
EXECUTIVE SUMMARY

The Marine Corps has prepared this environmental assessment (EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations in 40 CFR Parts 1500-1508, and Marine Corps Order P5090.2A.

S.1 Description of the Proposed Action

The Proposed Action is to conduct a one-day Shore Fire Control Party (SFCP) Feasibility Study at Marine Corps Base Camp Lejeune (hereinafter “Camp Lejeune”), North Carolina. This study would be conducted in two phases: Phase I - firing inert (non-explosive rounds, which are actually concrete); and Phase II - live (explosive) naval gunfire (NGF) rounds into the G-10 Impact Area at Camp Lejeune. This phased approach would allow Naval gunners the opportunity to more accurately refine the computer firing solutions and mitigate the risk of targeting error when using live rounds. Once the inert firing is completed, there would be a pause in the study (approximately one hour) for the Commanding General to review the results of Phase I and determine if the study would proceed to Phase II. G-10 is an established Impact Area and has been subject to the discharge of similar ordnance. The proposed Feasibility Study would occur no earlier than mid October 2001.

The purpose of the proposed study is to determine whether Camp Lejeune is suitable to accommodate SFCP Training, which involves indirect NGF, on a routine basis. The study is one step towards fulfilling a need to evaluate alternative East Coast locations for conducting this training. SFCP training is presently limited to Vieques Island, Puerto Rico and San Clemente Island, California. Conducting SFCP training at Camp Lejeune would 1) save money associated with moving people, equipment, and ships to San Clemente Island or Vieques, 2) decrease the number of days personnel are deployed or are away from their homeport or unit by allowing them to train at or near home station, and 3) increase readiness by expanding frequency and opportunities for training.

S.2 Alternatives Considered

The purpose of the study is to determine whether Camp Lejeune is a feasible location to conduct SFCP training, which involves indirect NGF. Therefore, it is the only alternative site for such training addressed in this EA. This EA addresses the Proposed Action and No Action alternatives for conducting the proposed feasibility study.

Locations other than Camp Lejeune may be suitable for SFCP training, which involves NGF. All reasonable alternative locations would be considered, along with Camp Lejeune, in any NEPA

documentation prepared in support of the Marine Corps decision-making process for where to locate such training.

Marine Corps operations and training personnel reviewed Camp Lejeune's training areas, using existing weapons safety footprints, and initially concluded that four areas (the Greater Sandy Run Area (GSRA), the K-2 Impact Area, the N-1/BT-3 Impact Area on Brown's Island, and the G-10 Impact Area) had the potential to accommodate the non-explosive and/or live NGF rounds necessary for the SFCP Feasibility Study. Upon further study, Marine Corps personnel found that the GSRA was not a feasible alternative because it can accommodate only non-dud producing rounds and naval gun rounds would have to be fired over residential/commercial areas within Onslow County. The K-2 Impact Area was eliminated as a feasible alternative because the water depths of Onslow Bay and within the New River would not allow naval ships to get within range of the naval guns (approximately 12 miles [20 kilometers]).

While an impact area can normally accommodate non-explosive and live ordnance, it was determined that the N-1/BT-3 Impact Area on Brown's Island could not safely accommodate live ordnance from NGF due to the proximity of the Atlantic Intracoastal Waterway (AIWW). Given this limitation, the earlier concept for the test firing into the N-1/BT-3 Impact Area on Brown's Island has been eliminated from further consideration.

The G-10 Impact Area can accommodate both inert and live ordnance and is the proposed location for the SFCP Feasibility Study. Because of safety concerns regarding the skipping of inert ordnance, the Marine Corps had developed an earlier concept that included using the N-1/BT-3 Impact Area on Brown's Island for inert rounds. However, upon further evaluation by Camp Lejeune staff of gun targeting capabilities, and the ability to control skipping of inert ordnance through the azimuth of fire, the Marine Corps has determined that firing NGF rounds into the G-10 impact area has no greater chance of producing a skipped round than currently authorized and routinely conducted artillery fire into G-10. New NGF technology uses Global Positioning Systems (GPS), gyro-stabilized guns, and computer generated solutions, enhancing the accuracy of fire.

