FINAL

INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN FOR EDWARDS AIR FORCE BASE, CALIFORNIA

Edwards AFB Plan 32-7065

September 2005

This document was funded by the Legacy Resource Management Program

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The cover photographs represent the diversity of Archaeological finds associated with Edwards Air Force Base, California. The vehicle is a circa 1936 to 1938 military truck used by the United States Air Force to refuel aircraft. The drawings are American Indian pictographs found in the Ettinger Cave area and superimposed over a rock shelter. (Photographs courtesy of the Base Historic Preservation Office.)

Prepared for
Department of the Air Force
Edwards Air Force Base
Base Historic Preservation Office

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Prepared by

Engineer Research and Development Center
Construction Engineering Research Laboratory
P.O. Box 9005
Champaign IL 61826-9005

JT3/CH2M HILL
190 S. Wolfe, Bldg 1260
Edwards Air Force Base, CA 93523

Project Team: Suzanne K. Loechl, M.L.A. (Principal Investigator); Tad Britt, M.A.; William Meyer, M.L.A.; Robert R. Sands, Ph.D.; Adam Smith, M.Arch.; Julie L. Webster, RA; Lucy A. Whalley, Ph.D.

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INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN (Edwards AFB 32-7065) IMPLEMENTATION

Edwards AFB, California

Final
September 2005

Approved by:

_____
DREW D. JETTER, Colonel, USAF
Commander, Air 95th Air Base Wing

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INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN (EDWARDS AFB PLAN 32-7065) REVIEWERS

Edwards Air Force Base, California

Final
September 2005

Reviewed by:

Martyn D. Tagg
Cultural Resources Manager,
HQ AFMC/CEVQ

Richard H. Norwood
Base Historic Preservation Officer,
95 ABW/EMXC

Knox Mellon, Ph.D.
Government of the State of California
State Historic Preservation Officer

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PART I: PLANNING AND EXECUTION

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1.0 INTRODUCTION

1.1 Intent and Purpose of ICRMP

Air Force Instruction (AFI) 32-7065 and Department of Defense Instruction (DODI) 4715.3 require Edwards AFB (EASB) to have an Integrated Cultural Resources Management Plan (ICRMP). This 5-year ICRMP is a component of the Edwards Air Force Base Master Plan and is 95th Air Base Wing/Commander's (95 ABW/CC) decision document for cultural resources management actions and for specific cultural resources compliance procedures. Cultural resources are buildings, structures, sites, districts, and objects that may be eligible for or included on the National Register of Historic Places (DOD Instruction [DODI] 4715.3). The Edwards AFB ICRMP integrates the entirety of the base cultural resources program with ongoing mission activities, allows for ready identification of potential conflicts between the base's mission and cultural resources, and identifies compliance actions necessary to maintain the availability of mission-essential properties and acreage. The ICRMP supersedes and replaces the Cultural Resources Management Plan, Edwards AFB Plan 32-7065 dated 1 March 1981, and is updated annually and revised every 5 years.

The ICRMP receives a major review from the Installation Commander 95 ABW on a 5-year cycle. The ICRMP provides a forum to examine long-term management goals, to explore the intended focus of efforts on critical issues, to achieve consensus about these concerns, and provide an annual update on the status of knowledge of the base's cultural resources (section 1.8). Thus, as it evolves, the periodic major reviews intentionally serve as review for command interests. The 95 ABW/CC approval of the plan signals confidence in program management and serves as delegation of authority and responsibility to the Base Historic Preservation Officer (BHPO). The BHPO provides day-to-day management for cultural resources. The BHPO duties are laid out in section 2.2.

The Environmental Management Directorate (EM) manages cultural resources. The EM is responsible for administering the National Environmental Protection Act (NEPA) (42 United States Code [U.S.C.] 4321, et seq.) process. The BHPO, within the EM office, is a federal employee who meets the Secretary of Interior's *Professional Qualifications Standards*, 1983 (http://www2.cr.nps.gov/laws/ProfQual83.htm) part of the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*, September 29, 1983. This person is appointed BHPO with oversight responsibility for the Cultural Resources Management (CRM) program and multiple contractors that support the BHPO. The BHPO prepares annual work plans that provide for implementation of the ICRMP. The ICRMP is a guidance tool that needs to be flexible and is sensitive to unanticipated changes in the base mission over time. The ICRMP describes an integrated cultural resources management program designed to minimize impacts to the military mission; meet compliance requirements; and identify, enhance, and implement program efficiencies. Cultural resources management becomes integrated when the BHPO has established processes to:

a. Plan for the improvement of the program over the short and long term,

b. Maintain the existing program,

c. Coordinate with other base offices that have the potential to impact cultural resources,

d. Consult with outside entities who have a stake in cultural resources on the base, and

e. Monitor the success of the program.

1.2 ICRMP Organization and Audience

The Edwards AFB ICRMP is designed as a modular document, where various sections of the plan are intended for different users. It is divided into two major parts: Part I, Planning and Execution; and Part II, Cultural Resources Management. Part I is intended as the decision document for the Installation Commander. It describes the intent of the ICRMP, the nature of the mission, and compliance requirements. Part II is intended for use by the BHPO and other base offices that need to coordinate activities with the BHPO. It outlines management processes to maintain, monitor, and improve the cultural resources program. An integration section explains coordination of cultural resources management activities with other base offices.

1.2.1 Integration in the NEPA Process

The primary users of the ICRMP are the cultural resources staff and other functional areas in EM involved in the environmental review process. The Cultural Resources program is integrated with other EM programs, (i.e., Natural Resources and the Environmental Impact Analysis Program [EIAP], in the NEPA and Comprehensive Environmental Response Compensation and Liability Act [CERCLA] processes), to ensure compliance. Once NEPA and CERCLA participation is concluded, the Cultural Resources office monitors progress until satisfactory completion and compliance is achieved.

The Cultural Resources program is not exempt from the NEPA process. Actions that may include effects that are irreversible in their impact on the environment, such as extensive Phase II or Phase III testing and evaluation, or have the potential to produce harmful effects on fieldworkers fall within the scope of environmental review. Completion of the appropriate Air Force (AF) Form 813, 332, or 103 is necessary. For nonroutine undertakings or routine actions that change in scope or impact, a separate review is needed when the complete scope of the corresponding proposal is understood.

The following organizations are involved, directly or indirectly, with cultural resources protection at Edwards AFB. The ICRMP has been coordinated with each of these organizations.

a. California State Historic Preservation Office (SHPO);
b. Federally recognized tribal governments;
c. Private- and public-interest clubs, organizations;
d. California Military Environmental Coordination Committee (CMECC) and its implementation arm, the Cultural Resources Process Action Team (CRPAT); and
e. Planning and Zoning Committees (P&Z), and the Environmental Protection Committee (EPC) and its subcommittees, Assessment Review Group (ARG), and Natural/Cultural Resources subcommittee (NCRS).

1.3 Location and Setting

Edwards AFB occupies approximately 301,114 acres of the Antelope Valley in the western Mojave Desert of southern California. Most of the Edwards AFB facilities are located at Main Base and South Base, on the west margin of Rogers Lake at an elevation of 2,270 feet. Several communities serve Edwards AFB. Rosamond is approximately 15 miles west of Main Base, on Highway 14; the town of Mojave, located at the junction of Highways 14 and 58, is about 27 miles from Main Base by way of Highway 58; the sprawling adjacent cities of Lancaster and Palmdale are approximately 25 miles south of the base via Highway 14. Los Angeles is approximately 100 miles to the south via Highways 14 and 5, while Bakersfield is approximately 85 miles to the northwest via Highway 58. Barstow is approximately

55 miles east of the Edwards AFB, also on Highway 58. Figure I-1 graphically depicts the location of Edwards AFB in Southern California.

As of March 2004, the Edwards AFB community is made up of approximately 3,700 Air Force, 8,600 civilians, 5,100 family members, and an Air Force retirement community in the Edwards AFB area of 12,600 retirees. There are approximately 3,700 buildings and structures at Edwards AFB. A majority of the buildings consists of permanent housing with about 2,000 family units, bachelor officer quarters, and barracks (Air Force Flight Test Center [AFFTC] 2004).

1.4 Mission Statements

The Air Force is made up of a number of separate commands with different mission functions. One of these commands is AFMC whose function is to research, develop, test, acquire, deliver, and logistically support all USAF weapons systems and military nonweapon systems and ensure that the operational commands have the most capable aircraft, missiles, and support equipment possible. In addition to the USAF, the AFMC also supports other United States (U.S.) military forces, U.S. Allies, the DOD, National Aeronautics Space Administration (NASA), and commercial customers.

The AFFTC is one of the installations within the AFMC. The mission of the AFFTC is to conduct and support research, development, test, and evaluation of manned and unmanned aerospace. Its primary tasks include flight testing, flight evaluation, recovery of research vehicles, development testing of aerodynamic decelerators, operating the USAF Test Pilot School, and improving and modernizing test techniques, ranges, and test facilities. In addition to experimental aircraft, total weapons systems such as the Joint Strike Fighter and the Lockheed Martin F-22 Raptor are tested. To support its test mission, the AFFTC operates and manages the Edwards Flight Test Range. For more information about the Air Force, commands, or base missions go to the Edwards web page (http://www.edwards.af.mil).

1.5 Mission Activities and Impacts to Cultural Resources

Potential effects to cultural resources results from direct mission activities, such as flight testing, or activities indirectly related to mission activities, such as maintenance of infrastructure. A more detailed description of mission-related activities and impacts to cultural resources is in section 3.0.

1.6 Statutes and Regulations

Major statutes and regulations that pertain to the management of cultural resources on Air Force bases are listed and described in appendix A.

A. Statutes and regulations that have the full text on the World Wide Web are underlined.

1.7 Future Requirements

This section describes future management requirements. A review of the process involved in establishing funding for requirements is included. Air Force guidance on determining and applying requirements can be found in appendix B, Cultural Resources Management Requirements of the *Air Force Materiel Command Standardized Environmental Compliance and Conservation Programming Guidance (SPG)* (Air Force Materiel Command [AFMC] 2000).

