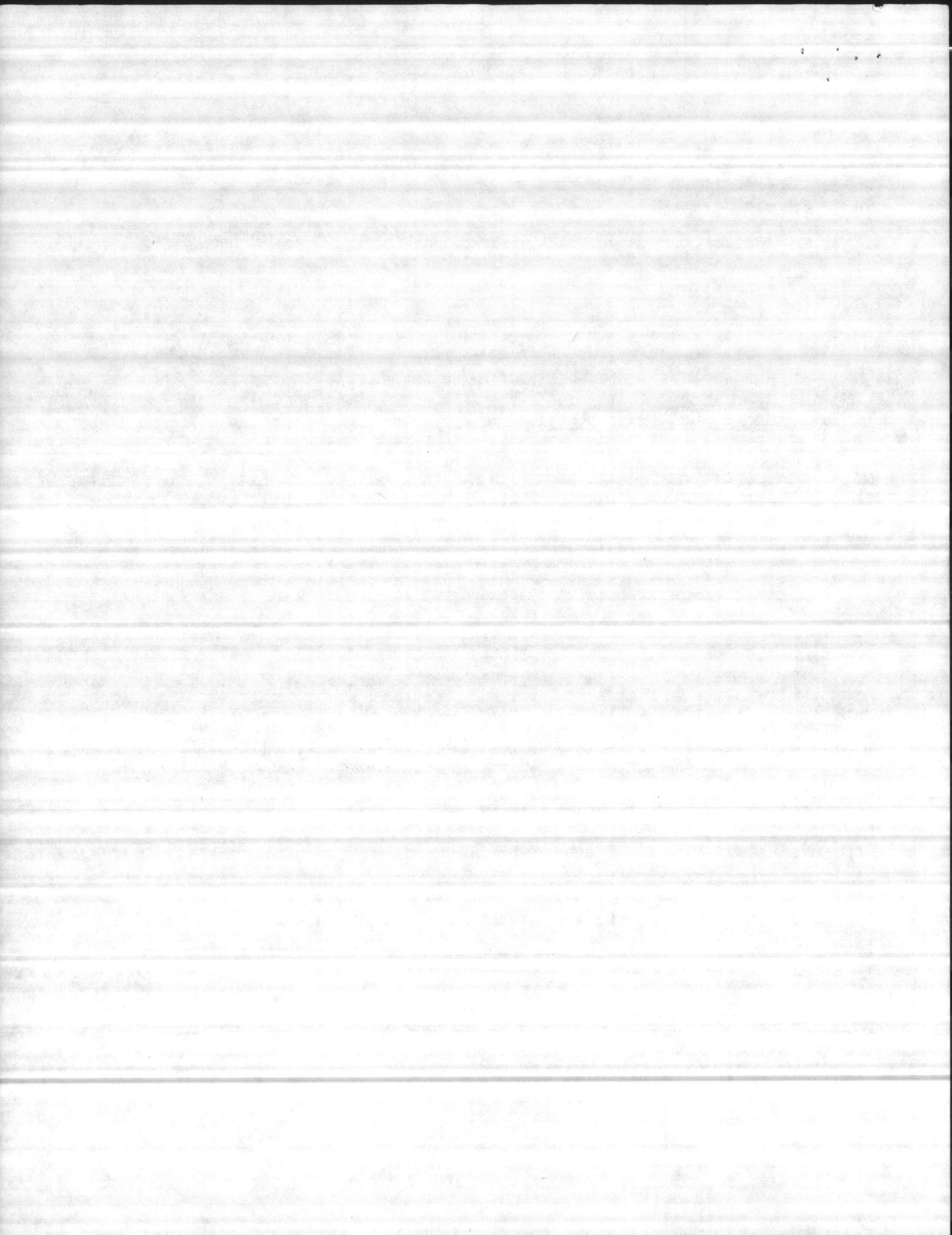
(4) Long range fields of observation and fire (greater than 1000m) can be created and maintained throughout training areas HA and HC to offer the necessary training environment. The vegetation height must be kept to no more than knee high after the current large trees are harvested.

(5) These areas would be used as a tactical driving range for company level armored vehicle units and tactical movement for dismounted infantry units.

b. Consideration of Alternatives

(1) Alternatives

a. Keep existing areas as they are and increase mechanized training time at 29 Palms and Fort Pickett.



1. 29 Palms: A large Marine Corps desert training area in California.

2. Ft Pickett: An Army training area with rolling hills and intermittent woods in Southern Virginia.

b. Develop other training areas, such as HB, HF, HE IE, and IA which are flat, heavily wooded areas at Camp Lejeune with satisfactory trafficability.

(2) Training areas HA and HC are more suitable than 29 Palms or Ft Pickett because these training areas are on board Camp Lejeune and are accessible to many more units on a regular basis. Also, company level units using HA and HC can concentrate solely on their own training objectives instead of a BLT's training schedule. Training areas HA and HC are preferable to training areas HB, HF, HE, IE and IA because the other training areas have more featureless terrain which limits vital training in tactical driving. Also, training areas HB, HE, HF, IE, IA are endangered species habitat areas while training areas HA and HC are not. The terrain in training areas HA and HC offer the most valuable opportunity for tactical terrain driving.

Compliance with federal, state, and local environmental regulations and guidelines.

(1) Endangered Species Act. There are no endangered species in training areas HA and HC.

(2) Clean Water Act. The only possibility of water pollution stems from soil erosion. Base ecology personnel have suggested several methods to prevent soil erosion. These include:

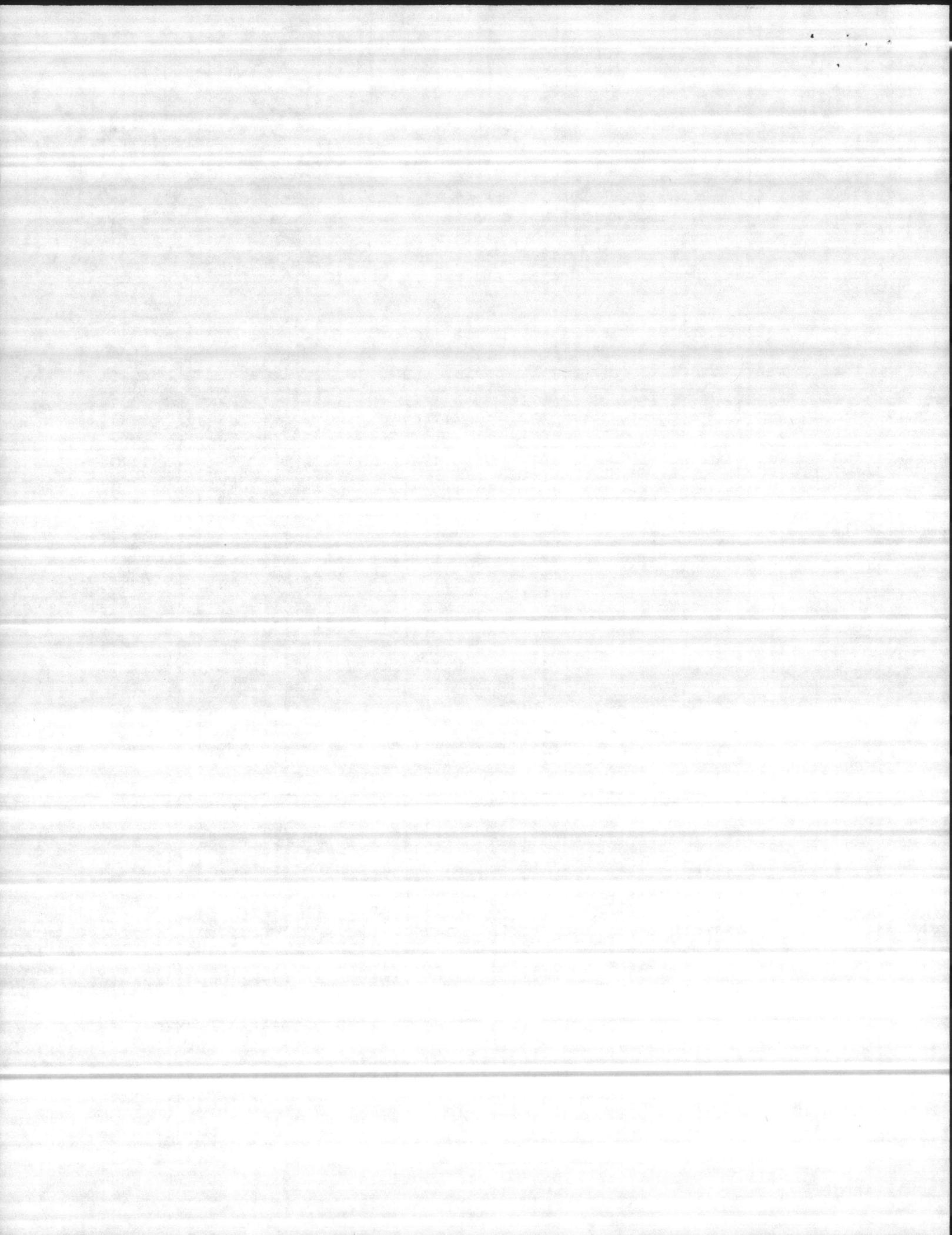
1. Growing cover vegetation as the trees are harvested.
2. Leaving a 100m wide barrier of trees standing around the creek estuaries.
3. Constructing hardened creek crossing points and sediment traps.
4. Limiting the number of training days that tracked vehicles may use training areas HA and HC to 15/month.

(3) Clean Air Act. Not applicable. No significant discharge of air pollutants is expected.

(4) Coastal Zone Management. There is no direct impact on beaches or salt marshes. Implementation of the erosion prevention measures suggested by Base ecology personnel will prevent indirect damage which might be caused by sedimentation.

(5) Archaeological and Historic Preservation Act. There are no known sites of historical importance in training areas HA and HC.

(6) North Carolina Erosion & Sedimentation Regulations. Erosion and sedimentation can be maintained at normal levels by the use of methods mentioned in C(2) above.



(7) Hazardous Materials and Waste Disposal. Not applicable.

(8) Protection of Wetlands, Executive Order 11990. The provision to leave a 100m wide barrier of trees standing around each creek area should provide adequate protection of wetlands.

(9) Sanitary Waste and Refuse Disposal. The using unit will be required to police up and remove its own trash. Maximum amounts are expected.

(10) Other Regulations Applicable. The proposed action does not involve any environmental regulations other than those discussed above.

