

Secretary of Defense/Secretary of the Navy FY 2005 Environmental Award

Cultural Resources Management-Installation



“intergrating the past with the future...”

Marine Corps Base Camp Lejeune North Carolina

INTRODUCTION

Marine Corps Base Camp Lejeune (MCBCL), North Carolina, has a cultural heritage originating more than 9,000 years ago, and continuing with the rich traditions brought by the Marine Corps when the base was established in 1941. The Cultural Resources Management Program is charged with implementing Camp Lejeune’s strategy for assuring mission accomplishment while conserving its wealth of cultural resources. The Cultural Resources Management (CRM) Program of the Environmental Conservation Branch is part of the Environmental Management Division and consists of one full time and one contract professional archaeologist.

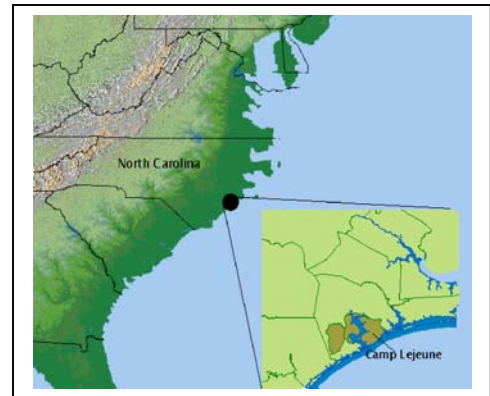
The CRM Program oversees a varied and complex array of historic properties. The more than 152,000 acres that comprise the Installation encompass an inventory of over 1200 cultural resources, with more than 1000 prehistoric and historic archaeological sites. These sites have a long history ranging from the Early Archaic Period (8000 B.C.) to early European colonization and settlement. The prehistoric sites located at Camp Lejeune are associated with known and unknown linguistic groups who once lived in the area. The later prehistoric, or formative period, is associated with the Algonquian linguistic group. In addition to extensive archaeological resources, the CRM Program manages seven historic districts and buildings comprised of 170 historic architectural properties. Constructed during the mobilization of the Marine Corps during World War II, many of Camp Lejeune’s buildings and developed areas remain as they were originally constructed, retaining a high degree of architectural integrity. To better manage and use these architectural resources, a multiple property listing has been developed that identifies and evaluates significant architectural properties and guidelines for the treatment of those properties.

The CRM Program manages Camp Lejeune’s historic properties in compliance with federal legislation, Department of Defense (DoD), Department of the Navy (DON), and Marine Corps regulations while supporting the Base’s training mission. The CRM Program is responsible for historic building management, inventorying and evaluating historic properties, conducting consultation with the North Carolina State Historic Preservation Office (NCSHPO) and the Advisory Council on Historic Preservation (ACHP), reviewing proposed construction,

maintenance, military training exercises, and associated land use undertakings, and developing and maintaining data files.

BACKGROUND

Occupying approximately 240 square miles (152,000 acres) of land in Onslow County, North Carolina, Camp Lejeune offers a wide range of geographic features that provide Marines with diverse settings for multiple training exercises. The Base topography is dominated by the New River and 14 miles of beach stretching along the Atlantic Ocean. The New River originates in northwestern Onslow County and flows to the southeast for a length of almost 25 miles. The area surrounding the New River is characterized by gently rolling slopes, flat savannah plains, bottomlands with wide floodplains, cypress swamps, and pocosins. The New River estuary and the Atlantic Ocean beaches, which provide an unsurpassed setting for amphibious training, also encouraged the adaptation and exploitation of the region's ecological resources by historic and prehistoric cultures. While the varied landscape provides the premier training facility of the Marine Corps, it also supplied an attractive environment for Native Americans and European settlers prior to the Marines arrival in 1941.