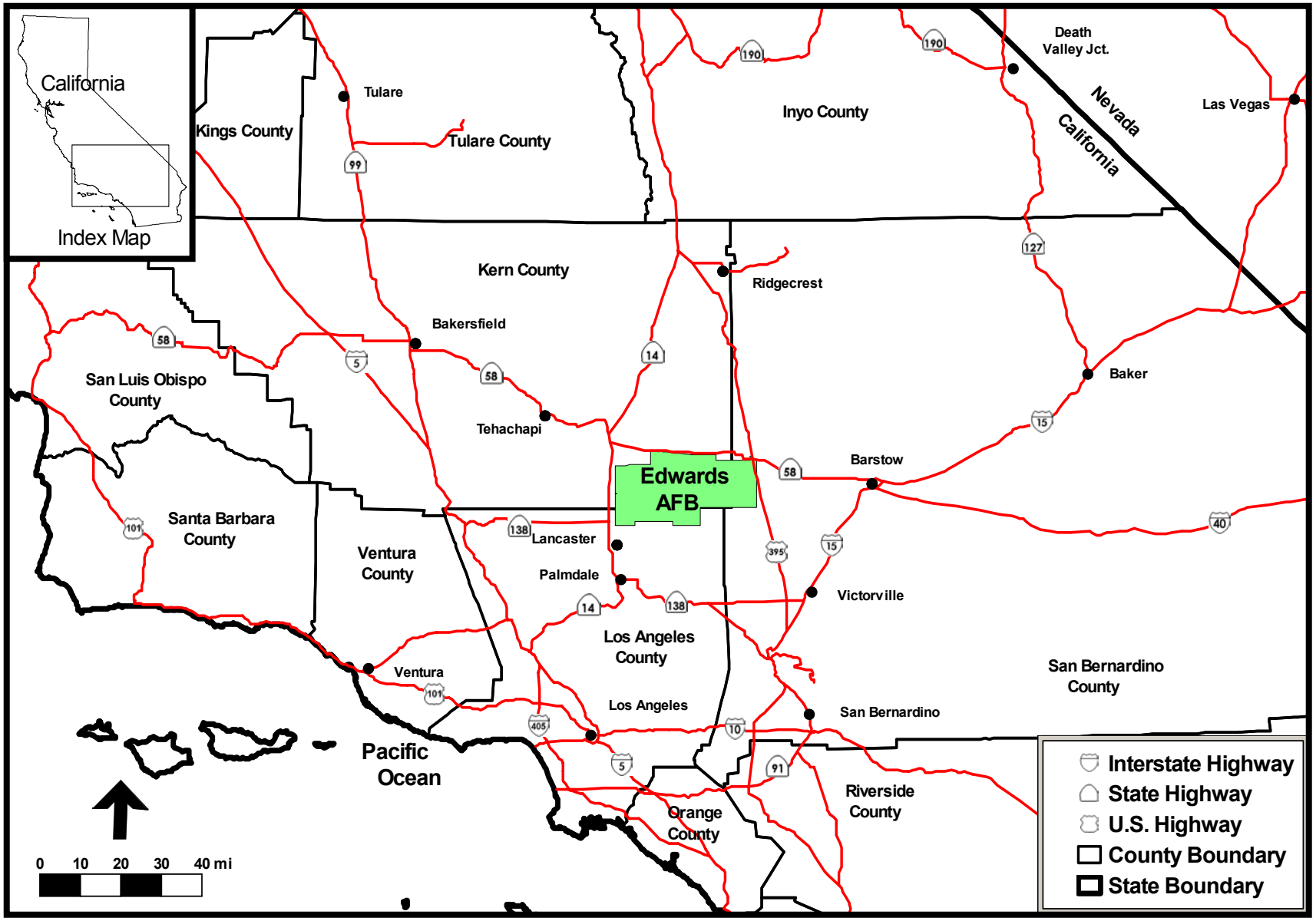

Figure I-1. Edwards Air Force Base Vicinity Map

1.7.1 Budgeting and Programming for Funding and Requirements

Every year the BHPO requests funding for both general cultural resources support and specific projects in order to have a well-rounded program. The BHPO also prepares a 7-year plan of cultural resources projects that require funding. This is called a Program Objective Memorandum (POM). The BHPO reviews, updates, and adds additional out-year project requirements to the POM each year based on the latest information and priorities. This is accomplished using a database developed by the USAF for this purpose: the Automated Civil Engineer System (ACES). The information on projects in the POM provides a general narrative of the requirements, a justification (including the legal citation), and a cost estimate. Major Command (MAJCOM) and Air Staff review the information in the database for validity and appropriateness. Projects not meeting the proper criteria are deleted or modified to be acceptable. Projects are classified as operation and support (O&S) for recurring operating/ services type requirements, Level 1 if they address an existing violation of cultural resources regulations, Level 2 if they address a future violation, or Level 3 if they are proactive projects that promote good management. The description of O&S and class 1 levels of service, as defined in *Air Force Conservation Programming and Budgeting Guidance* (Headquarters Air Force Matieriel Command/Civil Engineer [HQ AFMC/CE] 2000) can be found in appendix B.

In brief, there are 11 Titles accepted as line items for cultural resources projects in the SPG (appendix C). Each Title has a legal driver requiring Air Force action to comply with law or regulation. Each Title also has two Levels of Service (LOS): the Required LOS for high-risk levels and Expanded LOS for low risk levels. The high risk or Required LOS consists of the minimum activities needed to fulfill this requirement. If not completed, these activities present a high risk for legal violations and/or mission delay. The low risk level is a legal requirement but is described as "above and beyond" the required compliance level. These activities do not receive the highest priority in funding because they are not specifically required to comply with a law or regulation.

There are additional programming requirements. Major Command maintains a command-specific database called the "EQ" (Environmental Quality) Access database that allows input of information on proposed projects. This database requires a detailed project narrative, project justification, and engineering cost estimate. A future programming goal is to integrate the best qualities of the EQ database with the ACES database so that AFMC bases have only one database. While this database may be replaced by the ACES database in the future, presently the EQ database allows MAJCOM to review projects in detail. This review may result in either requiring additional base input to better describe, justify and estimate project costs, or may result in validation of the project.

After MAJCOM and Air Staff validate a request for funding, it becomes a requirement. However, after a proposal becomes a requirement, this process does not guarantee funding. Depending on how much money is available, projects may be funded for the full amount, for less than the full amount, or not funded at all. Cultural Resource projects are prioritized with other unfunded Conservation projects (Natural Resources and EIAP) and funded based on priority. If there are no additional funds available, the project may roll over into the following year's requirements. As a general rule, the priority by which valid projects are funded is based on their classification (O&S being top priority and Level 3 being the lowest). Generally, of the four types of projects (O&S through Level 3), funding is typically received for only O&S and Level 1 projects. In recent fiscal years, funding for all Edwards AFB O&S projects and a number of Level 1 projects has been obtained.

1.7.2 Resource Requirements

As with any governmental agency, there is no guarantee that funding will exist for all valid projects. Under normal operating fiscal years, O&S projects are the highest priority for funding. Future

management requirements for issues pertaining to the general resources are derived from a consideration of current Status of Knowledge with current AFMC Levels of Service Standards for cultural resources in both the recurring (O&S) and nonrecurring (Level 1) categories. Within each Required LOS, there is a priority to which of the levels of service should be met. The following paragraphs list O&S and Class 1 requirements that contain the necessary levels that must normally be met (HQ USAF/ILE memorandum of 11 September 2000; HQ AFMC/CE Memo, 24 October 2000). The list is not in any specific order of priority and items may be rearranged in any given year based on revised priorities. Titles 1 through 4 can be considered General Resource Requirements and fall within O&S (recurring) requirements. Titles 5 through 11 can be considered program-specific requirements and fall within Class 1 (nonrecurring) requirements. A summary of existing levels of service met by Edwards AFB, and suggested future goals for meeting required levels, is found in appendix C. Edwards AFB does not generally program level 2 or 3 projects because there are abundant level 1 projects that need completion; and level 2 and 3 projects are unlikely to be funded.

1.7.2.1 General Resource Requirements: O&S (Recurring) Requirements

Title 1: Public Awareness, Cultural. Levels of service relate to increased awareness of base historic property significance and the need to protect these resources.

Title 2: Consultation, American Indian. Levels of service relate to the recognition of Indian rights to access sacred sites and objects, maintenance of government-to-government relations with recognized tribes, and the establishment of Indian ownership of human remains and funerary items.

Title 3: Monitor, Historic Property. Levels of service involve continuous monitoring of historic property to maintain and preserve its cultural values of significant historic properties.

Title 4: Curation, Base/Curation, Museum. Levels of service preserve Archaeological collections and associated records in an acceptable repository.

1.7.2.2 Program-Specific Resource Requirements: Nonrecurring Requirements

Title 5: Consultation, section 106. There is only a Required level of service for Title 5, and that entails installations administering cultural resources under their control and considering the effect of their actions on these resources.

Title 6: Evaluation, Archaeological Sites. There is only a Required level of service for Title 6, to identify and formally evaluate National Register eligibility for all cultural properties under the installation's jurisdiction.

Title 7: Inventory, Archaeological. Levels of service relate to the requirement that each installation identify historic properties under its jurisdiction and complete base wide inventories by established deadlines.

Title 8: Inventory, Building. Levels of service relate to the requirement that each installation identify historic properties under its jurisdiction and complete base wide inventories by established deadlines.

Title 9: National Register Nomination. Levels of service relate to the requirement of each installation to nominate qualifying properties to the National Register.

Title 10: Plan, CRMP/Plan Revision, (Integrated) Cultural Resources Management Plan (ICRMP). There is only one Required level of service; for each installation to develop and use cultural resource management plans that establish program procedures and guidelines, and to revise the plan every 5 years.

Title 11: Protect, Historic Property. There is only one Required level of service and that necessitates each installation maintain and preserve the cultural values of significant historic properties and prevent the loss and destruction of such properties.

1.8 Status of Knowledge

The status of knowledge (SOK) summarizes and/or provides access to available information regarding cultural resources. This component helps satisfy the requirement of DODI 4715.3 for a "summary of known cultural-resources information." It is necessary to identify and evaluate sensitive and significant resources in order to integrate legal and stewardship requirements with military requirements so that defense preparedness is maintained.

This section includes a description of each resource type (Archaeological, paleontological, traditional cultural properties, historic buildings and structures, historic land use areas, monuments and memorials, and documents). It contains lists of the resources or efforts completed for each resource area, a description of the work, and references. The purpose is to identify existing management efforts in order to determine future requirements in the cultural resources program.

1.8.1 Archaeological Resources

Archaeological sites may be defined as the physical evidence of any past human activity. The Archaeological Resources Protection Act (ARPA) (16 U.S.C. 470aa--470ll) defines Archaeological resources as "material remains of past human life or activities which are of Archaeological interest, as determined under uniform regulations." Examples of Archaeological sites include burials, artifacts, shell middens, cemeteries, rock piles, rock shelters, chimney falls, brick walls, piers, shipwrecks, earthworks, trash pits and piles, and building remains. On federal lands, the Antiquities Act of 1906 (16 U.S.C. 431–433) and ARPA of 1979 limit Archaeological resources to sites or items that are 100 years or older. However, under the National Historic Preservation Action (NHPA) of 1966 (16 U.S.C. 470 et seq), as amended, (sections 110 and 106), sites more than 50 years old, and in rare cases of exceptional significance less than 50 years, must be evaluated for their cultural significance.

1.8.1.1 Summary of Completed Projects

Since cultural resource investigations began at Edwards AFB in 1973, over 1,000 reports have been completed as of July 2005. These reports are housed at the Edwards AFB Curation Facility and are available for researchers. Some reports are categorized under multiple keywords; therefore, an exact count of reports is difficult to ascertain from the Cultural Resources Bibliography. The studies that have been conducted to date are listed in Table I-1.

1.8.1.2 Archaeological Resource Statistics

Edwards AFB contains 301,114 acres of property; as of 31 July 2005, 137,960 acres have been surveyed and/or inventoried. Of these, 75,000 acres were included in a 25 percent sample survey conducted between 1996 and 2000 under provisions of section 110 of the NHPA of 1966, as amended. Another 138,455 acres have not been surveyed and only will be if necessary for section 106 of the NHPA of 1966, as amended. An acceptable survey/inventory should include walking 15-meter (49-foot) transects. The remaining 24,699 acres are classified as disturbed and are not scheduled to be surveyed/inventoried. Figure I-2 graphically depicts this data.

As of July 2005, 3,524 Archaeological sites have been recorded within Edwards AFB. Of those, 1,781 are prehistoric, 1,604 are recorded as historic, and 139 are historic-military related (Figure I-3).

Table I-1. Completed Cultural Resources Projects

Type of Study	Number Conducted
Literature Search	13
Reconnaissance Report	6
Phase I Survey/Inventory Report	539
Phase II Testing/Evaluation Report	141
Research Design Report	73
Publication	9
Damage Assessments/ Incident/Monitoring Report	12
Oral History	12
Basewide Comprehensive Plan/ Overview/Summary Report	241
Environmental Impact/Assessment	79
Miscellaneous Report (e.g., memorandum for the record, isolated catalogs, manuals)	20

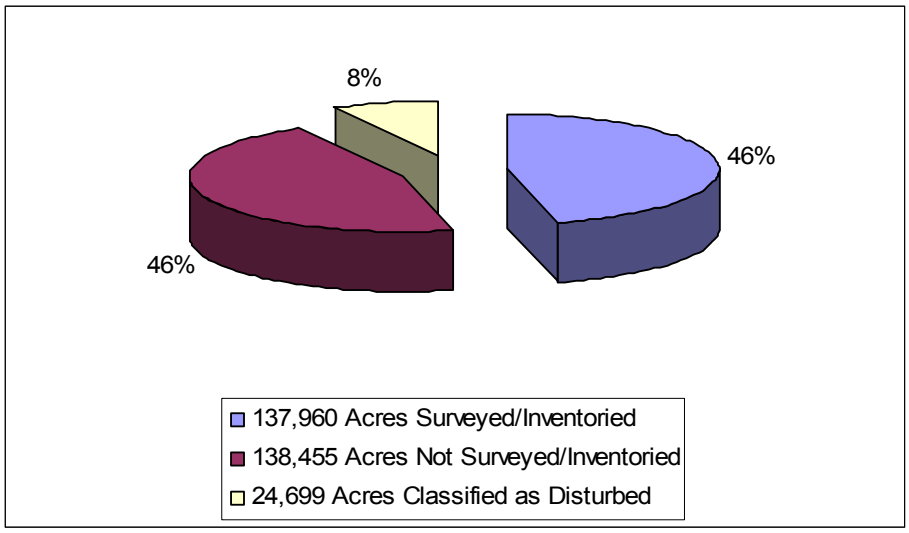

Figure I-2. Edwards Air Force Base Archaeological Inventory

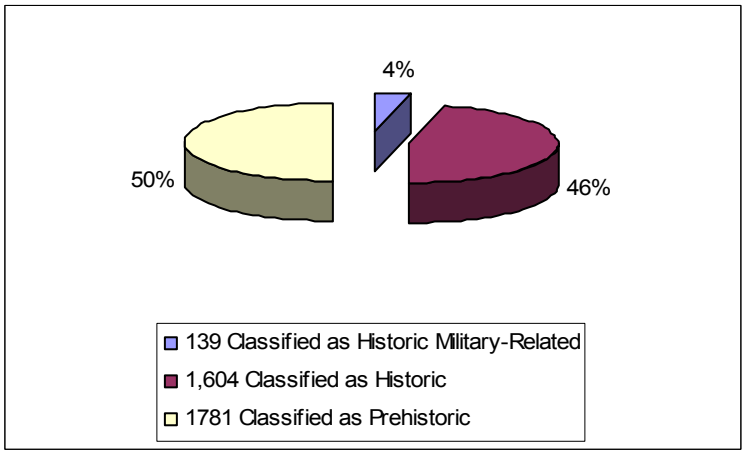

Figure I-3. Edwards Air Force Base Archaeological Sites

The following archaeological sites have been characterized for the National Register of Historic Places (NRHP): 218 sites have been determined NRHP-eligible and 799 sites have been determined ineligible for inclusion on the NRHP. The remaining 2,507 sites require further investigation to evaluate their NRHP significance (Figure I-4).