(11) Permit Requirements. None

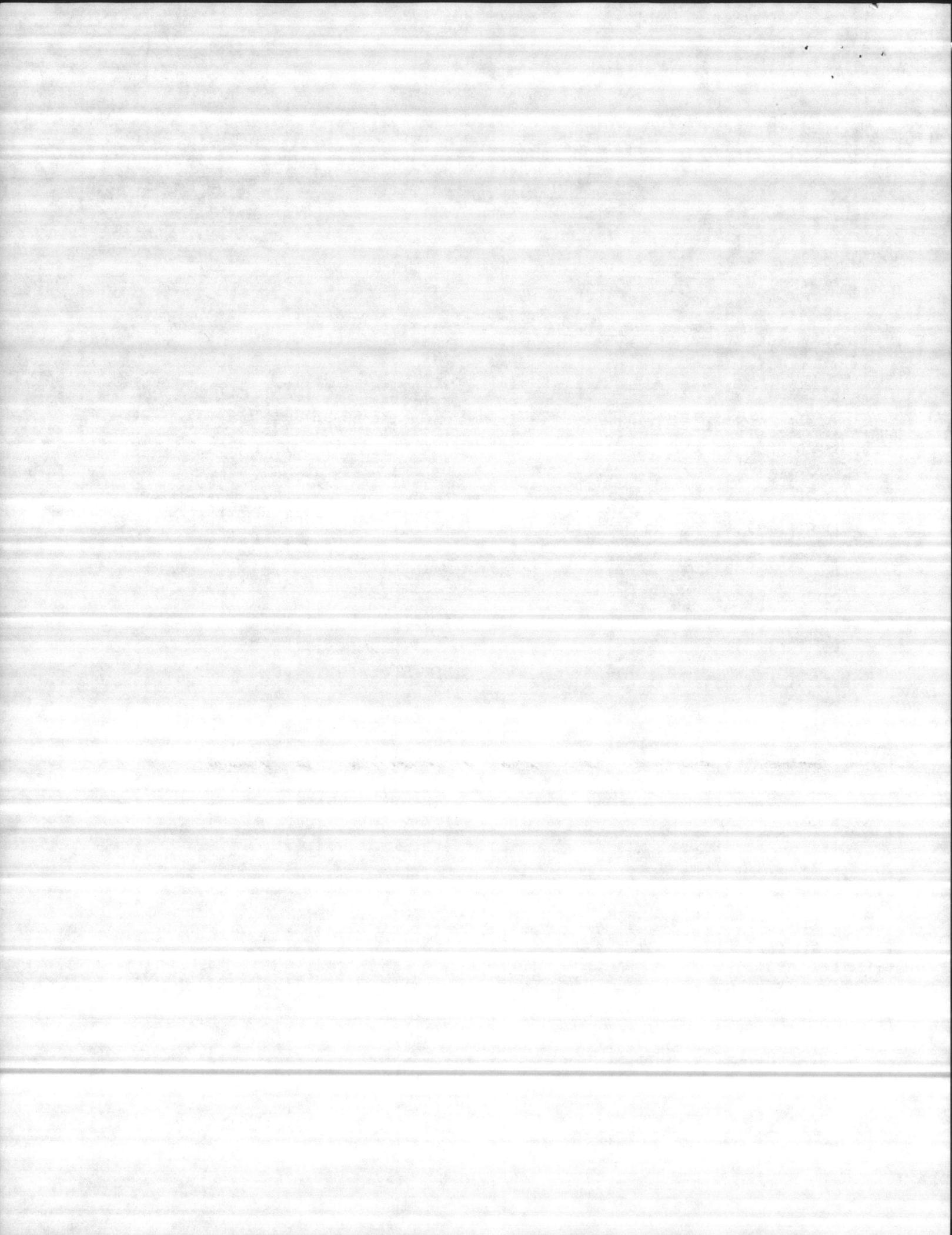
(12) Site Map. See training areas HA and HC on Camp Lejeune special map.

d. How does the proposed action impact on other Base functions and missions.

(1) --No impact. Training areas HA and HC contain no restricted areas and are not covered by any range fan.

(2) Consistency with Base Master Plan. Initial discussion with the Commanding Officer of Base Maintenance indicates that the proposed modifications are within the constraints of the Base Master Plan.

F. C. LEWIS
By direction



STAFF STUDY

Subject

Providing ground observation into the G-10, and K-2 impact areas by clearing excess trees in the buffer zones and impact areas.

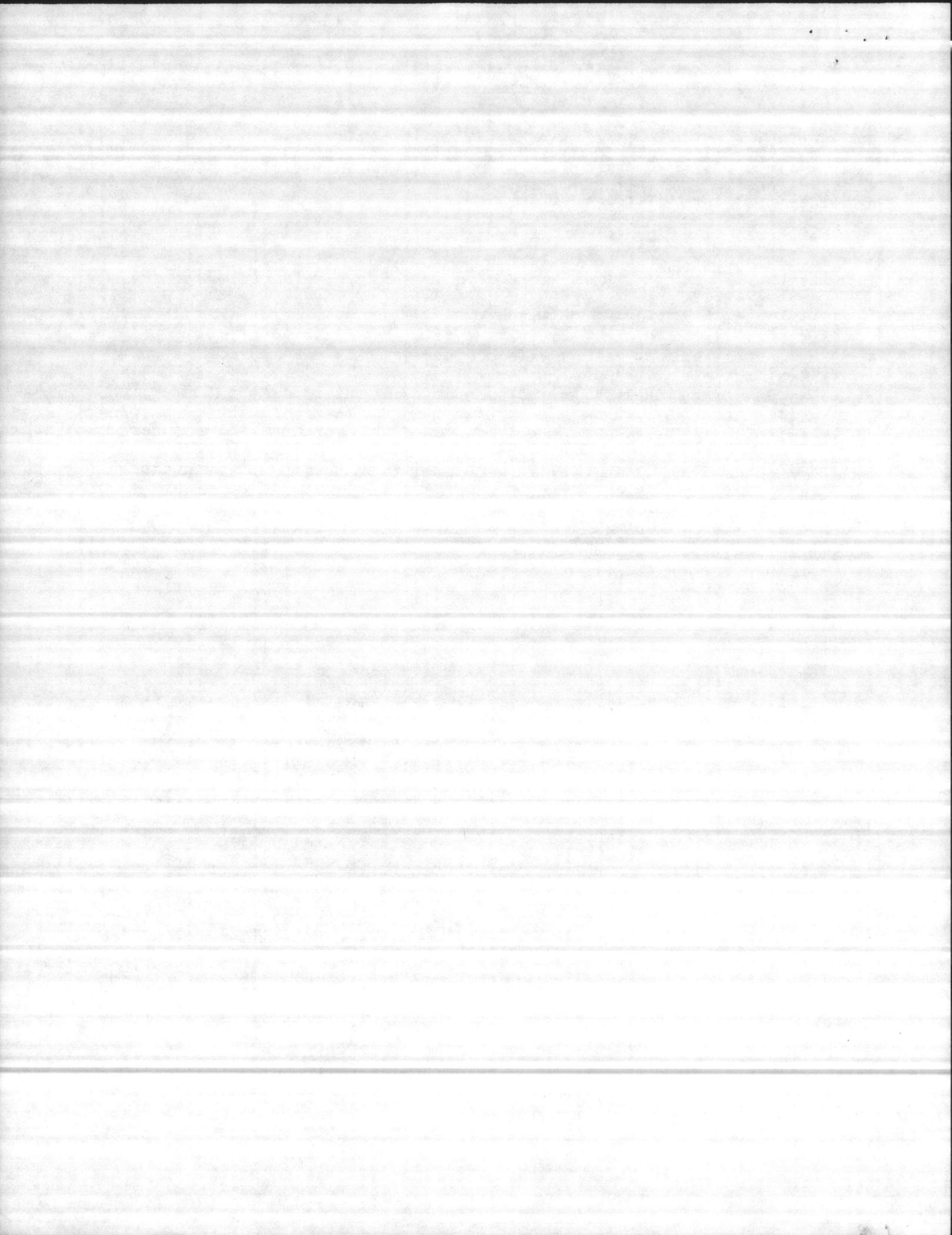
Introduction

The Marine Corps will rely heavily upon its artillery on any modern battlefield. Artillery must be able to deliver effective fire quickly and accurately on many rapidly approaching, widely separated targets to adequately support Marine units on the modern battlefield. On the modern battlefield artillery will rely heavily upon forward observers moving through unfamiliar terrain to direct their fires. Also, artillery batteries may be required to "shift trails" to engage a rapidly approaching target far from their original targets.

1. Problem. Forward observers must call in artillery fire on the G-10 impact area from well known towers, on OPs marked on the map, rather than a less familiar position on the ground as they would in combat. Also, an aerial observer is required for artillery batteries to use the K-2 impact areas which limits opportunities for these batteries to "shift trails" and engage widely separated targets.

2. Assumptions

- a. That the increased training opportunities are significant enough to alter the G-10 and K-2 impact and buffer zones.
- b. That these alterations can be accomplished without an adverse effect on the environment.



3. Facts Bearing on the Problem

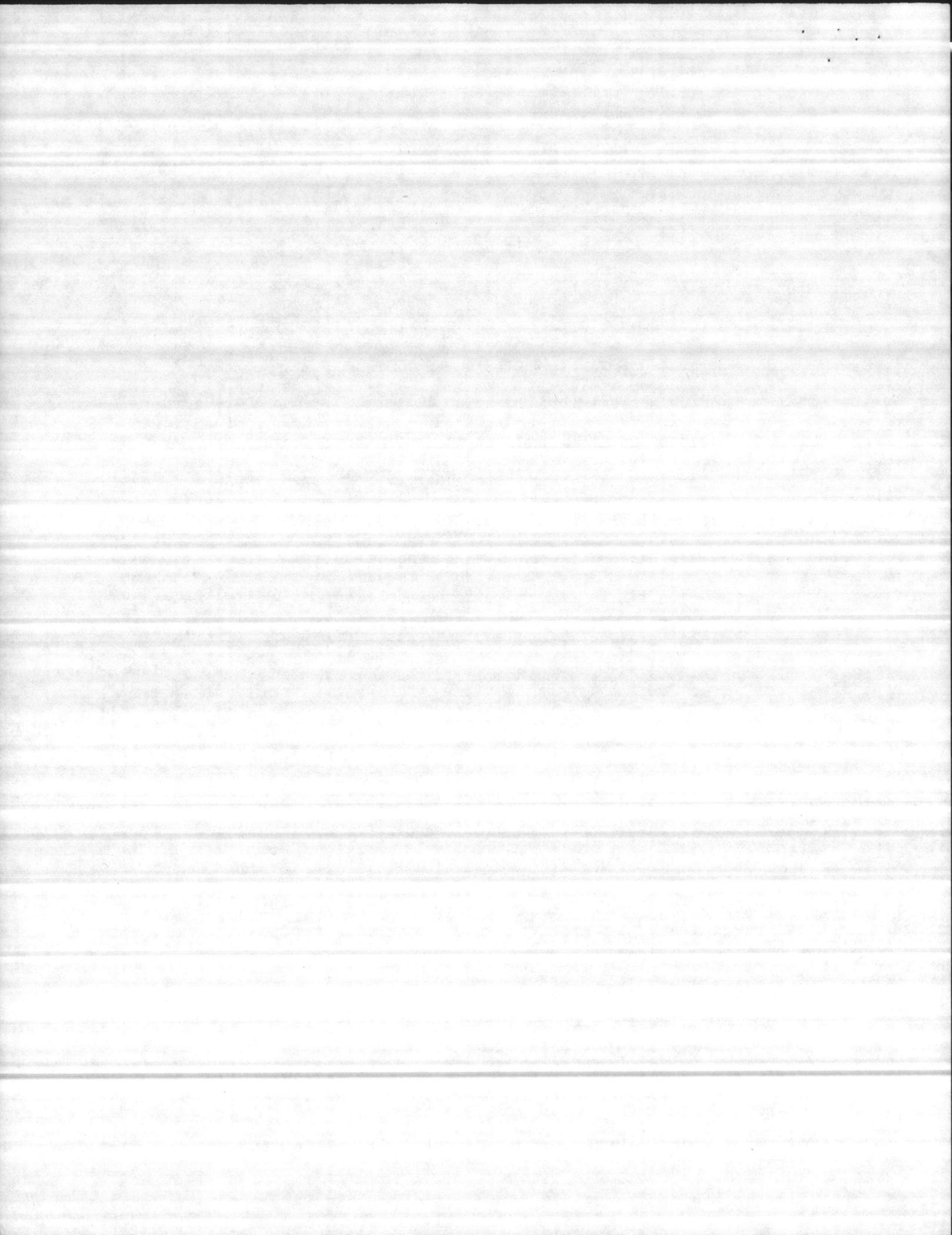
- a. Artillery fire into the G-10 and K-2 cannot be observed from the ground at this time due to dense stands of trees in the buffer zones and impact area.
- b. Base Ecology personnel do not consider the G-10 and K-2 areas ecologically sensitive or as habitat for endangered species.
- c. The K-2 impact area and buffer zone do not contain any commercially usable timber in the opinion of Base Forestry personnel.
- d. The G-10 impact area, the northern buffer zone between OP-1 and gun position #9 and the southwest corner of the G-10 buffer zone between OP-5 and the G-4 Range do not contain commercially usable trees in the opinion of Base Forestry personnel.
- e. EOD personnel from FSSG can effectively sweep the G-10 impact area and buffer zone with the aid of manpower from 10th Marines.
- f. EOD personnel from Base can effectively sweep the K-2 impact area and the buffer zone south of Ranges K-309, K-315, K-317, and East of K-402 and K-406.
- g. Thirty (30) M-8230 Bulldozers from 8th Engineers and 4 (on very limited basis) from 2d Engineers are available and have the capability to completely clear large areas of the G-10 northern buffer zone in the necessary amount of time.
- h. The use of M-8230 Bulldozers will cost roughly \$18.00 to \$20.00/hour/M-8230 to operate, and a full Engineering Estimate is required prior to their use in the proposed clearing area.
- i. Excess trees in both the K-2 and G-10 areas can be efficiently and selectively removed by explosives while providing a valuable training opportunity for engineer and other units.
- j. Personnel from 10th Marines equipped with pioneer gear (chain saws, axes, etc.) can augment the aforementioned sweeps and clearing efforts.
- k. All vegetation within 1000m of New River can be left intact without hindering ground observation into the K-2 impact area.
- l. The above mentioned areas can be cleared gradually over a long period of time to the degree necessary.