PROGRAM ACCOMPLISHMENTS

Overall Cultural Resources Management

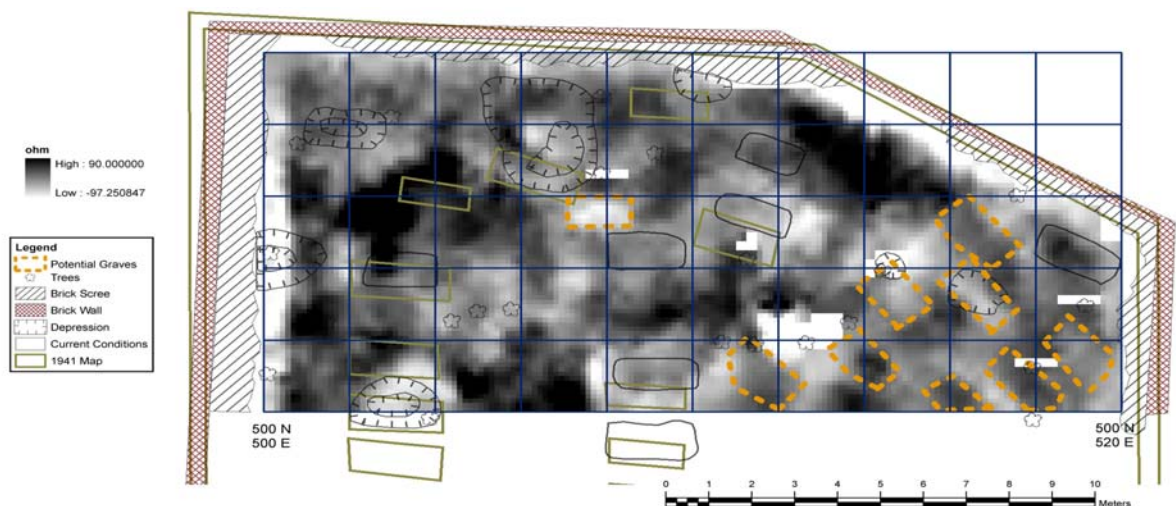
During FYs 2004-2005, the Camp Lejeune CRM Program has maintained an exemplary record of compliance of historic properties to be inventoried, evaluated, protected and managed. Camp Lejeune's enormous holdings of undisturbed forests and its historical setting on the New River provide unique challenges. To meet these challenges, an active, well-planned preservation strategy has been implemented. The soundness of the program is demonstrated by the Program's successful efforts to identify and evaluate cultural resources, develop a positive relationship with the NCSHPO, and integration of cultural resource management into new training and facility construction proposals. The following summarizes the accomplishments of the CRM Program during FYs 2004-2005:

- Oversaw the completion of archaeological survey of more than 4,000 acres of high probability soils resulting in the recordation of 412 sites.
- Completed consultation with NCSHPO for the demolition of two historic buildings in the Stones Bay Rifle Range Historic District.
- Completed alternative use analysis for 69 historic buildings in two historic districts.
- Completed National Register evaluation of 31 archaeological sites.
- Completed data recovery excavation of one archaeological site to mitigate erosion impacts from past storms and to support amphibious training missions.
- Evaluated and completed determination of National Register eligibility for the Jacksonville USO building, the oldest continuously operated USO in the world.

Highest-Use Training Area Archaeological Investigations-In FY 2005, the CRM Program initiated archaeological investigations in all of the highest-use training areas aboard Base. The purpose of the investigations is to reduce archaeological constraints in training areas most intensively utilized by completing all required archaeological site inventories and evaluation to determine their significance and National Register of Historic Places (NRHP) eligibility. The investigation is ongoing, however, archaeological survey of eight of the total nine highest-use training areas is complete; survey of the remaining highest-use training areas will be complete by January 2006.

Preliminary results of the highest-use training area archaeological investigations indicate that three of the training areas are free of archaeological constraints, and no further action will be required, one training area has a potentially NRHP eligible site that will require further work. The investigation when combined with previous studies aboard Base will result in substantial archaeological constraint-free training areas totaling more than 47,000 acres.

Legacy Research Partnership for Remote Sensing Geophysical Study-In partnership with the Department of the Army through the DoD Legacy Program, Camp Lejeune and Fort Hood, Texas, successfully initiated and completed a pilot study in 2004 to evaluate the combined effectiveness of near-surface remote sensing geophysical methods in conjunction with trace element soils chemical analysis to non-intrusively identify the location of human burials without disturbing the burial feature. Through the use of soils resistivity meters to locate buried anomalies, trace element analysis of humic acid and total phosphate content in soil samples, the presence of human remains on archaeological sites was verifiable without removing or disturbing the remains.