The Edwards AFB Curation Facility contains 528.9 cubic feet of artifacts and holds 535.1 linear feet of records (e.g., Archaeological reports, field notes, video and audio media). The *FY04 Assessment of the Curation Facility at Edwards AFB, California* documents the condition of the Edwards AFB Curation Facility and details the collection management activities (Crosby 2004). These documents range from letter reports and survey, testing, and mitigation studies, to components of environmental assessments.

1.8.2 Paleontological Resources

Paleontological resources are protected under the Antiquities Act of 1906 as well as the Department of Interiors' Preservation of American Antiquities (43 Code of Federal Regulations [CFR] 3). Edwards AFB contains 775 locales where fossilized nonhuman vertebrate and plant remains are found. The cultural resources program at Edwards AFB is responsible for managing paleontological resources contained within the base. These paleontological specimens have scientific value and are considered significant resources.

Paleontological resources are often identified during the course of Archaeological survey efforts. All the paleontological resources identified within a given survey unit are recorded as a single locality. Any paleontological resources found outside survey units are recorded separately as individual paleontological localities. Recordation is done as described in appendix D, Recording Paleontological Resources section.

1.8.3 American Indian Consultation

1.8.3.1 Summary of Consultation Efforts

Edwards AFB has identified Indian Tribes that may be affiliated with the base area in the May 1997 *Ethnohistoric Overview of the Edwards Air Force Base Region and the Western Mohave Desert* (Earle 1997). Edwards AFB has contacted the tribes identified in this overview. Representatives from several of the affiliated tribes have visited the base and received a tour of different types of Archaeological sites. The BHPO provides the Chemehuevi Indian Tribe; Colorado River Indian Tribes; San Manuel Band of

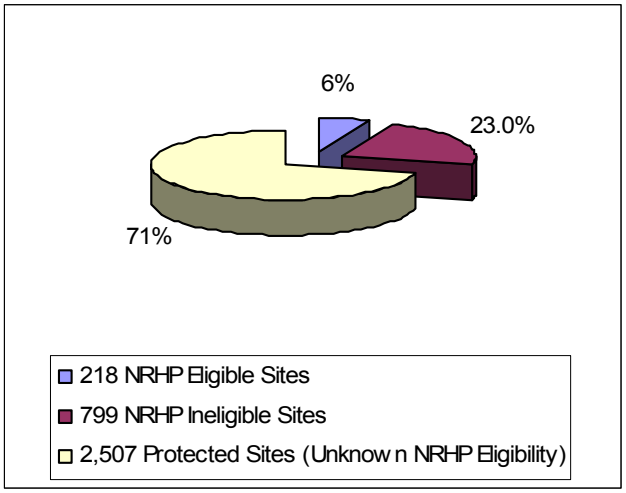

Figure I-4. Archaeological Site Significance

Mission Indians; Morongo Band; individuals associated with the Kawaiisu, Kitenemuk, and Tataviam; and the American Indian Heritage Commission with information about all projects that may affect prehistoric cultural resources on Edwards AFB. The initial contact on the remains is done through a phone call with a follow-up letter if necessary. The project advisement is done by letter with a copy of the research design sent from the on-base cultural resources contractor at the BHPO's direction. The contact list is updated on an annual basis by calling the tribes and verifying tribal contact information.

Pursuant to compliance with the Native American Graves Protection and Repatriation Act, Edwards AFB published a notice of inventory completion in the Federal Register in 1998 (Table I-2). The San Manuel Band of Mission Indians submitted a formal claim on the human remains listed on the inventory. Edwards AFB intends to consult with the San Manuel Band of Mission Indians to determine the place and manner of the repatriation.

The San Manuel Band of Mission Indians considers human remains and burial sites to be important and have requested that Edwards AFB treat them as sacred sites. If human remains are discovered and identified as American Indians, Edwards AFB will strive not to disturb the remains.

Table I-2. Edwards Air Force Base, California, Native American Graves Protection and Repatriation Act (NAGPRA) Inventory Summary

NOT FOR PUBLIC DISSEMINATION	
Site	**Summary Descriptions**
CA-KER-2060/H (EAFB-617) Report: Riessen 1985 File No.: 85-041	1. Inhumation (primarily postcranial remains from one individual). 2. Associated funerary objects from listed inhumation (two Cottonwood arrow points and a bone tool). 3. Cremation remains (probably one individual). National Register Eligibility: Potentially Eligible Accession: A-12
CA-LAN-1158 (EAFB-207) Report: RECON 1988 File No.: 88-E	1. Left distal human fibula fragment and probable human cranial fragments. National Register Eligibility: Eligible Accession: A-27
CA-LAN-1296 (EAFB-1000), (AVAS-1) File No.: 72-A Report: RECON 1988 File No.: 88-E	1. Human cranial fragment collected by Antelope Valley Archaeological Society. Accession: A-1 2. Human bone fragments (cremation) recovered from three excavation units during 1987 excavations; not recognized as human at time of excavation, but identified during NAGPRA inventory. 3. Associated funerary objects (shell beads and fragments, and a Humboldt dart point) from the same excavation unit. National Register Eligibility: Eligible Accession: A-23, A-24
CA-KER-2241 (EAFB-907) Report: Reynolds 1988 File No.: 88-A	1. Isolated fossilized human molar or premolar crown fragment collected during paleontological survey. National Register Eligibility: Not Eligible Accession: P-1, ISOCAT 2286
CA-LAN-796 (EAFB-199), (AVAS-40) Report: Site Record File No.: None	1. Isolated burned human tooth fragment collected during surface survey. National Register Eligibility: Not Evaluated Accession: ISOCAT 4672

1.8.4 Historic Buildings and Structures

Most of the intact, standing structures on Edwards AFB are associated with the military occupation of the area. Therefore, studies of the built environment on base generally concern military buildings and structures. Military facilities at Edwards AFB are generally associated with three broad historic themes: (1) World War II (WWII), (2) the Cold War, and the related (3) Man in Space. Except for a limited number of WWII era properties, buildings and structures on Edwards AFB are less than 50 years old. This fact greatly impacts management strategies for these resource types.

Edwards AFB has over 3,700 buildings and structures; of these, 115 are eligible for listing on the NRHP. Twenty-five buildings and structures have been determined individually eligible under the WWII, Cold War, Man-In-Space, or other themes. Some of these individually NRHP-eligible properties are also contributing elements of a historic district. The remaining 90 eligible properties are contributing elements of the following four historic districts:

a. South Base Sled Track historic district (14 eligible buildings),
b. X-15 Engine Test Complex historic district (10 eligible buildings),
c. Jet Propulsion Laboratory, Edwards Test Station historic district (73 eligible buildings), and
d. Phillips Laboratory historic district (5 eligible buildings).

1.8.4.1 Summary of Completed Projects

Table I-3 provides information on existing *architectural* evaluation reports and projects completed and on file at Edwards AFB.

1.8.4.2 Edwards AFB Historic Buildings and Structures Statistics

Eligibility statistics have been gathered for 1,416 facilities. Eligible properties have undergone evaluations and have been found to satisfy NRHP eligibility criteria. Ineligible properties have been fully evaluated and found not to satisfy NRHP eligibility criteria. Figures I-5 and I-6 show a graphic summary of the buildings and structures eligibility statistics. For a list of all eligible buildings and structures, see appendix E, Buildings Eligible and/or Listed on the NRHP.

Table I-3. Architectural Evaluation Reports and Projects

Type of Study	Number Conducted
Preliminary architectural evaluations (Phase I)	10
Baseline architectural inventories[1] (Phase II)	5
Mitigation documentation[2] (Phase III)	Not yet determined

[1]Inventory includes State of California–The Resources Agency, Department of Parks and Recreation (DPR) Form DPR 523 or Historic American Building Survey/Historic American Engineering Record (HABS/HAER) Level IV equivalent.
[2]Documentation is to HABS/HAER Level II standards.

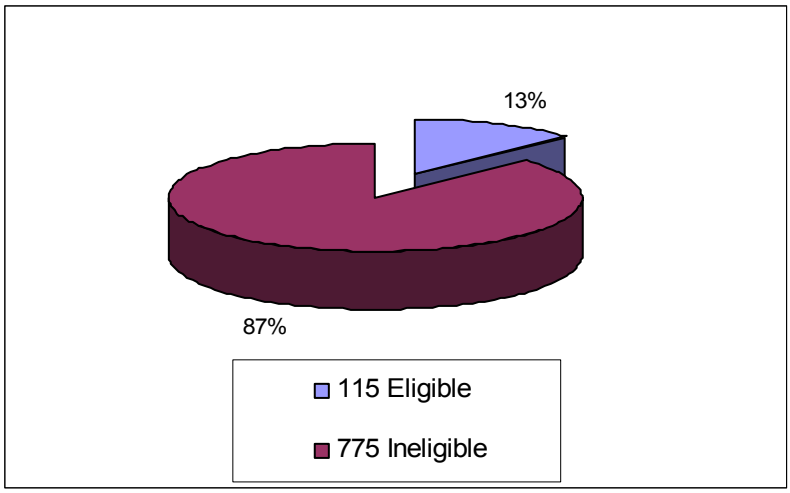

Figure I-5. National Register of Historic Places Eligibility Statistics

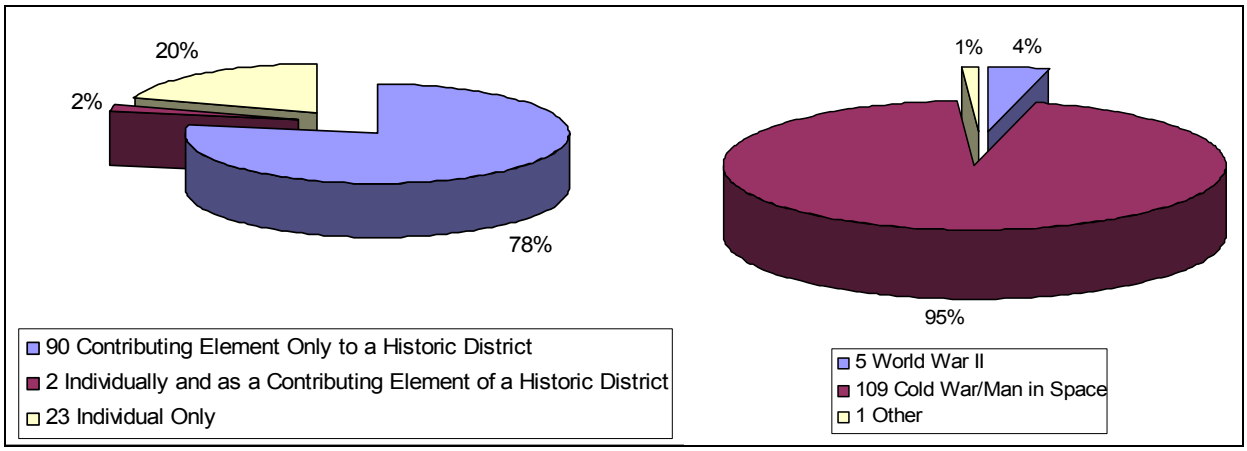

Figure I-6. Breakdown of National Register of Historic Places-Eligible Sites

1.8.4.3 Managing the Inventory

The list of NRHP-eligible buildings and structures is current as of July 2005. The unevaluated buildings and structures listed in Table I-4 are, or will be, 50 years of age or older by the close of Fiscal Year (FY)06. If not already underway, these facilities should be evaluated in FY06.