4. Discussion

On any modern battle field, the Marine Corps will depend heavily upon its artillery. Much of the effectiveness of our artillery depends upon the ability of forward observers to rapidly and accurately call in fire from an unmarked position in an unfamiliar area. Also, artillery batteries will be called upon to deliver effective fire upon widely separated rapidly approaching targets. Forward observers must gain experience calling in fire from the ground (not from a tower marked on the map) and artillery batteries must train in the techniques of "shifting trails" to engage targets widely separated from those originally engaged to be fully effective on the modern battlefield. This training can be conducted on the K-2 and the G-10 areas if the excess trees in the areas outlined in paragraphs 3d, 3f, 3k are cleared. The personnel, expertise and equipment to accomplish the task within a reasonable amount of time are available at Camp Lejeune. Base Ecology personnel do not consider the areas outlined in paragraphs 3d, 3f, 3k to be ecologically sensitive or habitat for endangered species. Base Ecology personnel believe that no ecological damage will result from this project so long as the areas involved are not totally defoliated. Base Forestry considers the timber in the above mentioned areas to be of no commercial value.

5. Conclusions

That clearing the excess trees in the areas outlined in paragraphs 3d, 3f and 3k to allow ground observation into the G-10 and K-2 will significantly enhance the value of training available to artillery units at Camp Lejeune without interfering with the training of other units or threatening the environment of Camp Lejeune.

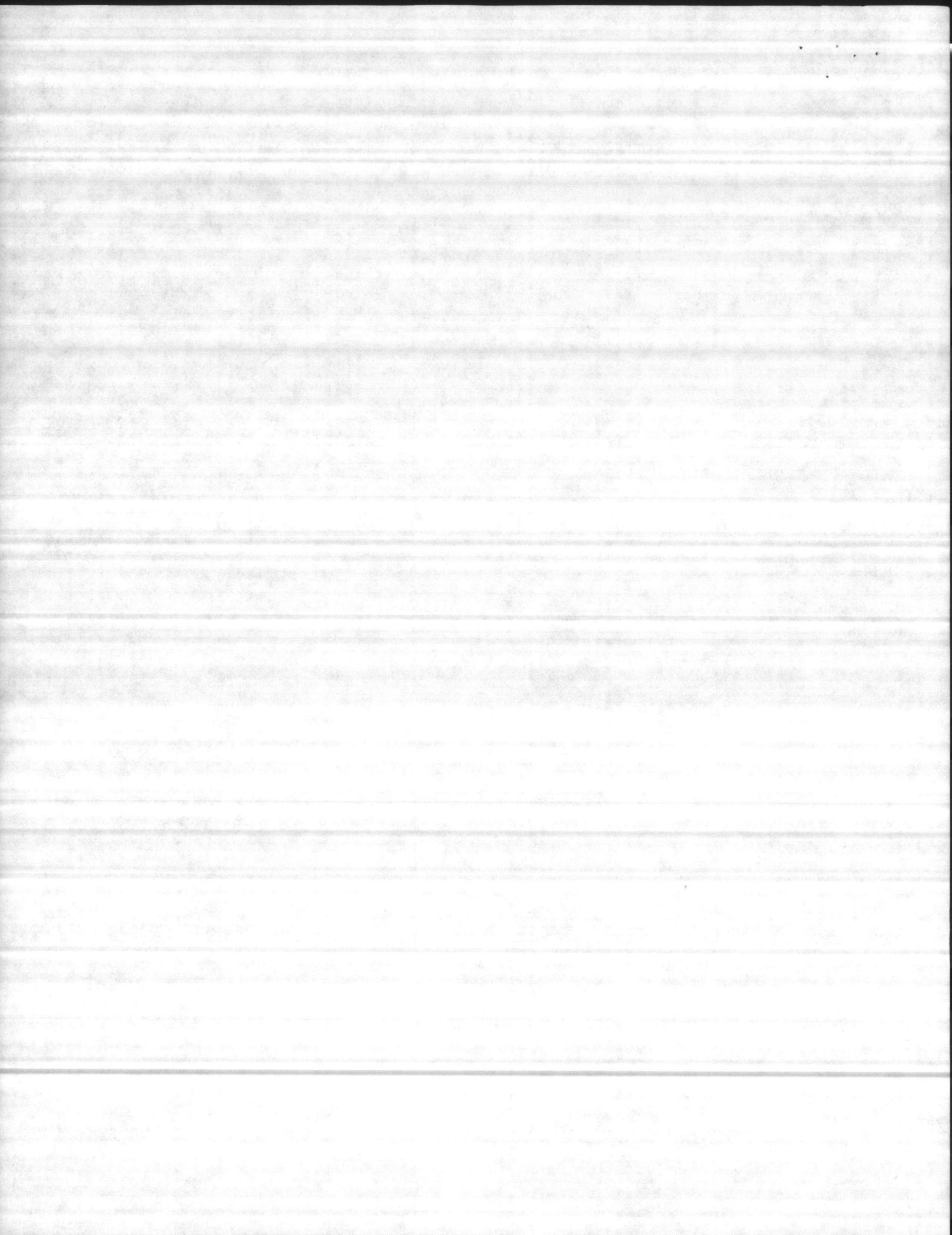


6. Action Recommended

That the enclosed Preliminary Environmental Assessment be submitted to the Base Environmental Impact Review Board requesting that the proposed clearing operation be allowed to proceed.

S. D. GLASS
First Lieutenant, USMC
Statistical Officer

	Approved	Disapproved
AC/S, G-3 Training	_____	_____
AC/S, G-3	_____	_____
AC/S, G-4	_____	_____
Chief of Staff	_____	_____
Commanding General (Approved)	_____	(Disapproved)



PRELIMINARY ENVIRONMENTAL ASSESSMENT

1. It is requested that excess trees in the K-2 and G-10 impact areas and buffer zones be cleared sufficiently to allow ground observation into the aforementioned impact areas.

a. Action/Project Description

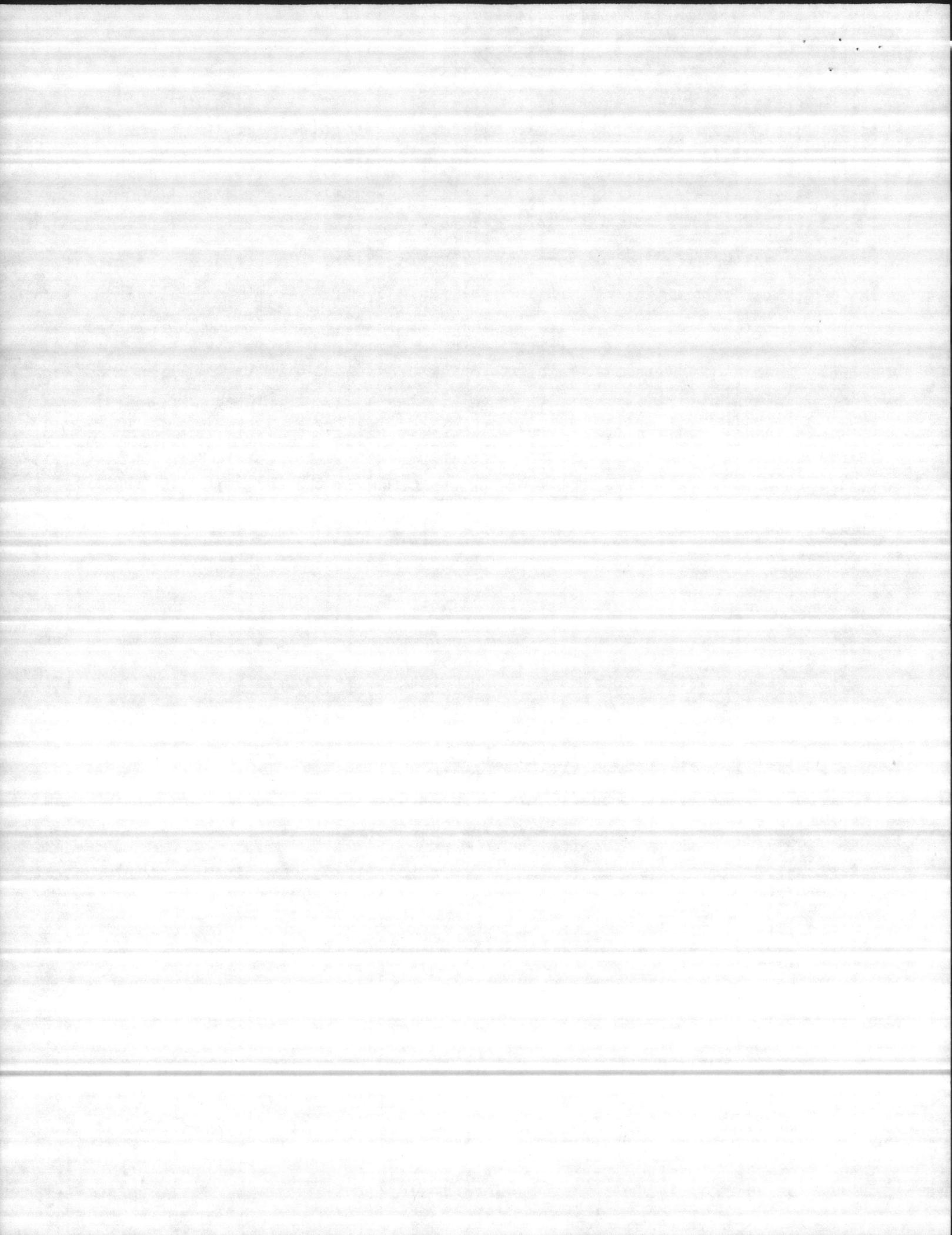
(1) The Marine Corps will rely heavily upon effective artillery support on any modern battle field. Marine Corps artillery requires well trained forward observers to be effective in the present day rapidly shifting, target rich environment. Forward observers must gain experience in calling in fire from an unmarked position on the ground (not a well marked tower 50ft in the air) to be completely effective. Also, for artillery units to effectively engage many widely separated rapidly approaching targets, they must be proficient in the techniques of "shifting trails" and rapidly engaging widely separated targets.

(2) If the proposed clearing (see site map, Appendix A) is not done, Camp Lejeune cannot offer forward observers a truly realistic training environment. Also, artillery batteries lose a rare opportunity to develop the flexibility offered by mastering of the techniques of "shifting trails".

(3) No permanent facilities are required.

(4) Trees and other vegetation taller than waist height must be sufficiently thinned to allow ground observation of K-2 and G-10 impact areas. No new impact areas are needed.

(5) The proposed modification of the K-2 and G-10 impact areas and buffer zone would simply increase the effectiveness of the mortar, artillery and CAS training already authorized for those areas.



b. Considerations of Alternatives

(1) Alternatives

a. Maintain existing areas as they are and increase training at Ft. Bragg, Ft. Pickett, 29 Palms, Vieques Island, and Capo Tuelada.

1. Ft. Bragg: an Army training base in Central Northern Carolina with impact areas which are larger than the G-10.

2. Ft. Pickett: an Army training base with one central impact area which is roughly the same size as the G-10.

3. 29 Palms: a large Marine Corps desert training area in California with live fire allowed into all training areas.