Interpretation of potential graves from cemetery, overlaid on the soil resistance data set.

This project produced significant results that contribute to the effective management of human burials and other important cultural resources. The research benefits of the study include:

- The creation of an intensive data collection methodology for geophysical surveys.
- Effective identification of burials and other archaeological features which can result in timelier cost effective investigations.
- Development of soil chemistry testing that can contribute to the identification of burials with minimal sampling of the soil matrix.
- Demonstration of the effectiveness of geophysical investigations in problematic areas such as cemeteries and sites located on extremely sandy soils.

With the recent ACHP focus on changes to federal guidelines for the treatment of human remains and grave goods, the development of non-intrusive techniques for identifying human burial locations has become increasingly important.

Cultural Resource Surveys/National Register Evaluations-Camp Lejeune contains a number of archaeological properties managed by the CRM Program. These properties include more than 1000 historic and prehistoric sites. Fourteen of these archaeological sites are currently eligible for listing on the National Register of Historic Places. Evaluation of more than 250 potentially eligible archaeological sites is ongoing. Camp Lejeune is currently in the seventh year of a ten-year plan implemented to survey all remaining high probability areas for archaeological sites. An architectural inventory and evaluation revision study is nearing completion, and consultation with NCSHPO resulted in the identification and consensus determination that approximately 170 buildings and 8 historic districts are eligible for inclusion in the National Register based on the role they played in Marine mobilization during the World War II era.

Historic Buildings Management

The CRM Program manages more than 170 historic buildings in eight historic districts. Beginning in FY 2004, Camp Lejeune consulted with NCSHPO and the ACHP in the



Historic General Officer's Quarters transferred as result of Public/Private Venture.

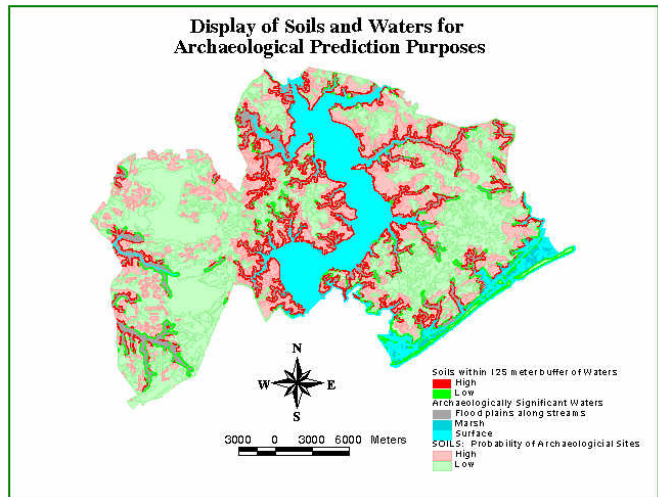
development of a Programmatic Agreement (PA) for the treatment of historic properties associated with the Public/Private Venture for Family Housing aboard Base. In September 2005, the PA was ratified and executed, resulting in the transfer of five officer and three general officer family housing quarters that were eligible for inclusion in the NRHP.

During the reporting period, consultation with NCSHPO and other stakeholders was initiated for the demolition of 29 historic buildings determined eligible for the NRHP in two historic districts. NCSHPO has agreed to the demolitions, and further consultation with stakeholders and the ACHP is continuing for

execution of a Memorandum of Agreement (MOA) to mitigate the impact of the proposed demolitions. Mitigation would consist of photographic documentation and developing public interpretive literature detailing the Marine Corps history of the historic districts involved. In addition, consultation with NCSHPO for the demolition of two contributing historic buildings to the Stones Bay Rifle Range Historic District was completed during 2004, and demolition may now proceed.

Archaeological Survey Model

The CRM Program continues to refine the archaeological survey model. High probability areas that are within 125 meters of water and associated floodplain soils are a determining factor. The Graphic Information System (GIS) plays an integral role in the development of this model, which has resulted in cost savings to the government, as well as expedited project reviews.