The unevaluated buildings and structures listed in Table I-5 will be at least 50 years of age when this ICRMP is updated in 2008.

1.8.5 Historic Land Use Areas

Historic land use areas are geographic regions on the base that physically evolve over time because of military missions. This evolution can depict significant military themes. As a resource type, historic land use areas can be either sites or districts depending on the nature and composition of the region.

Table I-4. Unevaluated Buildings 50 Years or Older in 2006

Facility No.	Date of Construction	Facility No.	Date of Construction	Facility No.	Date of Construction
1710	1944	5615	1955	4808	1956
7024	1949	7022	1955	4913	1956
1625	1950	7047	1955	4929	1956
3513	1951	8647	1955	5210	1956
1214	1952	8657	1955	5600	1956
1711	1952	8668	1955	5601	1956
5202	1952	1	1956	7025	1956
5510	1952	602	1956	7026	1956
5618	1952	1617	1956	7027	1956
6449	1953	1626	1956	7028	1956
7023	1953	1715	1956	7029	1956
7044	1953	1823	1956	7030	1956
8652	1953	1850	1956	7031	1956
5550	1954	1851	1956	7032	1956
5613	1954	2340	1956	7033	1956
7039	1954	2422	1956	7034	1956
7042	1954	2423	1956	7035	1956
1200	1955	2503	1956	7036	1956
1201	1955	2660	1956	7037	1956
1408	1955	2670	1956	7040	1956
1720	1955	2680	1956	7046	1956
1895	1955	2700	1956	7048	1956
4807	1955	3511	1956	8522	1956
4926	1955	3520	1956	8655	1956
4930	1955	4803	1956	8672	1956

Table I-5. Unevaluated Buildings 50 Years or Older in 2008

Facility No.	Date of Construction	Facility No.	Date of Construction	Facility No.	Date of Construction
1905	1957	1301	1957	1862	1958
1910	1957	8375	1957	1863	1958
8908	1957	8546	1957	1902	1958
8906	1957	8541	1957	8051	1958
8907	1957	1405	1957	8052	1958
1405	1957	1302	1957	1901	1958
6694	1957	1831	1957	5207	1958
4975	1957	6447	1957	1438	1958
3505	1957	1829	1957	1899	1958
8529	1957	8654	1957	1900	1958
8531	1957	1005	1957	3806	1958
8532	1957	1725	1957		
4970	1957	4941	1957		

The Air Force includes in its directive on Planning Level Surveys (referred to as "SOK" in this document) the need for an assessment of not only buildings and structures, but also objects, districts, and landscapes (also known as land use areas). Department of Defense Instruction 4715.3, paragraph 6.1.8, describes the planning level survey this way:

> A planning level survey…is an essential initial step in managing an installation's natural and cultural resources. …The cultural resources inventory of historic buildings should include, at a minimum, the identification and preliminary assessment of all National Register-eligible historic buildings and structures. Objects, districts, and landscapes covered by section 470, et seq. of 16 U.S.C., (reference [h]) should also be included.

Edwards AFB has a planning and zoning committee chaired by the Installation Commander. The function of the committee is to review buildings, structures, and land use to assure aesthetic consistency and mission compatibility throughout the base. With the exception of NASA and the Air Force Research Laboratory (AFRL), and other lease tenants, land use has been, and still is, in keeping with the overall mission of Edwards AFB. The Edwards built environment and architectural style is driven primarily by function. The same holds true for Edwards land use areas, which evolve to meet changing research, development, testing, and evaluation (RDT&E) missions.

Edwards AFB historic land use areas have been addressed in inventories that focus on military period structures, not as an inventory item but within various research contexts. An example is found in *Inventory and Evaluation of Selected Military Period Structures at Main Base, Edwards Air Force Base, California*, Volume I, "Chapter 4, Research Contexts, Military Architecture: Institutional Landscape of the U.S. Air Force" (Komporlides et. al 1997). The following is excerpted from that chapter:

> Built environments manifest on-going human processes concerned with the creation of specific place types designed to serve specialized functions, and whose presence and persistence in the landscape convey important messages regarding perceived cultural values. Air Force landscapes, along with all other managed institutional places, comprise a substantial portion of America's built environment and have molded Air Force bases as a specific place type (Kreger 1988).

1.8.6 Monuments and Memorials

In 2003, an inventory and evaluation of monuments and memorials as potential eligible cultural resources was conducted on Edwards AFB. Seventeen monuments/memorials were considered for NRHP eligibility. Three of these monuments/memorials, the Judson Studios Memorial Chapel Windows, the P-59 Aircraft Display, and the HL-10 Lifting Body, were recommended as eligible for the NRHP (Hathaway and Hathaway 2003).

1.8.7 Documents

Edwards AFB is fortunate to have archival resources on site that document the built environment and developmental history of the base. The Edwards AFB Curation Facility contains charts, drawings, electronic records, forms, illustrations, maps, photographs, sketches, specifications, tables, and textual data that are important documents that help to identify, evaluate, and manage historic properties. These documents include but are not limited to field notes; photographs; historic documents; maps; site records; monitoring logs; survey summary reports; Phase I, II and III evaluations; HABS/HAER records; eligibility documentation; ethnographic interview tapes; and transcripts. They can serve to:

a. Prescribe treatment methods for historic buildings and structures;

b. Document existing conditions useful in the planning and execution of repair, reconstruction, and rehabilitation projects;

c. Convey important historical information about properties scheduled for demolition; and

d. Depict former sites and, therefore, can be used to locate potential and/or existing environmental concerns in areas considered for development or redevelopment.

The utility of such documents in day-to-day base activities is evident, but one must not ignore the fact that these documents—especially those conveying information on historically or culturally significant resources—may themselves be cultural resources. It also should be noted that documentation being created today, like older records, contains narrative text and data worthy of consideration for curation in the near future. Measures to preserve these significant resources are proposed in this ICRMP.

Documents important to cultural resource compliance are maintained by the BHPO, History Office, Real Estate Office, and Civil Engineer (CE) staff. Many cultural resource-related records are already maintained by the BHPO in the Edwards AFB Curation Facility. The base historian has stewardship of a centralized collection of historic photographs and other important historical documents that focus on Edwards AFB mission activities. Many facility-related primary source records—such as early real property cards (including those for offsite properties), DD Form 1354 for the transfer and acceptance of military real property, and property disposal files—may exist in the Real Estate Office. base landscape plans and site maps, as well as building and structure drawings, can be found in the CE offices.

Regardless of where these documents originate, those pertaining to NRHP-eligible and potentially eligible properties should be preserved in the Edwards AFB Curation Facility for future cultural resource compliance activities. If no longer in use by their originating office, the original records should be transferred to the Curation Facility. Those that continue to be used by their respective offices should be duplicated and the duplicates should be kept on file at the Curation Facility. Types of documents currently archived at the Curation Facility include original as-built drawings, homestead and mining claims, written memorabilia, photographs, diaries and personal correspondence.

1.8.7.1 Summary of Completed Projects

No comprehensive inventory of historic documents exists at Edwards AFB. However, individual databases exist for specific document types

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PART II: CULTURAL RESOURCES MANAGEMENT

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2.0 CULTURAL RESOURCES MANAGEMENT

2.1 Introduction

This ICRMP outlines the short- and long-term goals of the cultural resources management program and documents the processes by which the manager can meet these goals. This plan provides the goals and reporting requirements for monitoring the success of the program.

Edwards Air Force Base is tasked by *The Commander's Guide to Environmental Quality* (http://www.afcee.brooks.af.mil/ec/cmdrguid/GUIDE5.HTM) to manage all cultural resources "to assure protection and enhancement while permitting the successful accomplishment of the military mission." As good land stewards, Edwards AFB assumes the responsibility for the protection and conservation of these resources. Careful management of these resources will dictate how the BHPO can take into account the interests of the base and outside parties, and still support the military mission. This ICRMP will help the BHPO devise ways to establish and perpetuate that responsibility and to make it simple, cost effective, and relevant.

2.1.1 Management Goals of the ICRMP

The management goals of this plan are:

a. To comply with Air Force standards, which are derived from federal legislation pertaining to cultural resources management;

b. To maintain a cultural resources management program that meets the needs of the Air Force mission;

c. To identify improvements that can be made in the management processes. The BHPO plans to meet existing standards, implement program improvements, and respond to new initiatives and emergencies as they arise. In developing this plan, the BHPO can identify additional work that may be needed to more effectively meet existing standards.

d. To standardize responses to some emergencies, such as dealing with the inadvertent discovery of an Archaeological site or human remains, processes have already been established to ensure compliance with federal legislation. However, the BHPO cannot always foresee new Air Force initiatives that may ultimately impact cultural resources management and cannot yet be reflected in the ICRMP. The only recourse for the BHPO is to assess the success of the plan on an annual basis and to redirect efforts, if necessary, in the annual work plan. When the major 5-year review of the ICRMP is due, the overall plan can be reevaluated; and

e. To assess the success of the program.

2.2 Cultural Resources Responsibilities at Edwards AFB

The Edwards AFB BHPO, as well as other activity offices, will use the Edwards AFB ICRMP. This section lists and describes the primary cultural resources management responsibilities of the Edwards AFB BHPO office (appendix F).

2.2.1 Edwards AFB BHPO Responsibilities

a. Develop, manage, and implement the ICRMP

b. Review all NRHP determinations of eligibility for base administered properties (HQ USAF/ILE Memorandum, 13 December 2001)

c. Prepare Statements of Work (SOW) and manage contracts

d. Coordinate with other Edwards AFB offices to manage cultural resources

e. Advise and educate other Edwards AFB components, contractors, and tenants on cultural resource requirements

f. Monitor resource condition and management compliance, including management of a site protection program

g. Carry out the NHPA process for base-funded projects

h. Create, program, and manage contracts for Archaeological and other mitigation work

i. Develop procedures for responding to unexpected needs

j. Encourage and support public involvement/interpretation

k. Update building categorization and treatment protocols as necessary

l. Complete cultural resource management reporting requirements and data calls to HQ AFMC

m. Inform stakeholders of actions/undertakings that might affect them

2.2.1.1 Site Protection

The effort to protect the cultural resources sites at Edwards Air Force Base consists of six main components: site monitoring, site record updating, site investigation, maintaining a looted-sites database, education and outreach, and law enforcement. Site investigation has two subcomponents: site damage assessment and protective measures implementation. Site monitoring consists of visits to selected sites and site record update consists of updating previously looted sites to reflect an accurate assessment of the site. Site investigation consists of assessment of a site or area that has sustained damage or possible damage to cultural resources. Protective measures are taken by assessing previously looted or damaged sites that may benefit from the placement of antilooting signs. The looted-sites database, or ARPA database, is designed to maintain information on all looted and/or damaged sites on Edwards AFB. Education and outreach is maintained through cultural briefings, public presentations, preparation of educational materials, and preparation of newspaper articles. Site Protection Support personnel, work closely with base Law Enforcement, who facilitates this effort by providing protection to cultural resources sites at Edwards AFB.

Edwards AFB now operates a Range Rider program, which puts cultural resources specialists into the field at times of potential risk of vandalism to archaeological sites. First introduced in 2002, the program has grown to two full-time trained archaeologists. Working closely with base Security Forces, the Range Riders have encountered, documented, and deterred illicit site looting, shooting, vandalism and off-road activities, all of which take a severe toll on sites each year. There are currently 3,041 Archaeological sites on Edwards AFB (appendix G).

2.3 Historic Context and Themes

The term “historic context” has both a common and formal, regulatory meaning. In the common definition, historic context is simply a matter of perspective. All valid historical conclusions result from putting facts into context, from standing back to see the “big picture.” The formal meaning of historic context comes from an effort by the Secretary of Interior to ensure that properties are inventoried and

evaluated within the context of larger historic patterns. The formal definition is simply an attempt to codify longstanding practices with the historic and architectural historic professions.