4. Vieques Island: as island training area in the Caribbean with a small $2\frac{1}{2}$ km peninsular impact area.

5. Capo Tuelada: a training area on Sardinia with a small mountainous peninsula for an impact area.

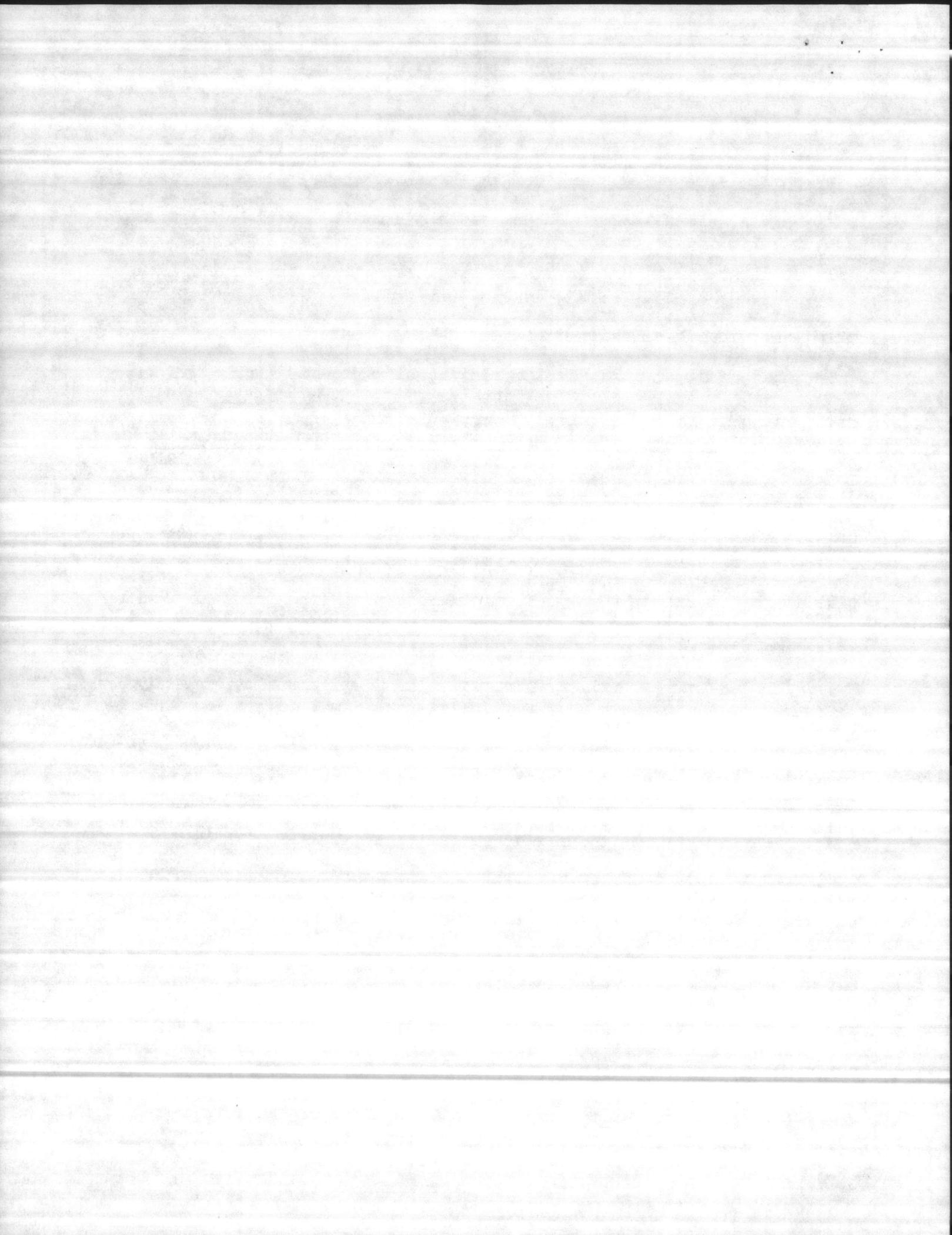
b. Maintain the G-10 and K-2 impact areas as they are and thin the vegetation in the N-1 impact area and buffer zone.

c. Maintain existing impact area as is and create a completely new impact area.

(2) 29 Palms is the only training area away from Camp Lejeune the allows ground observation of artillery (from an unmarked position). However, few forward observers have the opportunity to train there due to the high cost of mounting a training OP at 29 Palms. Ft. Bragg offers an opportunity to shift trails but 10th Marines units can only train there bi-annually due to the cost. The N-1 is unsuitable due to its very limited size and depth. New impact areas cannot be established at Camp Lejeune due to the limited space available.

c. Compliance with federal, state, and local environmental regulations and guidelines.

(1) Endangered Species Act. There are no endangered species in the



G-10 and K-2 impact area and buffer zone.

(2) Clean Water Act. Soil Erosion provides the only possibility of water pollution. However, Base Environmental personnel believe that erosion will be minimal and within acceptable levels for the following reasons:

(a) No clearing will be done within 1000m of New River.

(b) The areas that would be cleared are not erosion prone.

(c) There will be little, if any, vehicle traffic in the area proposed for clearing.

(d) Use of demolitions and/or pioneer gear allows very selective cutting.

(3) Clean Air Act. No significant discharge of air pollutants is expected.

(4) Coastal Zone Management. There is no direct impact on beaches or salt marshes. No significant increase in erosion is expected due to the reasons listed above.

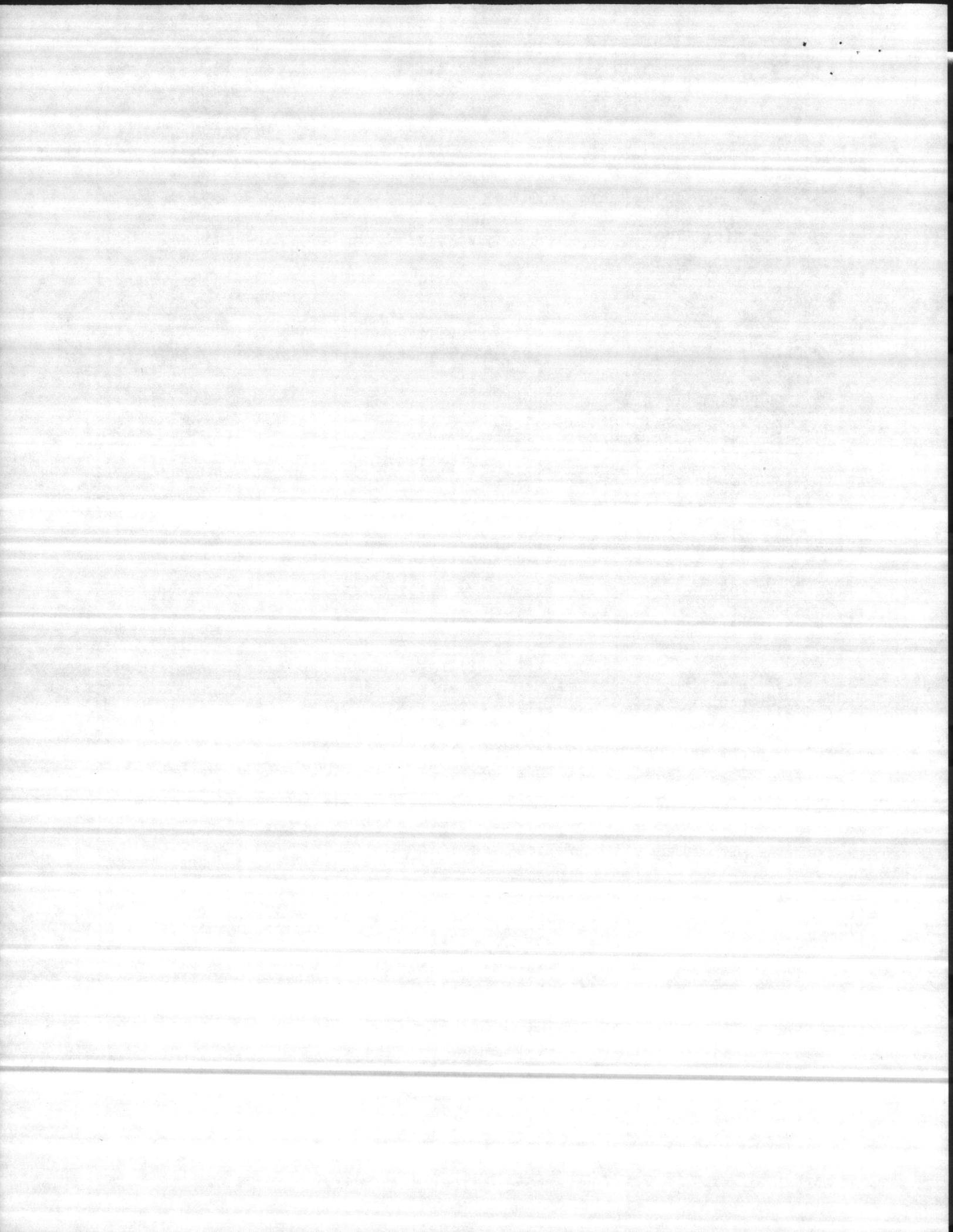
(5) Archaeological and Historical Preservation Act. There are no known sites of historical importance in the K-2 and G-10 impact areas and buffer zones.

(6) North Carolina Erosion and Sedimentation Regulations. Erosion and sedimentation will show no significant increase due to the reasons listed in c(2) above.

(7) Hazardous Materials and Waste Disposal. The metal residue from rounds authorized for use in the G-10 and K-2 impact areas are nonhazardous. The areas involved are already authorized impact areas and buffer zones, and are so marked. At this time, the current state and federal regulations do not appear applicable.

(8) Protection of Wetlands. Executive Order 11990. The conditions and measures listed in c(2) will provide adequate protection for any wetlands involved.

(9) Sanitary Waste and Refuse Disposal. The using unit will police up and remove its own refuse and EOD will handle explosive ordnance as necessary.



(10) Other Regulations Applicable. The proposed action does not involve any environmental regulations other than those discussed above.

(11) Permit Requirements. None.

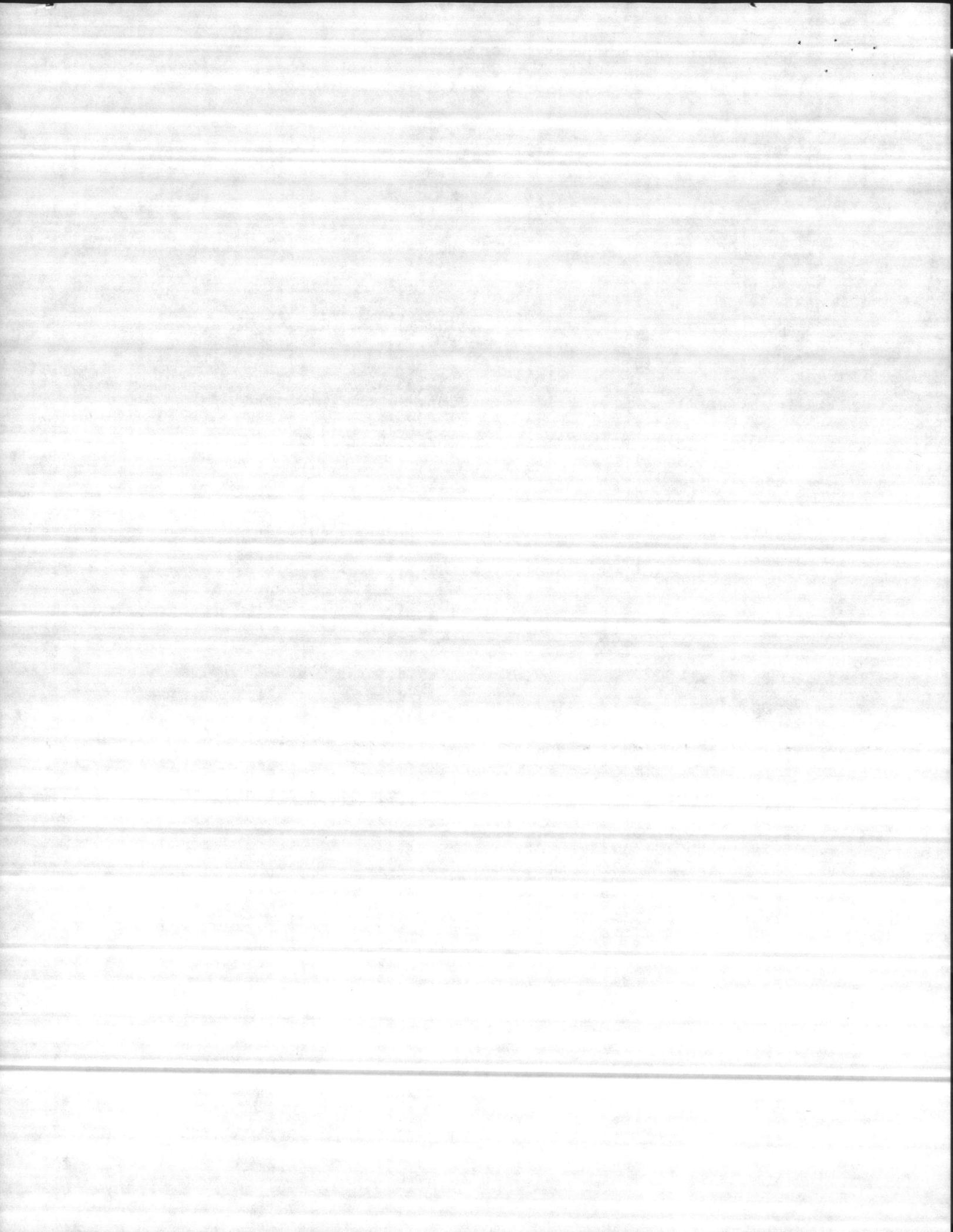
(12) Site Map. See Appendix B.

d. How does the proposed action impact on other Base functions and missions.