Archaeological Resources

Camp Lejeune's CRM Staff have accomplished the following goals in archaeological resource management during FYs 2004-2005:

- Site inventory
- Site protection and compliance
- Data recovery
- Research and scientific contributions

Site Inventory-Inventoried sites on Camp Lejeune include 1,049 known archaeological sites. Information is stored on the Base's archaeological sites database. A total of 14 sites have been determined eligible for listing on the National Register of Historic Places, while 776 have been evaluated as not eligible for listing. The remaining 259 recorded sites have not been assessed and are considered potentially eligible. The archaeological sites under Camp Lejeune's management include sites dating from the Early Archaic Period (8,000 B.C.) through the early 20th century settlement of eastern North Carolina.

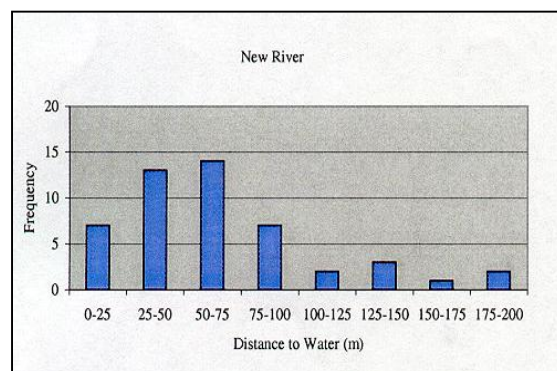
Site Protection and Compliance-All proposed training actions at Camp Lejeune are reviewed through the NEPA process to evaluate their impact on recorded archaeological sites. In addition, archaeological surveys are conducted for those proposed actions that may impact unrecorded sites. To protect recorded sites from inadvertent damage by military units in the field, the CRM Program clearly marks its National Register eligible sites as off-limits to vehicular traffic and any form of digging. Proposed actions that may impact eligible sites require consultation with the State Historic Preservation Office.



**Archaeological Evaluation
Excavation of Subsurface
Prehistoric Feature.**

Data Recovery-The primary objective of data recovery is to mitigate adverse impacts from proposed training, development, or silvicultural activities on NR-eligible or potentially eligible sites when there is no practicable alternative. The data recovery effort is maximized through coordination with the State Historic Preservation Office. Research orientation, a central focus of eligibility testing, applies known recovery techniques and methods, which contribute important information to the existing database. The CRM Program oversaw the completion of data recovery on one National Register eligible site in the reporting period.

Research and Scientific Contributions- In consultation with the State Historic Preservation Office, the CRM Program incorporates research initiatives and scientific contributions into Camp Lejeune's long-term goals of inventorying its lands and providing eligibility testing of the resources requiring further analysis. Research focuses on historic and prehistoric occupation, subsistence, and population distributions in eastern North Carolina, with the goals of better defining and understanding the archaeological record and adding to the archeological database.



Distance to Water for Woodland Sites

Cultural Resources Education

Camp Lejeune's CRM Program conducts presentations on cultural resources to all Base personnel through individual and group briefings. As part of this effort, the Base has compiled the Trainer's Environmental Handbook to provide procedures for the encounter of cultural resources in the field. In addition, the Base conducts a Comprehensive Environmental Training Program that includes cultural resources protection.

The CRM Program at Camp Lejeune also contributes to the educational programs of academic institutions by performing large-scale archaeological surveys, eligibility testing, and data recovery in coastal North Carolina. The information generated from these studies provides insight into the functions of past cultures, both historic and prehistoric.

Mission Enhancements

Camp Lejeune has made dramatic changes in managing its cultural resources through the use of improved inventory strategies and eligibility testing. The CRM Program continues to refine the predictive site-soil survey model to be even more accurate. The elimination of lands with low probability for cultural resources and previously disturbed areas from further review has opened more areas for training maneuvers. Mission enhancement has occurred through these investigations by assessing lands with a low probability of significant resources, and focusing resources on lands with a higher probability, thereby enlarging the area of accessibility. Continued refinement of the predictive model and investigation of high probability areas in the most intensively used training areas will reduce future impacts to cultural resources and increase the area available for Camp Lejeune's training mission.