In the *Secretary of the Interior's Standards for Historic Preservation Planning* (48 Federal Register [FR] 44716), the formal use of a historic context is described as follows:

> The historic context is the cornerstone of the planning process. The goal of preservation planning is to identify, evaluate, register and treat the full range of properties representing each historic context, rather than only one or two types of properties. The use of historic contexts in organizing major preservation activities ensures that those activities result in the preservation of the wide variety of properties that represent our history, rather than one biased sample of properties.

A description of Edwards AFB in a prehistoric and historic context is found in appendix H.

2.3.1 National Context: Cold War Guidance

The Cold War Task Area report, *Coming in from the Cold: Military Heritage in the Cold War*, includes (in its appendix IV) the "Interim Guidance, Treatment of Cold War Historic Properties for U.S. Air Force Installations, June 1993" as a sample guidance statement for the preservation of Cold War properties (Center for Air Force History [CAFH] 1994). The Air Force's guidance statement lists five Air Force Cold War property types:

a. Operational and support installations
b. Combat weapons systems and combat support systems
c. Training facilities
d. Material development facilities
e. Intelligence facilities

Because the Cold War began barely 50 years ago, the "Interim Guidance, Treatment of Cold War Historic Properties for U.S. Air Force Installations" states that buildings and structures should have a direct association with operational missions and missions of national importance to be considered eligible for the NRHP under the Cold War Theme. The guidance document lists types of buildings and structures that usually lack this type of association: family housing, base officers' quarters, base exchanges, administrative buildings, garages, motor pools, maintenance shops, sewage treatment plants, and most hangars. However, the document notes that hangars in particular must be examined by knowledgeable people to verify the presence or absence of exceptional significance ("Interim Guidance," paragraph 12.2).

The AFMC's two-volume Cold War context includes a volume of general AFMC history and a volume with base-specific chapters. This document will prove useful in future Edwards' evaluations.

2.3.2 State Context: California Historic Military Buildings and Structures Inventory

A four-volume study was developed for the Sacramento District Army Corps of Engineers in March 2000 (*California Historic Military Buildings and Structures Inventory, Volumes I-IV, 2000* [JRP Historical Consulting Services 2000]) to analyze the way in which historic buildings and structures have been evaluated by the various military services in California. The study provides a methodological and contextual framework to guide future work. This document has two essential purposes: (1) to report on

the status of historic building and structure inventories that have been conducted on California military bases, and (2) to move toward a statewide and interservice approach to completing the work that remains to be done.

The need for a more consistent approach to evaluating military historic buildings and structures was addressed within the CMECC already defined. The CMECC is a body convened by the Governor of California for the interservice and interagency resolution of environmental issues surrounding base closure. The CRPAT of CMECC consists of cultural resources management planners from each DOD armed service branch and from the Advisory Council on Historic Preservation (ACHP), SHPO, National Park Service (NPS), and other federal agencies. The CRPAT's purpose is to help coordinate historic preservation regulatory compliance activities across the military service branches.

The CRPAT resolved that the service branches should take a more coordinated approach to historic property evaluation and that the best way of assuring consistency would be to develop a thematic and context-based approach to future work.

The purpose of the historic military buildings and structures study was three-fold:

a. Phase I: to conduct a survey of historic buildings and structures completed to date at military bases in California.
b. Phase II: to prepare a thematic history of the military in California, to provide a context within which subsequent historic buildings and structural evaluations can take place. This history was to be regional and interservice in scope and encompass historic themes from the Cold War Era.
c. Phase III: to bring the results of Phases I and II together in a synthesis that considers the historic properties previously registered and the historical, thematic context of their registration. The synthesis identifies key property types associated with each theme and assesses their registration requirements (JRP Consulting Services 2000).

Themes and contexts to be used by all branches of the armed services in evaluating the significance of historic military resources in California are found in Volume II. The historic themes in this context are necessarily broad in nature, pointing to the most decisive developments in military history, from which more discrete themes and property types may be developed and applied to individual bases and properties.

This context is divided into seven periods or eras:

a. Colonial Era (1769-1846)
b. Frontier Era (1846-1865)
c. Traditional Era (1866-1902)
d. Modernization Era (1903-1918)
e. Interwar Era (1919-1938)
f. World War II Era (1936-1945)
g. Cold War Era (1946-1989)

The following is a sample of statewide military themes included in the Statewide Inventory that may apply to Edwards AFB. (For a full list, please refer to the "Statewide Inventory," *California Historic Military Buildings and Structures Inventory, Volume III.*) (JRP Consulting Services 2000):

a. Pre-World War II Preparedness
b. World War II Aviation Training
c. WWII Testing for Emerging Weapons
d. Cold War Weapons Research and Development
e. Man in Space Research and Development
f. Military Architecture of the Cold War

2.3.3 Base Context: Edwards AFB Themes

Due to unique missions associated with Edwards AFB, it is essential to delineate themes relevant to Edwards-specific mission activities. It must be noted that some of these Edwards-specific themes may also be included in the previous national and state themes. However, Edwards-specific themes, because they came to fruition at Edwards, may make them more significant in Edwards' eligibility determination. In other words, Edwards themes may in fact transcend the National and state themes due to their critical significance to the U.S. military and space exploration. The Edwards Cultural Resource Program, through its many plans and inventories, has established a number of themes that pertain directly to the base. The following is a preliminary list of these themes and subthemes.

a. World War II
b. Preparation for War/East Camp and Land Acquisition
c. Bomber Pilot Training/Aberdeen Bombing Mission
d. Fighter Pilot Training
e. New Weapon and Delivery Systems Testing
f. Cold War
g. Testing/Evaluation of Aircraft
h. Sled Track Testing
i. Man in Space

Post-Cold War themes specific to Edwards are still being determined. A necessary future requirement is to develop a standard operating procedure for identifying potentially significant post-Cold War themes specific to Edwards. Due to the Edwards RDT&E mission focus, Edwards-specific themes will routinely involve next generation test and evaluation of aircraft, weapon systems and rocket propulsion.

2.4 Cultural Resource Management Strategies

2.4.1 Establishing Standard Operating Procedures

The "Cultural Resource Fact Sheet: Recommended Guidelines for Standard Operating Procedures in Integrated Cultural Resource Management Plans" (Air Force Center for Environmental Excellence

[AFCEE] 2001) (appendix I) provides assistance for completing or updating the important Standard Operating Procedure (SOP) section required in all base ICRMPs as set forth in AFI 32-7065. The SOP component to an Air Force ICRMP outlines and describes standard implementation processes or procedures associated with managing cultural resources at a base. The SOPs should sufficiently define the steps necessary to carry out required actions during most routine situations. This guidance suggests that SOPs do not focus on the regulations, but address specific situations, are triggered by specific events, and are carried out by specific responsible organizations and their points of contact. Further, SOPs describe internal base procedures (per AFI 32-7065) and identify the specific responsible individuals or office symbol, (i.e., the person[s] or specific organization responsible for carrying out each part of the procedure). The guidance stresses that SOPs must identify the tasks and duties of all people involved with the procedure, not only the base Cultural Resources Manager and staff. The full text version of the SOP guidance can be found in appendix I.

2.4.2 Resource-Specific Management Strategies

2.4.2.1 Archaeology

Edwards AFB completed a 25-percent sample survey of the entire base to help satisfy section 110 inventory requirements and facilitate future section 106 actions. The base has been subdivided into five separate management regions to facilitate prioritization. A focused overview and management plan is being prepared for each management region (appendix J). Sample survey results, in combination with the many other survey projects accomplished over the years, allow for accurate characterization of site occurrence throughout the base. The types and density of sites that may occur in any unsurveyed area can be reliably predicted. As would be expected, the dry lakebed playas lack evidence of significant cultural resources. Dry upland areas, where the creosote bush scrub occurs, have no sites or very low site density. Lowland areas and pan and dune environments where water and resource-rich regimens once existed have moderate to high site densities. Therefore, sample survey results

a. Eliminate the need for additional survey coverage in some unsurveyed areas;
b. Eliminate the need to perform 100 percent close-order transect surveys (at 15- to 20-meter [48 to 65 feet] intervals) in some unsurveyed areas, but less rigorous inspection may be warranted; and
c. Justify and reinforce the need to perform 100 percent close-order survey in some unsurveyed areas.

2.4.2.1.1 Survey Sufficiency

With a 25-percent sample survey completed, and over 15 percent of lands outside sample units previously inspected, it is unlikely that any undiscovered site types or sensitive areas remain. Survey coverage for future projects needing section 106 review will be customized to accommodate the circumstances. Survey methods and approach will vary, depending on a predictive model that accounts for known site occurrence. The following section describes the criteria for initiating survey coverage.

a. No further survey will be performed for the surfaces of the dry lakebed playas of Edwards AFB (nonsensitive areas). This includes Rogers, Rosamond, and Buckhorn Lakes as well as any barren claypan over 5 acres in area. Lakebed areas in excess of 5 acres tend to lack cultural resources on the surface.

b. No further survey will be performed for project areas that are surrounded by sample survey units containing no sites, and there are no sites recorded within 1/4 mile of the project area (low sensitivity). Based on professional judgment, the BHPO may perform a field check for such

areas. The purpose of the field check is to ensure that landforms and environment of the project area are consistent with that of the surrounding null sample units.

c. A judgmental survey will be performed for proposed project areas that are within 1/4 mile of at least one recorded site. A judgmental survey will also be performed if the proposed project lies within ½ mile of at least one sample unit that contains cultural sites that collectively encompass 4 acres or more of the 160-acre sample unit. Total site area within sample units is calculated from Geographic Information System (GIS) map polygons and reflects a site density of .025 site per acre. Based on the review of density data, the 4-acre or more figure apparently reflects true land use or occupation. When sites do occur, and collectively encompass less than 4 acres, the area number generally is significantly less than 4 acres. Site density at this low level reflects incidental use or deposition without reflecting significant land use or occupation. Such occurrences are unlikely to be determined eligible to the National Register or indicate moderate or high sensitivity of the region.

   Judgmental survey methods will be tailored to the specific situation and nature of anticipated sensitivity. Methods may range between the traditional close-order transect survey at 15 meter (48 feet) intervals and the wide-interval (50 meter/164 feet) zigzag coverage.

d. A standard 100-percent close-interval transect survey will be performed where sensitivity is notable. This includes situations where project areas are within 1/4 mile of two or more sample units containing 4 acres or more of cultural site per 160 acres and there are one or more recorded sites within 1/4 mile of the project area (high sensitivity).

e. These approaches are not rote formulas. The BHPO may initiate a 100-percent transect survey in any circumstance depending upon professional judgment. This would be most likely to occur if there was a reason to believe that the environmental characteristics of the project area were somehow different than nearby surrounding terrain.

2.4.2.1.2 Archaeological Site Evaluation Program Strategy

Knowing which sites are eligible for the National Register and which are not is the most critical information needed by the BHPO. The base has a long-term evaluation program that has accomplished a considerable amount of site evaluation. The base has focused on the evaluation of sites involved in, or likely to be involved in, projects; sites at risk due to natural or man-made threats; sites that have a high potential for eligibility (known as key sites), and sites associated with particular themes. However, only a fraction of the total site inventory has been formally evaluated. Since unevaluated sites are considered eligible, and must be treated as such, the importance of site evaluation for land use planning is clear.

The base proposes to accomplish systematic evaluation of its site inventory. Site evaluation will occur in a phased fashion over a number of years as funding permits. Since there are thousands of sites, it is not practical nor necessarily desirable to formally evaluate each site in traditional ways. A strategy will be used that involves consideration of a number of variables, a prioritization process, and selection of a 25-percent sample of the inventory, stratified by site type. The sample will be formally evaluated using traditional methods. Prehistoric and historic period sites will be treated somewhat differently due to the fact that a written record exists for the latter, but the approach to site sampling will be similar.

The base expects the possibility of three outcomes of the evaluation program.

a. *Ineligible site types.* There may be site types where none of the member sites have sufficient variation to qualify as scientifically valuable and, therefore, achieve eligibility. In such cases, the base expects to negotiate a Memorandum of Agreement (MOA) with the SHPO agreeing on the methods for identifying a member of that particular site type and that, henceforth, such sites shall

be considered ineligible. The California Resource Identification and Data Acquisition Program (CARIDAP) is a precedent for this approach.

b. *Possibly eligible types.* There may be site types where evaluation shows that only some members of the type will qualify as scientifically valuable. In these cases, a threshold must be established regarding the nature and degree of variation required to establish scientific value and potential eligibility. Standardized methods will be established to detect, demonstrate, and document membership in the type and degree of variation present. An MOA regarding future treatment shall be negotiated with the SHPO when mutually agreeable measures for the type have been identified.

c. *Definitely eligible types.* It is expected that for some types, all members will meet eligibility criteria. This is most likely when some criteria other than criterion D (properties that have yielded or may be likely to yield, information important in prehistory or history as outlined in *How to Apply the National Register Criteria for Evaluation, National Register Bulletin [NRB]* 15) for eligibility determination can be shown applicable, or that American Indians value the site.