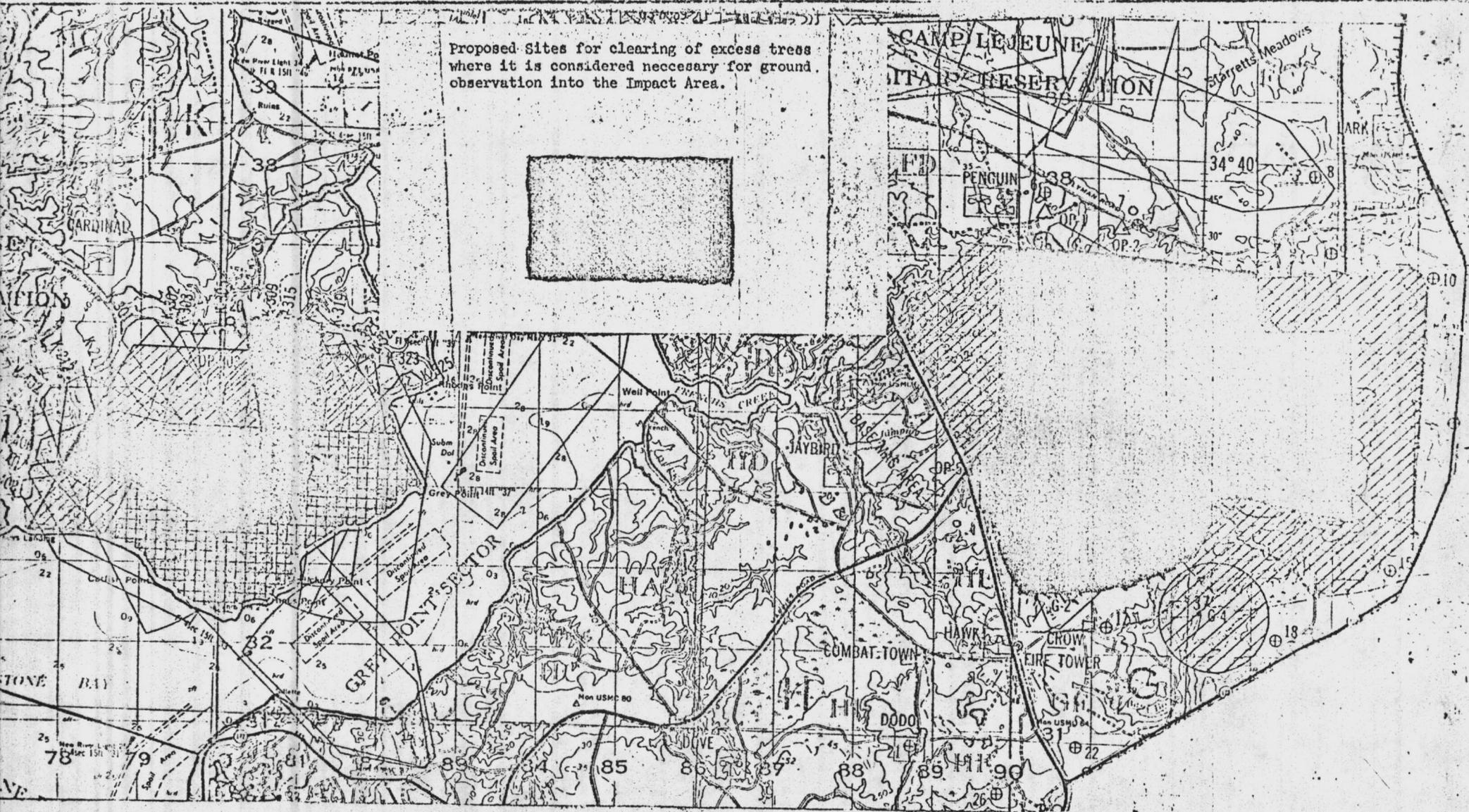
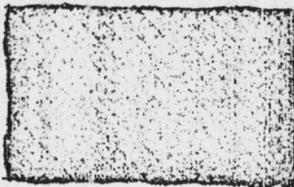
(1) A favorable impact. The K-2 and G-10 impact areas and buffer zones are already authorized for (and restricted to) mortar, artillery, and CAS training. Also, the proposed clearing will provide an opportunity for many units to do some demolition training.

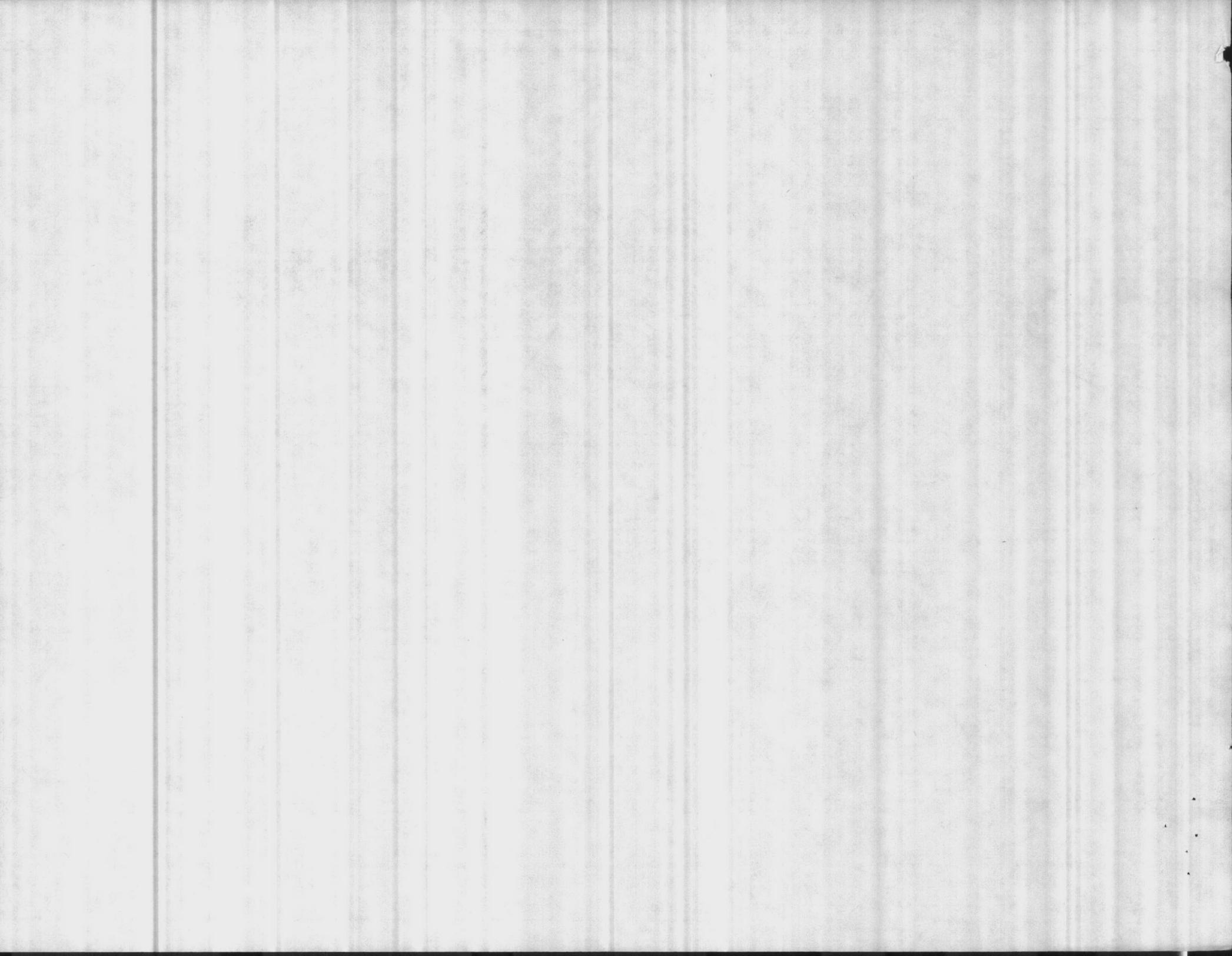
(2) Consistency with Base Master Plan. Discussion with the Base Training Facilities Officer indicated that constraints of the Base Master Plan are met.

F. C. LEWIS
By direction



Proposed Sites for clearing of excess trees where it is considered necessary for ground observation into the Impact Area.