The No Action Alternative would impair the ability of the USMC to maintain its ability to train Atlantic Fleet forces in the Atlantic Fleet operational area (Section 5063 Title 10 USC) and to integrate the SFCP and naval ship crew training, so that Navy and Marine personnel can train together.

S.3 Environmental Impacts of the Proposed Action

The Feasibility Study would involve NGF. The potential for NGF noise affecting marine mammals would be minimal, as would the potential for ship collisions with marine mammals. The evaluation considered measurements and studies conducted over the past 20 years, and criteria and thresholds

for injury and harassment of marine mammals and other protected marine species from impulsive noise developed by the Navy in support of the Seawolf Shock Test FEIS (1998). With the mitigation measures proposed, the potential for injury or harassment under the Marine Mammal Protection Act, or “takes” of endangered marine mammals and sea turtles, is negligible and there would be no effect.

The Feasibility Study may affect, but is not likely to adversely affect, red-cockaded woodpeckers and rough-leaved loosestrife. Impacts to protected species are highly unlikely due to the short duration and limited intensity of the study. Also, the Feasibility Study would not introduce new impacts to Camp Lejeune habitats, or to species associated with Camp Lejeune or their habitats. Activities with impacts similar to NGF are already ongoing at Camp Lejeune. Thus, there would be no effects on threatened and endangered species.

The Feasibility Study would result in a minor disruption of vehicle and boat traffic through two one-hour closures of NC 172, Lyman Road, and the Atlantic Intracoastal Waterway (AIWW). The AIWW is presently closed about 20 times per year for current Marine Corps training operations. Closing of NC 172 has been less frequent, but has occurred in support of training exercises. Roadblocks would be put in place barring motor traffic on NC 172 and Lyman Road, and boat patrols would be placed on the AIWW to prevent entry into the surface danger zone. Existing warning signs for both facilities would be modified. The USMC would publish a “Notice to Mariners” for the date and time of the Feasibility Study.

The location in Onslow Bay from which Naval ships would fire is greater than 10 mi (16 km) from the closest populated or public areas. Based on the 145-dB level observed at 3,700 ft (1,128 m) and the closest land-to-ship distance (greater than 37,000 ft [11,278 m]), the noise levels on land resulting from NGF would be expected to be in the 90-120 dB range. These levels are considered as low risk of disturbing the public.

Recent technological advances in NSFS Fire Control Systems (e.g., new NGF technology uses GPS, gyro-stabilized guns, and computer generated solutions), munitions, and tactics techniques and procedures have greatly increased the accuracy and reliability of NGF; consequently, Surface Danger Zone (SDZ) and statistical weapon system data show that firing NGF into the G-10 Impact Area would be safe. In fact, improved NSFS safety allows clearance of overhead fires identical to cannon artillery.

The chance of a NGF round skipping is greatly reduced if the projectile is fired at an angle of 10 degrees or higher. The existing Camp Lejeune Range Procedures (Base Order P3570.1A) and Marine Corps Artillery Safety SOP, Appendix J) reduce the chance of skipping even further by prohibiting artillery from shooting at an angle lower than 15 degrees.

In accordance with Camp Lejeune’s existing procedures, naval guns would not fire at an angle of less than 15 degrees during the Feasibility Study. At 15 degrees or greater, NGF has a higher trajectory and falls at a steeper angle than currently authorized artillery operations. The steeper

angle of fall results in an even lower probability of skipping a round; therefore, firing NGF rounds into the G-10 impact area has no greater chance of producing a skipped round than currently authorized and routinely conducted artillery fire into G-10.

There are no residences under the gunfire trajectories; the closest residential area to the NGF Impact Area is about 2.5 miles (4 km) away. With respect to State Park operations, the Marine Corps would inform the North Carolina Division of Parks and Recreation of the date of the Feasibility Study when known.

Based on the safety computations and precautions described above, as well as the phased approach to the study, no significant impacts with respect to safety are expected as a result of the Feasibility Study.

In conclusion, there would be no significant environmental impacts with respect to implementation of the proposed SFCP Feasibility Study at Camp Lejeune.