A number of general assumptions regarding Archaeological sites have been made.

a. If Archaeological sites are eligible, it will likely be under criterion D due to its scientific value.

b. An Archaeological site may have no scientific value yet have value under some other criteria, or may be valued by an American Indian Tribe.

c. Sites are not created equal, but each type of site, as defined at Edwards AFB, is worthy of some degree of minimal consideration, to ensure it is a legitimate member of a type.

d. The scientific value of any site is directly related to the nature and extent of the variation it displays, as considered in a number of dimensions. The greater the variation, the greater the possibility that a site will have scientific value.

e. Scientific value is also related to context in terms of time, space, and physical integrity.

f. For prehistoric period sites, the natural environment is a prime influencing factor; for historic period sites economic and political factors are particularly powerful in determining site structure and function.

g. It is possible to rank sites in order to compare differences and to define and identify thresholds of eligibility.

The base has developed a method for categorizing and comparing sites based on variation. The method is called priority indexing. The categories of site types are initially prioritized based on their risk from mission-related activities and other authorized activities, including recreation. Next, the site types are prioritized based on other risks such as deterioration and looting. Then they are prioritized based on their relative value. Characteristics that make up an individual site's relative value include site complexity, the number of artifact functions represented in each site's artifact assemblage, the number of artifacts, the number of features, the presence of temporally diagnostic artifacts, overall site size, and the presence of possible human burials. Site types that are composed of sites with high relative values have a higher priority than site types composed of low value sites. Priority indexing plays a part in the sampling plan.

2.4.2.1.2.1 Sampling Strategy For Prehistoric Sites

The 25-percent sample of prehistoric sites will be selected in a purposeful way to examine and evaluate all sites that have the greatest potential for eligibility. To better understand reasons for variation in distribution of sites by region and variations in surface morphology, which is a primary goal of

evaluation, the proposed sample of prehistoric sites will be stratified by management region, management area, and site type. If sites are tested in only one or two areas of the base, or if only one or two types of sites are tested, they will provide an incomplete understanding of what the prehistoric residents of the region were doing. The following steps will be followed in constructing the stratified site prioritization.

a. Sample of sites will be stratified for management region, management area, and site types.

b. A sample of 25 percent of the total number of sites of each site type found in sample survey units within each management area will be calculated and fractional numbers will be rounded up or down to the nearest whole number. The number of sites found inside sample survey units was chosen as the basis for the sample because the number and variety of sites found inside the sample survey units are more likely to accurately represent the occurrence and densities of sites across the base than judgmental and project-driven survey results.

c. The actual sites to be tested will be judgmentally identified based on a combination of their risk of future effects and potential Archaeological value. Sites will not be randomly chosen because sampling each type of site represented in a management area will ensure that a range of large and small sites are tested. Also, the most potentially informative sites of each site type need to be tested. This means selection of the sites with large artifact assemblages and/or complex deposits.

d. At risk sites will receive priority over sites that are only undergoing natural deterioration so that sites at risk from project activities will already be evaluated before projects need to be implemented and so that it can be determined if data recovery efforts should occur on sites that have been affected by project activities.

2.4.2.1.2.2 Phase II Sampling Strategy for Historic Period Sites

The proposed sample of historic period sites will follow the evaluation strategy employed for prehistoric sites except that the sample of historic period sites will not be stratified by management region and management area. This is because historical documents provide an understanding of historic period settlement patterns, so theme is a more important distinguishing characteristic of these sites. For example, mining-related sites will be sampled based on the mining district or type of mining, such as oil drilling or mud mining, with which they are associated. The only exception is isolated historic period refuse deposits. These are refuse deposits not associated with homesites or other land use activities. The proposed sample of isolated historic period refuse deposits will be stratified by management region, management area, and site type to allow researchers to determine if there are regional variations in the constituents and purpose of these deposits.

2.4.2.1.2.3 Management Region Reports

The results of the sample survey was documented in five reports, one for each of the five Management Regions. See appendix J for a summary of these reports. Each of the Management Region reports identified survey units where an infill survey is recommended in conjunction with any future section 106 consultations, and also, identified and prioritized those prehistoric and historic sites that are recommended for Phase II evaluation. The data generated by the sample survey was used to refine the Edwards AFB GIS databases and maps depicting cultural sensitivity. This data will be a useful planning tool for general use.

The results of evaluation will also be summarized in a series of five reports. Since funding and the ability to evaluate entire Management Region Samples at one time is limited, reports will be prepared to relate and summarize what may be multiple evaluation efforts.

2.4.2.1.3 Archaeology SOPs

Specific situations and events pertaining to the identification, evaluation, and management of Archaeological resources require SOPs. Archaeological categories that warrant SOPs have been previously identified (Ronning et al. 2000). These SOPs have been tested and refined and work well for the installation (appendix D). The Archaeological specific SOPs include:

a. Phase I Archaeological Inventory
   (1) Background Research
   (2) Fieldwork Practices
   (3) Site and Isolate Records
b. Phase I Archaeological Technical Report
c. Phase II Evaluations
   (1) Research Design
   (2) Archival Research
   (3) Fieldwork Practices
d. Mapping
   (1) Surface Collection
   (2) Test Excavation
   (3) Collecting Special Samples from Prehistoric Sites
   (4) Laboratory Analysis Practices for Prehistoric Materials
   (5) Laboratory Analysis Practices for Historic Materials
e. Phase II Technical Report
   (1) Report Production
f. Preparation of Nomination Packages
g. Phase III Data Recovery
h. Global Positioning System (GPS) Guidelines
i. Curation
j. Databases
k. Maps
l. Monitoring
m. Inadvertent Discovery
n. Preservation/Site Stabilization
o. Oral History
p. Ethnography
q. Professional Qualifications
r. Standardized Treatment of Cultural Resources by Site Type
s. Mining SOP

2.4.2.2 Historic Buildings and Structures

All of the following information about Edwards AFB historic buildings and structures must be considered within a crucial context that may not be apparent even to many informed observers. The context is this: the Edwards AFB mission has for decades been a pivotal component of U.S. national security, and the nature of its associated RDT&E program, by necessity, dictates a highly atypical life cycle for its most historically significant and technically advanced facilities. This may be referred to as the Advanced National Security RDT&E Context. The atypical life cycle is driven by the continual need to modify or replace RDT&E facilities in order to accommodate new, unforeseeable, experimental requirements. In general, the result at Edwards is an inventory of unique and costly facilities that have a much shorter life cycle than typically would be expected considering the associated investment and national significance.

The nature of the Edwards mission puts the base into a small but highly significant group of U.S. military installations that pose unique historic preservation challenges. This is not to say that these installations are necessarily "more significant" than all the others, but rather that they may require alternative preservation methodologies in order to fulfill the intent and spirit of the NHPA. Therefore, it is important to keep this context in mind when considering the Edwards' architecture inventory—the preservation issues are more complex because the most significant and advanced structures may be among the most ephemeral. In regard to the following outlined process for handling eligibility, those buildings that are 50 years and older are considered using normal NHPA guidelines.

2.4.2.2.1 Applicability

A major portion of the strategies and procedures discussed in this section represent an alternative approach to NHPA compliance. The alternative procedures are largely tailored to a specific and historically unique category of buildings and structures: advanced RDT&E facilities that have a crucial national security mission and are less than 50 years old. Edwards AFB infrastructure is made up of a comparatively high number of advanced RDT&E facilities that may be of national significance. Such facilities are very often conceived and constructed as 'semipermanent' structures, regardless of their designation in the installation real property database, because their technical life cycle is understood by the project directors to be of limited duration. Thus, Edwards will use a hybrid approach to the treatment of historic properties, comprising both standard and alternative NHPA compliance procedures.

2.4.2.2.2 Management Implications of RDT&E Facilities on Edwards AFB

As discussed previously, Edwards AFB is among a distinct handful of advanced national security RDT&E complexes that pose serious challenges to traditional NHPA-specified historic preservation methods. The preservation issues are demonstrably more complex because the most significant and advanced structures may be among the most ephemeral By nature, advanced RDT&E infrastructure typically must be rejuvenated or replaced on a much shorter life cycle than other comparable technical facilities. The historic preservation complexities can be compounded when an undertaking, as defined by NHPA, is planned in order to repurpose a facility that is already eligible for listing in the NRHP. Consider the example of an NRHP-eligible structure that must be substantially altered to support investigation of a revolutionary new aerospace technology. Alteration of the eligible building, even for the highest national security purposes, may compromise its integrity and thereby make it ineligible for the NRHP. Such a situation presents major challenges—if not outright paradoxes—in terms of preserving key artifacts of U.S. military history.

In short, Edwards AFB's advanced national security RDT&E context makes it advisable to follow alternative evaluation and preservation approaches that fulfill the intent and spirit of NHPA without unduly encumbering the installation's ability to use and evolve its RDT&E infrastructure. Such

alternative methods would not impact NHPA requirements in any way, but are intended to provide additional tools for promoting timely NHPA compliance where the advanced national security RDT&E context applies.

2.4.2.2.3 Addressing NHPA Sections 106 and 110

Section 106 – 16 U.S. Code [U.S.C.]. 470f — Advisory Council on Historic Preservation, comment on Federal Undertakings. The chief management implication for section 106 compliance pertains to providing the ACHP a reasonable opportunity to comment on an undertaking. In lieu of traditional notification and review cycles, section 106 compliance is assured in several ways through the documentation procedures discussed later under "Standard Operating Procedures for Historic Buildings and Structures." First, the Edwards AFB ICRMP accounts for the most extreme future undertaking (e.g., demolition) that could affect any NRHP-eligible property, which is a typical issue that would be addressed during the traditional section 106 comment process. Second, the Edwards ICRMP specifies a procedure to determine the most appropriate level of HABS/HAER documentation for all eligible properties, then produces the documentation without waiting to be prompted by an undertaking. This approach will often result in more and higher-level documentation efforts than may have been negotiated later with the SHPO during a traditional section 106 comment process (perhaps more accurate documentation as well, since source material would be more readily available). Third, the Edwards ICRMP requires the original HABS/HAER documentation to be provided 45 days in advance of an undertaking to the appropriate repository while simultaneously providing an informational copy to the SHPO. In essence, Edwards AFB takes on the obligation to precomply with section 106 in return for certain procedural flexibility that is necessary to avoid delays that might negatively affect its mission.

Section 110 – 16 U.S.C. 470h-2(a) — Federal agencies' responsibility to preserve and use historic properties.

(1) The Edwards AFB ICRMP satisfies the applicable portions of this subparagraph by assuming responsibility for preservation activities, even for facilities that have not reached the 50-year threshold specified in the NHPA. Facilities less than 50 years old that potentially have exceptional historic significance are systematically identified, evaluated for NRHP eligibility, and documented (if eligible) according to the appropriate HABS/HAER standards. The ICRMP has no negative impact on Edwards AFB's ability to use historic properties "to the maximum extent feasible." Due to the installation's national security RDT&E mission, feasibility for most facilities will be determined by mission-critical requirements. Therefore, Edwards AFB's conservation efforts will be conducted to avoid conflicts with the installation's mission.

In cases where mission requirements allow for an NRHP-eligible facility to retain its original use, or to be reused in a new, compatible way, Edwards AFB shall make every effort to preserve the architectural integrity of the property in accordance with (IAW) NHPA mandates. Most of the buildings and structures in Edwards AFB historic districts are physical manifestations of the functions they house. These districts are essentially engineered landscapes whose form is dictated entirely by function. Therefore, adherence to general architectural and design concerns that prevail in conventional historic districts is irrelevant.

(2) The Edwards AFB ICRMP satisfies the preservation, identification, evaluation, and nomination requirements set by this subparagraph of the NHPA.

Identification—The Edwards ICRMP, in effect, makes the identification provisions of section 110 moot, given the installation's commitment to evaluate all properties regardless of age.