1/ Lt. S. D. G...
OC/A, ...
26 July 1982

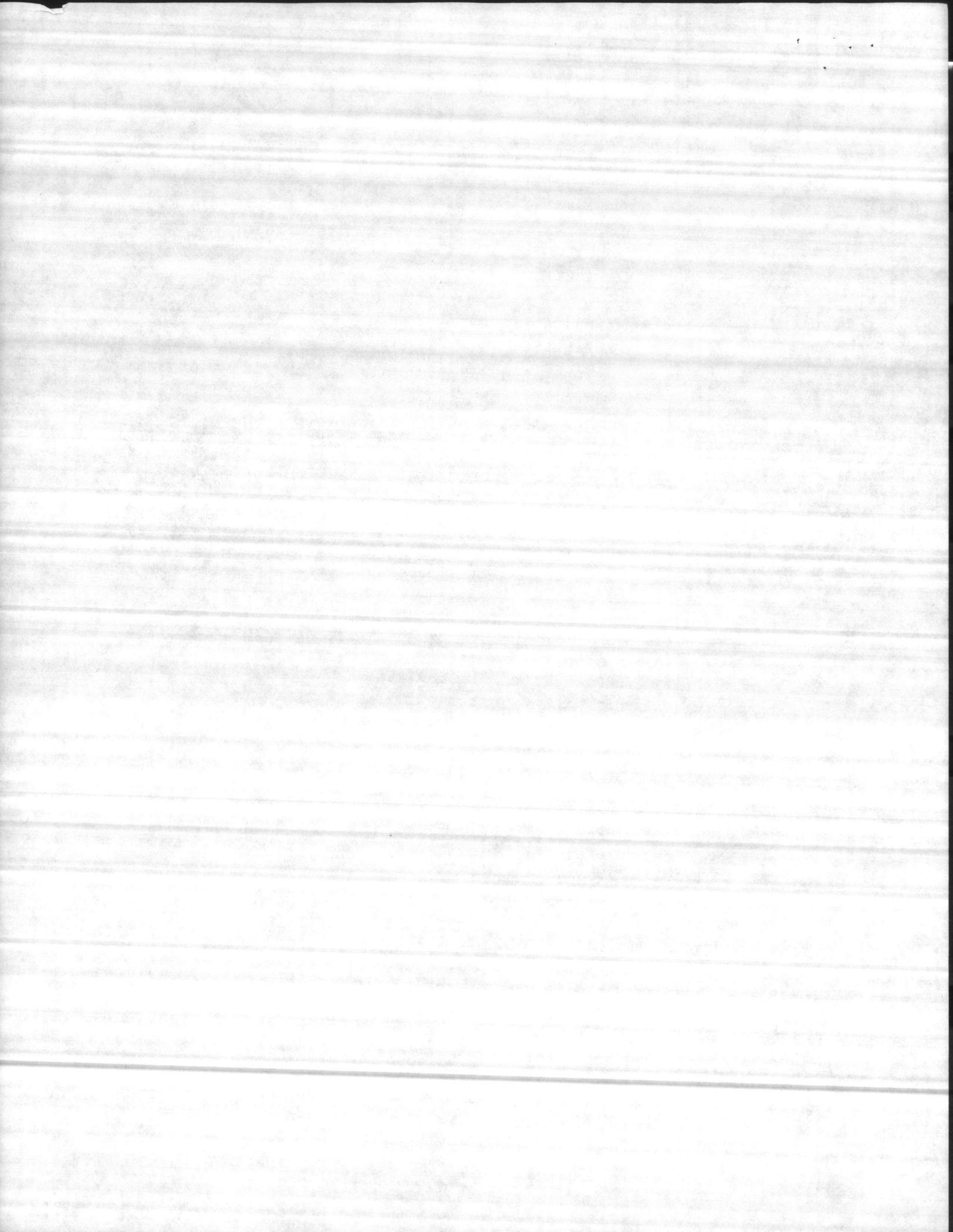
POINT PAPER

Subject: Tank Gunnery Range Modification

FACTS

1. Presently, tank and TOW crews cannot perform valid live fire training or annual qualification with tank mounted weapons and TOWs at Camp Lejeune due to the lack of sufficient distance on available ranges.
2. The ranges available for tank gunnery (G-5, G-5A, G-6 and G-7) provide for engagements of stationary and moving targets at approximately 1200 meters or less. TOW crews fire at targets in the G-10 from OP 1&2, however there are no moving targets to engage in the G-10 impact area.
3. Annual qualification for tank crews consists of shooting Table VIII (see enclosure (2)), while TOW crews must successfully engage a moving target beyond 1500 meters. This qualification should be conducted for tank crews as a portion of deploying BLT's crews served weapons evaluation.
4. Tanks crews must perform annual qualification and much of their live fire training at Fort Pickett and 29 Palms.
5. By combining the already existing G-6 and G-5/G-5A into one range allowing fire into the N-1 impact area (see the Site Map in enclosure (1)), a very satisfactory tank and TOW live fire range can be provided.

ENCLOSURE (3)



6. This proposed modification will allow tanks, TOW, and LVT's to engage both moving and stationary targets at ranges out to 2400m from stationary or moving vehicles.

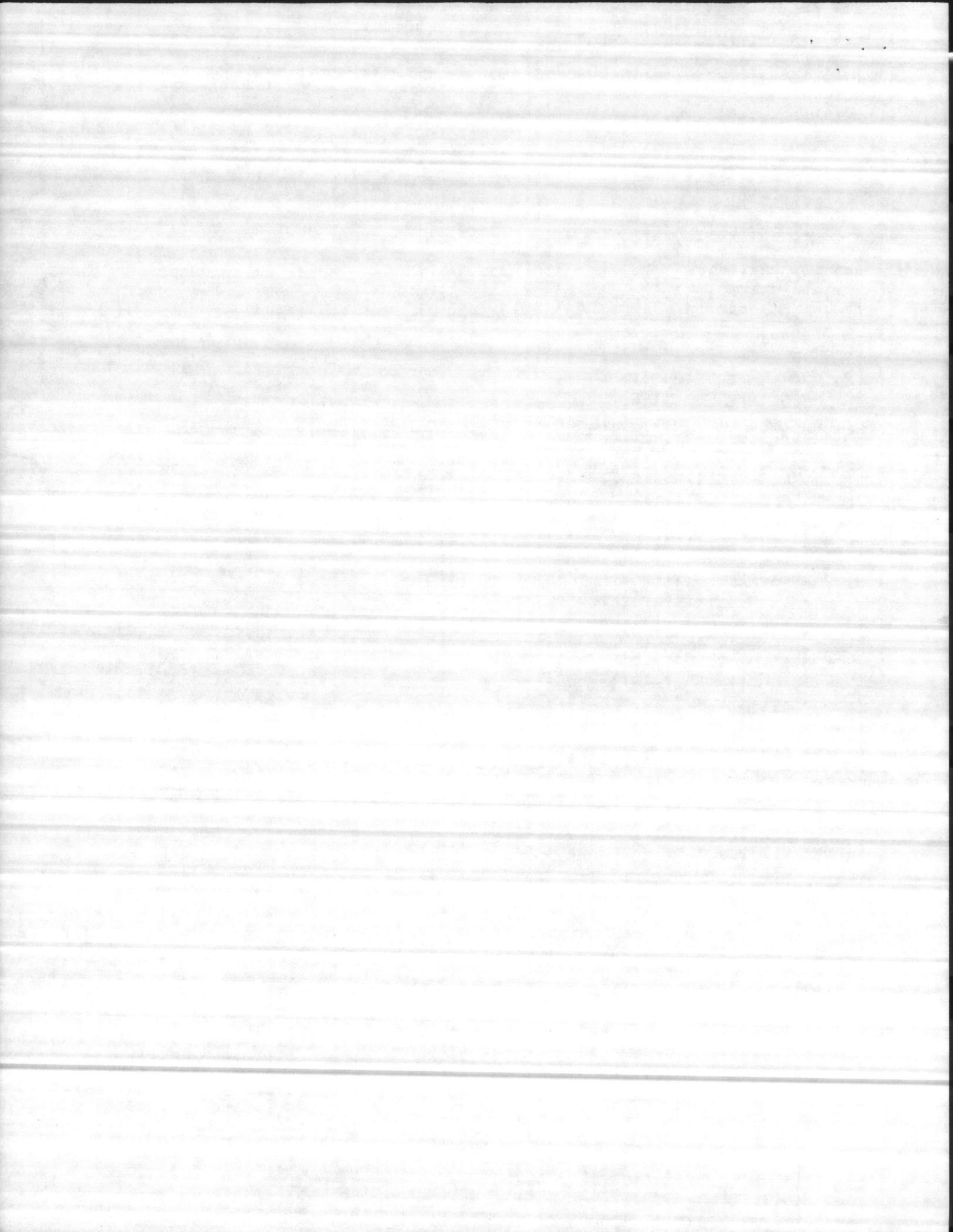
7. The proposed modified range will allow tank and TOW crews to perform annual qualification and valid live fire training at Camp Lejeune. Also, this modified range will facilitate firing TOWs from the universal mounts aboard LVTs.

8. The creation of this range will not require construction of any permanent facilities. However, telephone lines and power cables crossing the proposed range must be buried.

9. There will be little or no threat to the environment of Camp Lejeune. Base Ecology Personnel think that the G-6, G-5/G-5A areas are not ecologically sensitive and no significant changes in the environment or use of the area are planned.

10. North Carolina State Transportation personnel have verified that Marine Corps Base is authorized to detour HWY 172 traffic when the proposed range is in use. HWY 172 traffic can be easily rerouted via Lyman and Sneads Ferry roads.

11. This proposal was discussed with the Base Training Facilities Officer who advised that this range modification is consistent with the present and proposed future Base Master Plans.



SUMMARY

Tank and TOW crews must participate in frequent and effective live fire training and qualification to maintain the necessary level of proficiency. Presently, thorough effective training and qualification must wait for deployments to Fort Rickett or 29 Palms due to the lack of a satisfactory range at Camp Lejeune. By combining the G-6 and G-5/G-5A, a satisfactory range can be provided without expensive construction, lengthy clearing operations, or damage to the environment. It is recommended that the attached Preliminary Environmental Assessment be forwarded to the Base Environmental Impact Review Board requesting that the G-6 and G-5/G-5A ranges be converted into one live fire range for Tanks, TOW, and LVT's.



S. D. GLASS

1stLt USMC

Readiness

APPROVED _____ DISAPPROVED _____

G-3T

APPROVED _____ DISAPPROVED _____

G-3

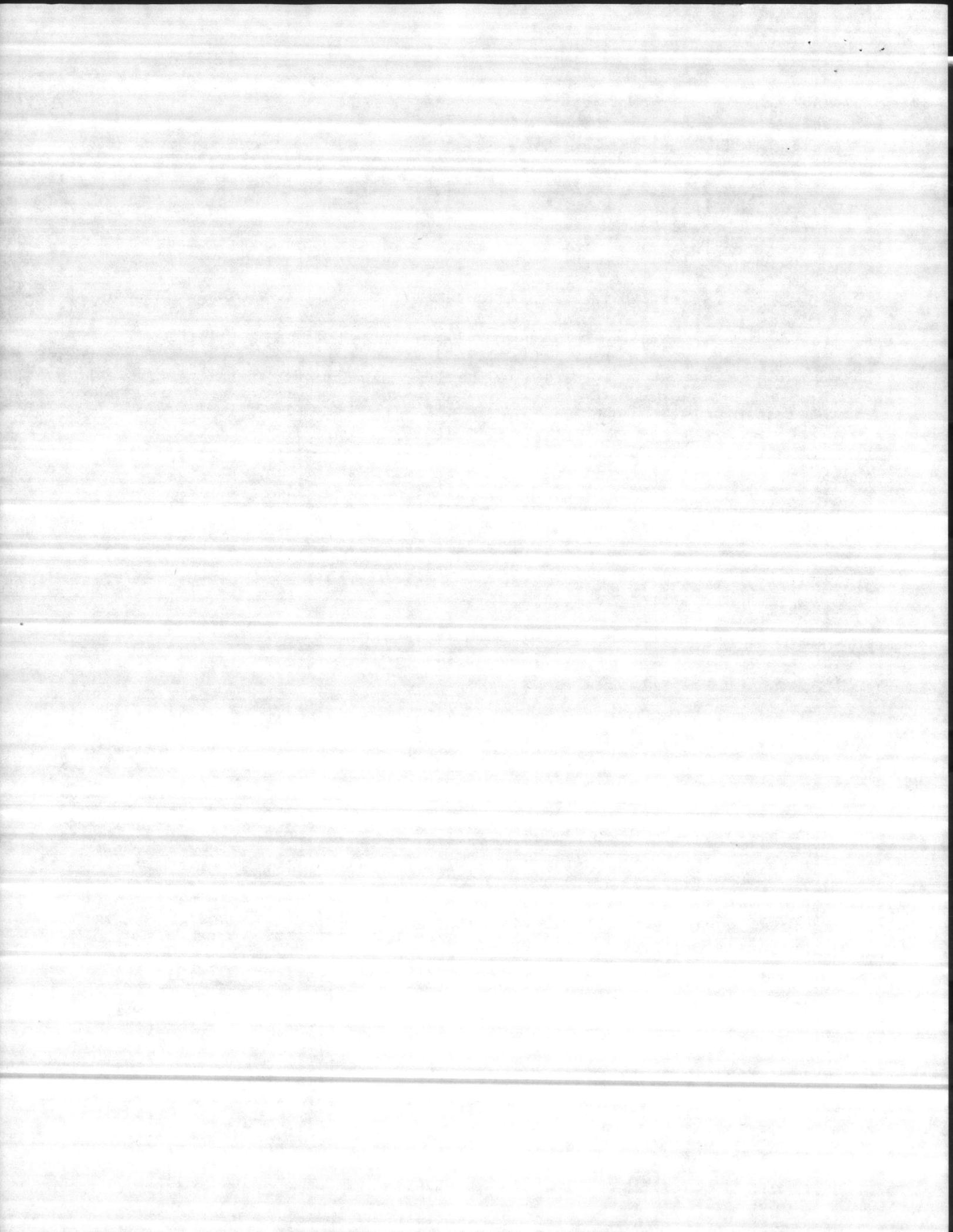
APPROVED _____ DISAPPROVED _____

G-4

APPROVED _____ DISAPPROVED _____

TkBn

APPROVED _____ DISAPPROVED _____



PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT

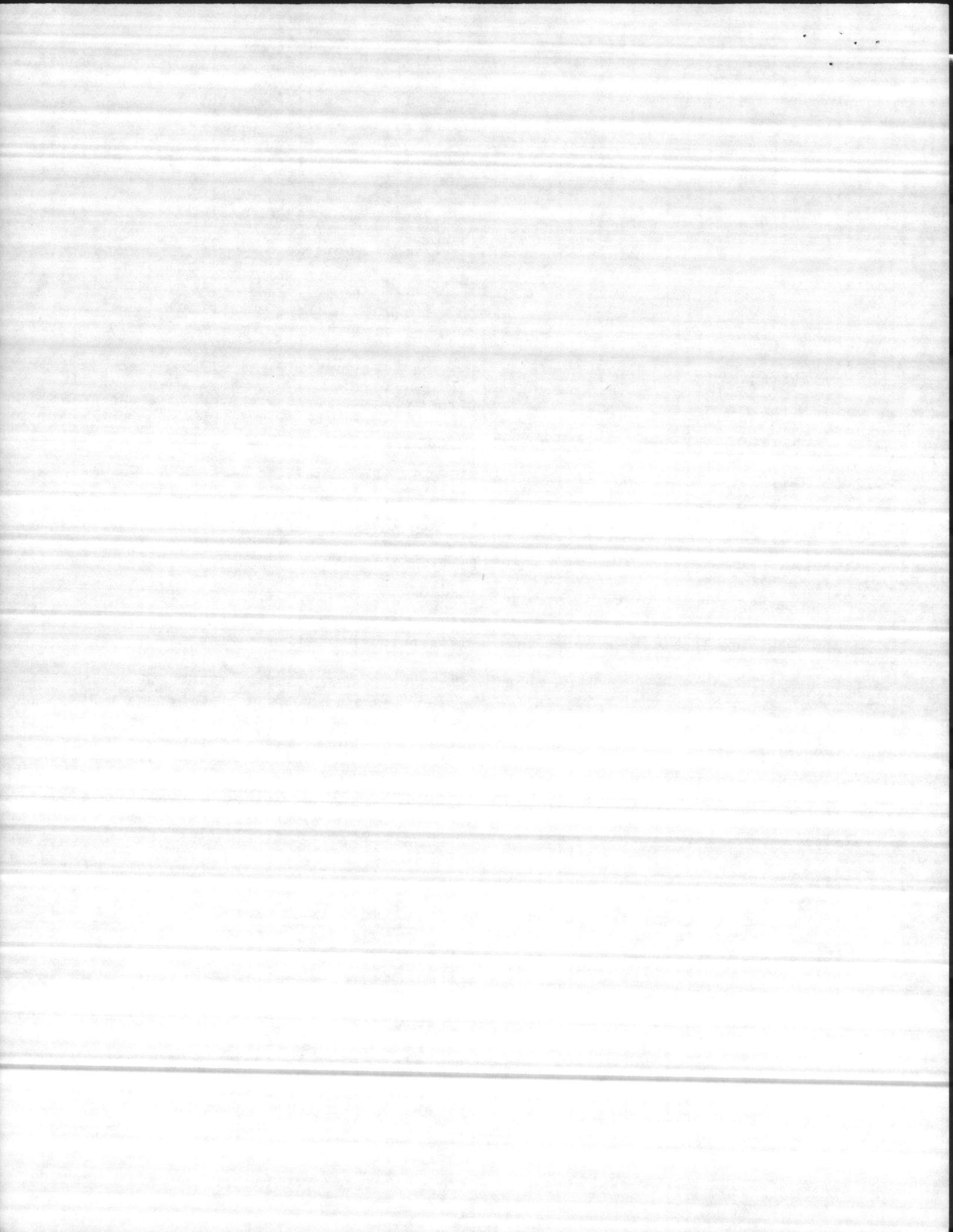
Subject: Range modification; submission of Preliminary Environmental
Impact Assessment of

Ref: (a) BO 11000.1A

1. It is requested that the G-5/G-5A and G-6 be combined into a single range providing for Tank, TOW (both jeep and LVT mounted), and LVT fire into the N-1 impact area. A Preliminary Environmental Impact Assessment is hereby submitted in accordance with reference (a).

A. Action/Project Description

(1) The significant armor threat that exists worldwide, and the Marine Corps' recent interest in Mechanized Warfare have placed Tanks and TOW's in the vital role as the MAGTF's primary Anti Armor Weapons Systems. Marine Tank and TOW units will have to engage threat armor rapidly and effectively at long ranges (1500m or greater) as they will be outnumbered in almost any conceivable combat situation. Individual Tank and TOW crews must receive frequent and effective training in acquiring and engaging a variety of targets at long range to maintain the necessary level of proficiency for mission accomplishment. Also, tank crews must fire Table VIII for annual qualification (see enclosure (2)), which involves engaging both moving and stationary targets out to 2200m while stationary or on the move. TOW crews must successfully engage a moving target beyond 1500 meters for annual qualification. The objective of this proposed range modification is to provide a range for valid live fire training of Tank, TOW crews and annual qualification of Tank and TOW crews.



(2) If this range modification is not implemented, Camp Lejeune cannot offer truly valid live fire training for Tank, TOW, and LVT crews. There will continue to be no range at Camp Lejeune on which Tank and TOW crews can qualify with Tank mounted weapons and TOW's. Tank, TOW and LVT crews must undergo valid training and regular qualification to maintain maximum effectiveness on the modern battlefield.

(3) No permanent facilities are required; however the telephone and power lines along HWY 172 must be put underground where they cross the proposed modified range.

B. Consideration of Alternatives and Site Selection

(i) Alternatives

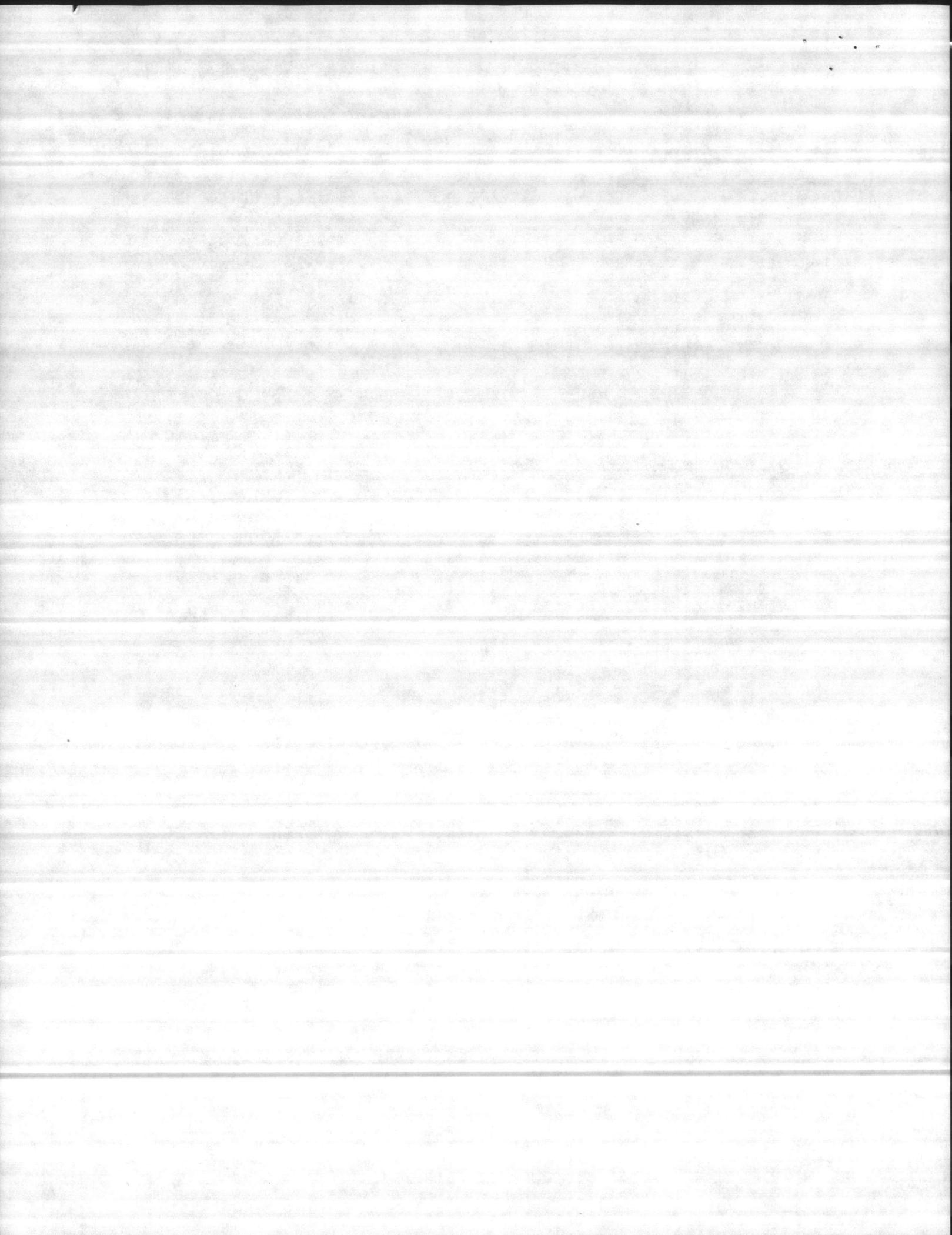
a. Keep existing ranges as they are and increase live fire training at 29 Palms and Ft. Pickett.

1. 29 Palms: a large Marine Corps desert training area with ranges allowing Tanks, TOW, and LVT's to engage targets out to the limit of their maximum effective range. Also, all tank gunnery tables can be fired on the available ranges.

2. Ft. Pickett: an Army training base in Southern Virginia with ranges allowing direct fire and observation out to 3000 meters and firing up to Table VIII.

b. Maintain existing ranges as is and require Tank, TOW, and LVT crews to engage the targets on Brown's Island for long range gunnery training.

1. Brown's Island is a sea barrier island in the Camp Lejeune N-1 impact area with a number of vehicle hulls arranged on a dune visible from the G-7 and G-5/G-5A ranges.



c. Maintain existing ranges as is and create a completely new range.

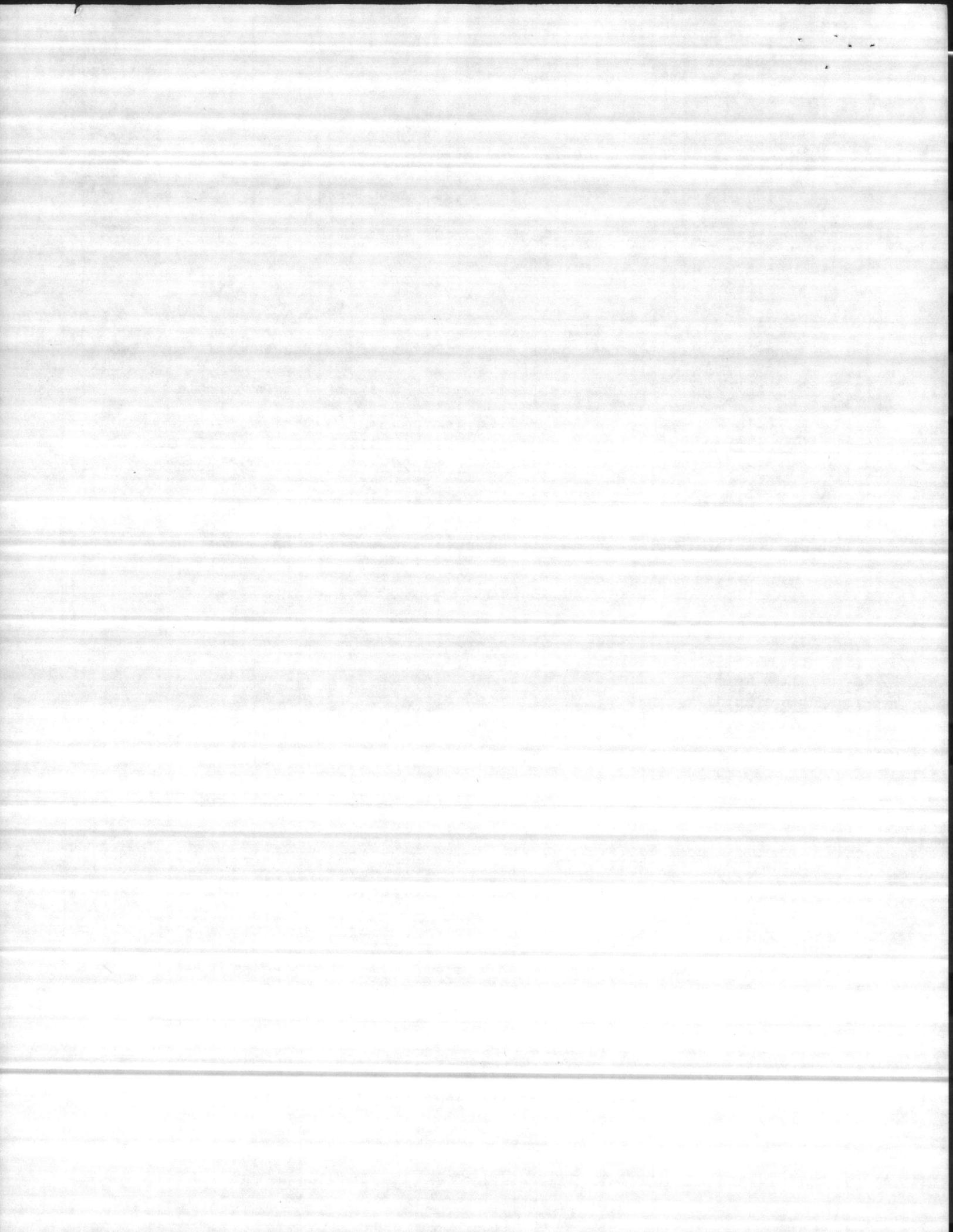
d. Extend the G-7 back to HWY 172.