Evaluation—This portion of the requirements is met through alternative procedures described in detail later under "Evaluation."

Nomination—This portion of section 110 has no effect on the way historic properties are managed at Edwards AFB, given the internal Air Force cultural resource program established by AFI 32-7065. Furthermore, although it requires federal agencies to nominate eligible properties, it establishes no compliance deadline for the requirement. Therefore, the formal nomination of historic properties for listing in the NRHP is not an immediate priority for the Air Force and is likely to be pursued only when Edwards AFB is in full compliance with other cultural resource mandates (appendix D).

Section 110 – 16 U.S.C. 470h-2(b) — Recordation of historic properties prior to demolition. The Edwards AFB ICRMP satisfies the requirements of this paragraph by creating a process for documenting eligible properties according to the most appropriate HABS/HAER level corresponding to the property's significance. The Edwards SOP also requires the HABS/HAER documentation to be sent to the appropriate repositories in a timely fashion.

Section 110 – 16 U.S.C. 470h-2(c) — Designation of Federal agency preservation officers. The installation complies with this requirement and no changes are expected. The Edwards AFB Environmental Management Director selects the BHPO. The selection is predicated on the approval of the selectee's qualifications by MAJCOM.

Section 110 – 16 U.S.C. 470h-2(d) — Conduct of agency programs consistent with the Act. The Edwards AFB ICRMP meets the requirements of this paragraph by establishing a business model that initiates section 110 activities for all properties, regardless of age, as discussed in the SOP for historic buildings and structures. The Edwards AFB documentation process for NRHP-eligible properties will likely produce more and higher-level HABS/HAER documentation than would usually be expected through traditional section 110 compliance procedures.

Section 110 – 16 U.S.C. 470h-2(e) — Transfer of surplus Federal historic properties The Edwards AFB ICRMP will not have any impact on compliance related to the transfer of surplus historic buildings and structures. Due to the mission and location of Edwards AFB, it is unlikely that transfer of surplus historic buildings and structures will ever become an issue for the installation.

Section 110 – 16 U.S.C. 470h-2(f) — Federal undertakings affecting National Historic Landmarks. The Edwards AFB ICRMP is not expected to impact the base's ability to comply with the historic landmark provisions of section 110. Although Rogers Dry Lake is a National Historic Landmark, no Edwards historic buildings or structures are currently designated as national landmarks, and no such designations are foreseeable.

Section 110 – 16 U.S.C. 470h-2(g) — Preservation activities as an eligible project cost. Edwards AFB seeks funding to ensure adequate preservation activities to keep the base in compliance, with emphasis on eliminating delays in mission activities.

Section 110 – 16 U.S.C. 470h-2(h) — Preservation awards program. The Edwards AFB ICRMP will have no impact on the installation's ability to comply with this paragraph, which deals with historic preservation achievement awards.

Section 110 – 16 U.S.C. 470h-2(i) — Applicability of National Environmental Policy Act. The Edwards AFB ICRMP will have no impact on the installation's obligation to prepare environmental impact analysis documentation associated with NEPA.

Section 110 – 16 U.S.C. 470h-2(j) — Disaster waivers. The Edwards AFB ICRMP will have no impact on the installation's ability to comply with the disaster waiver provisions of this paragraph. The issue of national security, which is mentioned in this paragraph, is discussed in section 3.2.3.2 of the ICRMP.

Section 110 – 16 U.S.C. 470h-2(k) — Anticipatory demolition. Due to Edwards AFB's mission-critical infrastructure management requirements, the base's management of NRHP-eligible properties is intentionally weighted heavily toward precompliance with section 110. Internal SOPs will produce HABS/HAER documentation that will meet section 110 requirements.

Section 110 – 16 U.S.C. 470h-2(l) — Documentation of federal agency section 106 decisions. The Edwards AFB ICRMP will ensure compliance with the provisions of this paragraph by mandating preparation of an annual report that documents all installation decisions made pursuant to section 110, as discussed under Annual Historic Property Report to SHPO, section 2.4.2.4.1.

2.4.2.2.4 Building and Structure File/Data Management

To effectively manage their historic facilities, Edwards AFB shall establish a separate file for each NRHP-eligible building at the base that includes the information listed below. Data available in electronic format shall be stored in the base's GIS once the historic buildings and structures module of the system is developed. Data not available in digital format shall be stored archivally in the Edwards AFB curation facility. Data types should include, but not be limited to, the following:

a. Facility number – current and historic
b. Facility name/nomenclature – current and historic
c. Edwards AFB building number
d. State site number (site numbers are given to buildings no longer tracked by Real Property and these are mostly in ruins and old enough to be archaeology sites)
e. Location on map – if information is not sensitive – current and historic
f. Use/function – current and historic
g. Occupant/tenant – current and historic
h. Housing data – General Officers Quarters (GOQ); non-GOQ, if applicable
i. Date of construction
j. NRHP eligibility status – individual, contributing, individual/contributing, not eligible, potentially eligible, not evaluated
k. District name – if applicable
l. NRHP eligibility themes – (e.g., WWII, Man in Space, Cold War)
m. NRHP eligibility subthemes – (e.g., X-15)
n. Class – I, II, III
o. AF Form 1430 data – e.g., construction materials, building systems, and maintenance log
p. Standard plan number – if applicable
q. List of existing drawings including drawing number, date, title, and location
r. Existing photographs – interior and exterior

s. Cross-references to historic photographs – may be on file at the base Historian's Office

t. Statements of significance – including separate global, national, DOD, service, MAJCOM, state, local, and/or installation-specific significance/theme statements as applicable

u. Copy of HABS/HAER documentation – all levels

v. List of important features – those that exemplify facilities significance

w. History of the physical development of building – if no HABS/HAER documentation

x. Cross reference existing reports related to facility – including date, title, and location

y. Cross references to technical files related to facility

A list of buildings and Archaeological sites currently determined eligible for and listed on the NRHP is available in appendix E.

2.4.2.2.5 Evaluation

Edwards AFB shall evaluate its facilities in accordance with NHPA and supporting regulations, with guidance from *How to Apply the National Register Criteria for Evaluation* (NRB 15)*, Guidelines for Evaluation and Nominating Properties That Have Achieved Significance within the Past Fifty Years,* NRB 22 (Sherfy and Luce 1979), and *Interim Guidance for the Treatment of Cold War Historic Properties for U.S. Air Force Installations* (CAFH 1994). Property evaluations shall be completed by or under the direct supervision of a person or persons meeting, at a minimum, the Secretary of the Interior's Professional Qualifications Standards per appendix A of 48 FR 22716, (http://www2.cr.nps.gov/laws/ProfQual83.htm).

2.4.2.2.5.1 NHRP Significance Criteria and Integrity Factors for Properties at Least 50 Years Old

Historical significance is largely determined on the basis of significance criteria and integrity factors.

Criteria A through D, as defined in NRB 15, will govern the evaluation of Edwards AFB properties that are at least 50 years old. The NRHP significance criteria are:

A—properties associated with events that have made a significant contribution to the broad patterns of our history;

B—properties associated with the lives of persons significant in our past;

C—properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and

D—properties that have yielded, or may be likely to yield, information important in prehistory or history.

In contrast to conventional views about historic buildings and structures, properties at Edwards AFB will tend to be significant for reasons other than distinctiveness of architectural design or workmanship. Instead, many will rank high in significance because of advanced RDT&E technologies or engineering systems that they house. While these engineering systems are concrete and tangible, they may be incorporated into a structure's interior in ways that are not visually distinctive or readily apparent to the untrained eye. Furthermore, many engineering systems may be relatively ephemeral in that their components may be destined for dismantling and incorporation into future

RDT&E infrastructure. While this cannibalization of engineering infrastructure is an inevitable fact of life in an advanced national security RDT&E complex, the infrastructure is no less worthy of consideration on the basis of that fact alone.

Many other facilities at Edwards AFB may rank high in significance for their association with important events and/or persons (see criteria A and B). In these cases, there will be little if any tangible evidence of this associative significance.

Once a facility meets one or more significance criteria, the concept of integrity comes into play. National Register Bulletin 15 defines integrity as the ability of a property to convey its significance, usually (but not always) by means of its physical features. The seven aspects of historic integrity defined by NRB 15 are: Location, Design, Setting, Materials, Workmanship, Feeling, and Association. It is important to understand that integrity is a relative concept that depends not only on the condition of the subject property, but also on the condition of similar surviving properties. The ultimate goal of Air Force policy is to preserve historically significant properties that retain the highest levels of integrity.

2.4.2.2.5.2 NRHP Significance Factors for Properties Less than 50 Years Old

The bulk of properties in the Edwards AFB inventory date from the Cold War era (1946 to 1991). Because the first Cold War era facilities have recently begun reaching the 50-year age threshold, a number of Edwards AFB Cold War era properties have already been evaluated under section 110; and 100 have been determined to be NRHP-eligible. Additional facilities constructed during and after the Cold War remain to be evaluated.

In evaluating Cold War era properties, all of the significance factors and integrity aspects noted previously, as discussed in NRB 15, are considered. However, because these facilities are younger and have 'less history' behind them, to be NRHP-eligible they must reach a much higher standard for significance than buildings 50 years old or more. This higher standard is called exceptional significance, and it is defined in NRB 22. A property less than 50 years old may have significance under National Register Criteria A through D, but it must have exceptional significance to be NRHP-eligible (criterion consideration G, "A property achieving significance within the past 50 years if it is of exceptional importance"). Exceptional significance of Cold War-era properties may arise through close association with national-level military themes directly tied to Cold War national security issues, or through association with other themes or personalities at the state or local level.

Due to the inherent difficulty of rating a Cold War-era property as exceptionally significant based only on a limited historical perspective, the Air Force developed its "Interim Guidance for the Treatment of Cold War Historic Properties for U.S. Air Force Installations" to help cultural resource managers make this determination. This guidance addresses several important issues that arise mainly in evaluating properties of recent vintage, such as the need for Air Force installations to be discriminating in their evaluations due to the sheer volume of "material culture" amassed during the long duration of the Cold War. The "Interim Guidance" also addresses the topic of historical significance that arises not from a structure's physical attributes, but from associations with major events or distinguished historical figures.

Note that historic themes play a central role in establishing whether a property less than 50 years old has exceptional significance. In general, themes provide the conceptual perspective from which to evaluate the significance of historic properties. Section 2.3 is dedicated to a detailed discussion of the role of themes in the evaluation of cultural resources.

In the case of Edwards AFB and its abundance of properties less than 50 years old, themes and subthemes related to the Cold War or Man in Space play a central role in determining whether a facility has exceptional significance. For a property to be judged exceptionally significant, it must vividly demonstrate one or more of the indicated themes in an exceptional manner to a general audience with a layman's understanding of the Cold War context.

2.4.2.2.5.3 Evaluating Post-Cold War Facilities

No Air Force guidance currently exists for evaluating properties constructed after the Cold War. Until Air Force-specific guidance is developed, it is recommended that the BHPO will refer to NRB 22. There is, likewise, no guidance available—either from the Air Force or any other source—on themes for evaluating post-Cold War era facilities. Edwards AFB intends to address this future requirement for ensuring NHPA compliance by taking the initiative to develop site-specific post-Cold War themes.

2.4.2.2.6 Facility Classification Issues for Prescribing Treatment Level

2.4.2.2.6.1 Property Types and the Class System

A property classification system has been developed for Edwards AFB, based on factors used earlier in the evaluation process. These factors were derived from the "Interim Guidance for the Treatment of Cold War Historic Properties for U.S. Air Force Installations" and other studies involving Cold War themes and property types. Essentially, the evaluation criteria are reused at this stage of the process for purposes of prescribing the level of treatment. Although this classification system was derived from Cold War studies, it also applies to post-Cold War properties. Each Edwards AFB facility shall be assigned to one of three significance/treatment priorities: Class I, II, or III. Each class corresponds to a different significance/ treatment protocol. Criteria for determining appropriate priority levels are:

a. Class I properties are defined as frontline, mission-critical facilities. Class I properties are those that are essential to the installation's ability to complete its mission and, therefore, merit a high level of preservation investment. Advanced RDT&E facilities and command, control, communications, computers, and intelligence (C^4I) complexes and systems; such as Hangar 4305 and Test Stand A, are examples of this class.

b. Class II properties are secondary mission-support facilities. Class II properties contribute substantially to the installation's mission-effectiveness and, therefore, merit consideration for an intermediate level of preservation investment. The Water Fire Pump Station (Building 1930) and the Research Equipment Storage (Building 1960), both associated with the X-15 facility, are examples of this class.

c. Class III properties are tertiary support facilities. They may have noteworthy physical attributes or associations with major events or distinguished people and, therefore, merit consideration in planning and decision-making. Operational support facilities, training facilities, and housing and community facilities, such as the North Base Fire Station (Building 4456) and the Sanitary Sewage Pump Station (Building 4451), are examples of this class.