(2) Combining the G-6 and G-5/G-5A ranges into one range is more suitable than increasing training at 29 Palms and Ft. Pickett because the G-6 and G-5/G-5A are accessible to many more units on a regular basis and at a lower cost. Brown's Island is unsuitable as a Tank, TOW, and LVT live fire range because it lacks moving targets and it is difficult or impossible to determine whether the target has been hit. The few sites available for a completely new tank gunnery range would require clearing large stands of trees and could be a threat to the Camp Lejeune environment. Extending the G-7 range will not provide a range adequate for firing Table VIII, and will require completely clearing a large stand of trees around the ecologically sensitive Mills Creek area.

C. Compliance with Federal, State and Local Environmental Regulations and Guidelines.

(1) Endangered Species Act. Base Environmental personnel have determined that the G-6 and G-5/G-5A are located more than 200 meters from the nearest Endangered Species habitat (a Woodpecker Colony) as required by law. The proposed range modification has no apparent impact on any endangered or threatened species.

(2) Clean Water Act. Soil erosion is the only possible significant environmental hazard. Base Environmental personnel feel that the areas level terrain and sandy soil result in a low erosion potential. Due to the approved use of the area involved for live fire of Tank-mounted weapons and ATGM's as well as tracked vehicle movement, current regulations do not appear applicable.



(3) Clean Air Act. No significant discharge of pollutants is expected.

(4) Coastal Zone Management Act (CZMA). There will be no change in the impact on sensitive coastal areas. The CZMA does not appear applicable due to the reasons listed in C(2) above.

(5) Archaeological and Historical Preservation Act. There are no known sites of historical importance within the G-6 and G-5/G-5A ranges. Also, the areas involved are approved live fire ranges and have been subject to previous disturbance. This regulation is not applicable.

(6) North Carolina Erosion and Sedimentation Regulations. Due to the reasons covered in C(2) it is determined that this regulation doesn't apply to the proposed range modification.

(7) Hazardous Materials and Hazardous Waste Disposal. The residue from ordnance authorized for use on the G-5/G-5A and G-6 ranges is not hazardous. There will be no change in the on going activities, or the ordnance authorized for use on G-6 and G-5/G-5A ranges. For the reasons cited above, this regulation should not apply.

(8) Protection of Wetlands Executive Order 11990. For the reasons covered in C(2), this proposed range modification will not present a threat to any wetlands.

(9) Sanitary Waste and Refuse Disposal. The using unit will police up and remove its own refuse. Minimal amounts are expected.

(10) Other Regulations Applicable. Traffic on HWY 172 must be detoured while the proposed range is in use. North Carolina Transportation Department personnel have confirmed that Marine Corps Base Camp Lejeune is authorized by its charter to detour traffic on base whenever and wherever necessary.

(11) Permit Requirements. None.

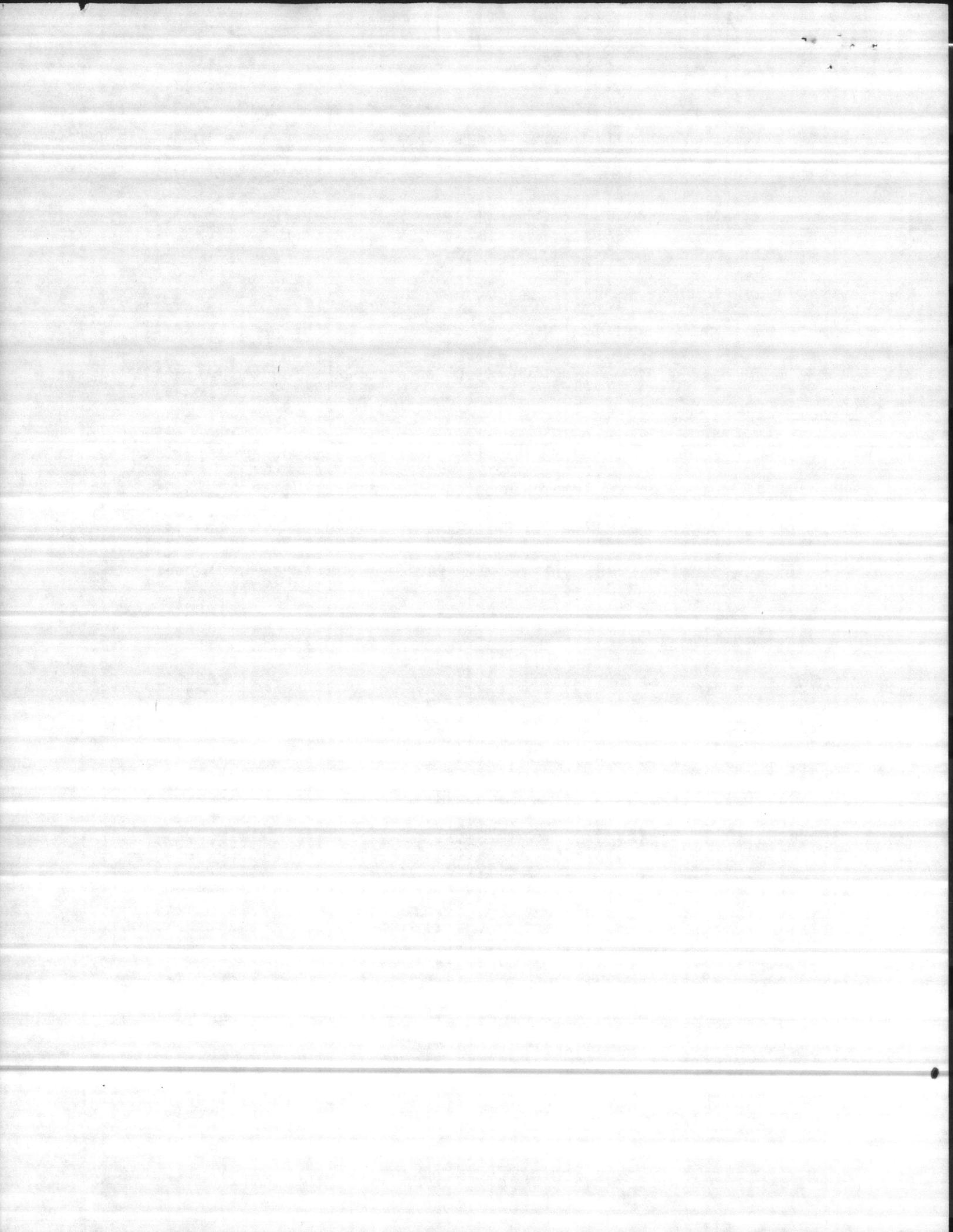
(12) Site Map. See Appendix A.

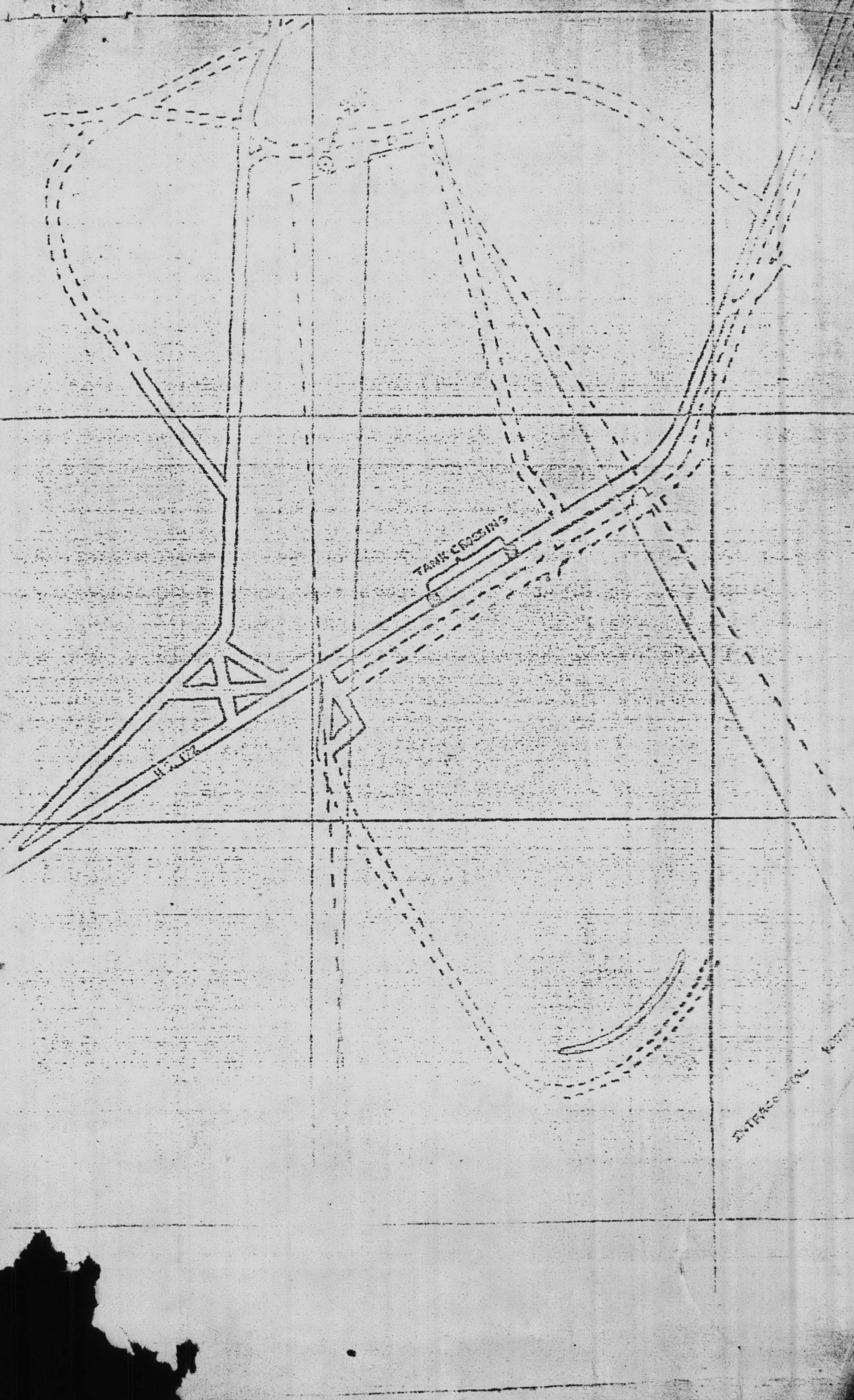
D. How does the proposed action impact on other base functions and missions.

1. The proposed range modification will enhance, the training that the G-6 and G-5/G-5A ranges were created to provide, without effecting other ranges or restricted areas however, HWY 172 traffic must be detoured via Lyman and Sneads Ferry roads while the proposed modified range is in use.

2. Consistency with the Base Master Plan. This proposed range modification was discussed with the Base Training Facilities Officer. The Training Facilities Officer indicated that this proposal is consistent with present and proposed future Base Master Plans.

JAMES L. COOPER





TANK CROSSING

42.172

ENTRANCE