Class I properties are the most likely to be of exceptional significance due to their direct role in formulating or executing Cold War policy. Class II properties are less likely to meet the standard for exceptional significance due to their reduced mission-criticality, but they may nevertheless have been the sites of major technological contributions to military history. Class III properties are, generally, unlikely to be of exceptional significance due to their routine mission in support of the installation, but may have a unique association with a major historical figure or milestone event.

These three classes of properties are useful for prioritizing and prescribing levels of documentation. However, it must be noted that any class of facility can illustrate a powerful Cold War theme—sometimes quite unexpectedly—so this classification system will not be applied or interpreted as a substitute for professional judgment.

2.4.2.2.6.2 Determining Level of Documentation

The HABS/HAER documentation plays a major role in the Edwards AFB Alternative Management SOP for historic buildings and structures (see *Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation: HABS/HAER Standards, 1990*) (http://www.cr.nps.gov/habshaer/habs/habsstan.htm). The SOP specifies that an optimal level of documentation be determined, namely a level equivalent to the traditional processes of mitigation that would be required to satisfy the significant alteration/demolition mandates in NHPA section 110 (b). For purposes of this Alternative Management SOP, a property's class designation defines the required level of HABS/HAER documentation.

a. For NRHP-eligible properties in Class I, document to HABS/HAER Level II. (Note that HABS/HAER Level I is reserved for National Historic Landmarks [NHLs] and properties having exceptional national significance for which there are no as-built drawings on file.)

b. For NRHP-eligible properties in Class II, document to HABS/HAER Level II or III as appropriate for its level of significance.

c. For NRHP-eligible properties in Class III, document to HABS/HAER Level III.

2.4.2.2.7 Monitoring Strategies for Historic Buildings and Structures

a. Conduct routine inspections of NRHP-eligible buildings and structures to ensure that their physical condition matches existing HABS/HAER documentation. Update documentation as necessary.

b. Monitor, maintain, and update the GIS and layer sets that include historic buildings and structures data.

c. Monitor NRHP-eligible buildings and structures (occupied or vacant) regularly to ensure they are adequately maintained IAW NHPA section 110. Notify Civil Engineering of any noncompliance.

d. Monitor vacant NRHP-eligible buildings and structures regularly to encourage their appropriate reuse IAW NHPA section 110. Document successful reuse examples for future reference.

2.4.2.3 Standard Operating Procedures for Historic Buildings and Structures: A Special Case

These SOPs are placed in the main text rather than the appendix because of the importance of developing an alternative management process for these resource types.

To comply with NHPA section 106, Edwards AFB is currently required to develop an MOA for each NRHP-eligible facility targeted for substantial alteration or demolition. As explained previously, standard NHPA section 106 procedures have a high potential to encumber the Edwards AFB advanced national security RDT&E mission. Historically, facilities at Edwards AFB that are obsolete and remain unused for an extended time are likely to be demolished due to mission requirements and economic realities. Similarly, Edwards RDT&E facilities that are deemed suitable for reuse are typically cannibalized, gutted, retrofitted, and/or otherwise substantially altered to accommodate a new mission-critical function.

To balance Edwards AFB mission requirements and fiscal accountability with the public interest in preserving significant historic properties, a set of alternative management SOPs is outlined below. The intent of the alternative SOPs is to satisfy SHPO information exchange and/or review needs while accommodating Edwards AFB's legitimate need to rapidly evolve its RDT&E infrastructure and dispose of obsolete facilities.

2.4.2.3.1 Annual Historic Property Report to SHPO

Provisions of this ICRMP require that Edwards AFB annually track and coordinate historic facility efforts and provide an annual report to the California SHPO no later than 1 March for the previous fiscal year. This report is inspired by the *Secretary of the Interior's Report to Congress on Federal Archaeological Activities* (http://www.cr.nps.gov/aad/fedarch.htm), but addresses the built environment with special focus on Edwards AFB resources and activities. For FY00 reporting, this report to Congress included a new addendum on historic buildings and structures that encompassed Cold War, as well as other, historic themes. All of the questions in the addendum have been assimilated into the Annual Historic Property Report to the California SHPO, and include:

a. Updated annual list of NRHP listed historic districts (comprised of historic buildings, structures, and land use areas, not Archaeological districts) on Edwards AFB-managed lands;

b. Updated annual list of historic districts on Edwards AFB-managed lands determined eligible for the NRHP by the Keeper of the Register, or through documented consultation with the SHPO;

c. Updated annual list of historic districts on Edwards AFB-managed lands that are considered potentially eligible for listing on the NRHP but not formally determined eligible by the Keeper or through documented consultation with the SHPO;

d. Updated annual list of historic buildings or structures on Edwards AFB-managed lands listed on the NRHP. Included in this list are those buildings or structures within NRHP-listed districts;

e. Updated annual list of historic buildings or structures nominated to the NRHP, but not yet accepted as eligible by the Keeper;

f. Updated annual list of NRHP historic buildings or structures on Edwards AFB-managed lands determined eligible but not nominated to the NRHP. Include those comprising eligible districts;

g. Updated annual list of buildings or structures on Edwards AFB-managed lands that might meet some historic criteria, but which have not been evaluated for NRHP eligibility (potentially eligible);

h. Updated annual list of NRHP-eligible historic buildings or structures on Edwards AFB-managed lands that were demolished since the previous annual report and thus removed from the Edwards AFB inventory. Included in this list are demolished building and structures and a bibliographic listing of their corresponding HABS/HAER documentation reports for which SHPO informational copies were provided;

i. Updated annual list of undertakings affecting NRHP-eligible historic buildings or structures on Edwards AFB-managed lands since the previous annual report. Included in this listing is a bibliographic listing of their corresponding HABS/HAER documentation reports for which SHPO informational copies were provided;

j. Updated annual list of NRHP-eligible historic buildings or structures on Edwards AFB-managed lands for which HABS/HAER documentation was completed. Included in this list are the levels of documentation (I, II, III, IV);

k. Updated annual list of MOAs and/or Programmatic Agreements (PAs) related to historic districts and/or buildings or structures in effect for the year being reported;

l. Updated annual list of historic district and/or building or structure-related problems with ICRMP implementation and/or issues encountered during the year (if any), and list of ICRMP/MOA/PA changes Edwards AFB proposes to address these problems; and

m. If needed, clarification of information reported in the preceding list.

2.4.2.3.2 Alternative Management SOP for Edwards AFB Facilities

Edwards AFB shall ensure that its historic buildings and structures are managed, evaluated, and documented according to the following SOP in lieu of standard NHPA section 106 procedures (Figure II-1). Unlike standard section 106 procedures, the SOP is not initially triggered by the 50-year rule, but is initiated for properties regardless of age. Also unlike standard section 106 procedures, the primary historic documentation of eligible properties is standard practice instead of responding to an undertaking. Nevertheless, certain subprocesses within the SOP are dependent on the building's age, and a proposed undertaking on an eligible property always triggers procedures that will ensure section 106 compliance.

As noted, this alternative management SOP is initiated for all existing facilities regardless of age. The core procedure addresses eligible facilities, with subprocesses to address changes in eligibility that may come with age (i.e., when the property reaches 50 years of age) or the effects of an undertaking. The procedure also accounts for all properties that are initially deemed ineligible or become ineligible after an undertaking.

Step 1: In preparation for the evaluation, the facility's age is first determined.

Facilities less than 50 years old are evaluated using "Interim Guidance for the Treatment of Cold War Historic Properties for U.S. Air Force Installations, June 1993" and NRB 22. Facilities 50 years or older are evaluated using NRB 15. In both cases, the optimal level of documentation is identified via a class system for any facility determined to be eligible. In either case, eligibility status is determined. If the facility is determined to be eligible, the procedure moves to Step 2(a); if the facility is determined to be ineligible, the procedure advances to Step 3.

Step 2: If the facility is determined to be NHRP-eligible, regardless of age.

a. HABS/HAER documentation will be prepared at the level prescribed earlier under Determining Level of Documentation. The completed documentation is then duplicated and the original is sent to the NPS, and a duplicate record copy is archived at the Edwards AFB curation facility. The transmittal letter and any subsequent correspondence between Edwards AFB and NPS is also archived systematically at the Curation Facility. No further action is conducted unless an undertaking is proposed, in which case Step 3 is initiated.

b. An additional informational copy is sent to the California SHPO, and the transmittal letter is filed with the duplicate record copy.

Step 3: If the facility is ineligible,

a. The process is complete and no further action or tracking are required.

b. If the facility is less than 50 years old, it is scheduled for reevaluation when it reaches 50; at which time Step 3(c) is initiated.

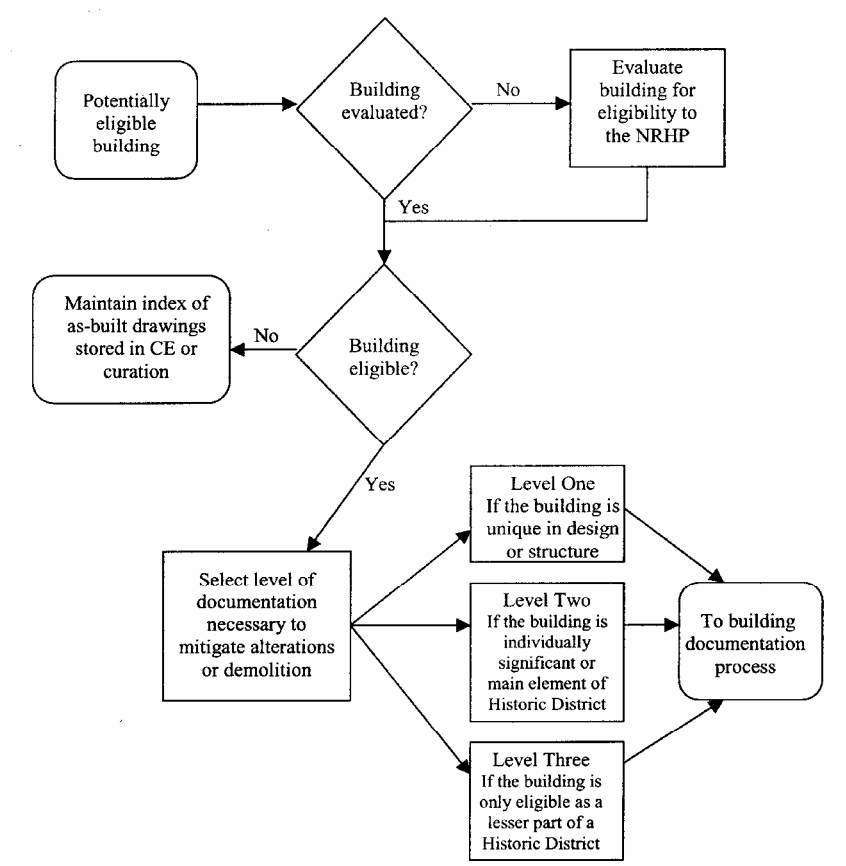

Figure II-1. Building Management Process

c. When the building reaches 50 years of age, a reevaluation is conducted as in Step 1 using NRB 15. If at that time the facility is determined to be NHRP-eligible, the process described in Step 2(a) is initiated; if the facility is determined to be ineligible, no further action or tracking is required.

Step 4: If an undertaking is proposed for NHRP-eligible property

a. The following actions must be completed 45 days in advance of the proposed undertaking.

b. If documentation has already been completed and submitted to NPS, a reminder notification shall be sent to the SHPO. If no evaluation and/or documentation has been completed, Step 1 and/or Step 2 shall be initiated as appropriate.

c. Coordinate with the Edwards AFB Public Affairs Office to ensure that public notice of the proposed undertaking is posted IAW requirements of NHPA section 106 and 32 CFR 989, EIAP.

Any subsequent actions, as addressed in Step 4, depend on whether the proposed undertaking goes forward.

If an undertaking is completed as proposed, the as-modified facility shall be evaluated as described in Step 1, and all subsequent steps of the SOP shall be completed. If the proposed undertaking is canceled, a brief memorandum of explanation shall be prepared for attachment to the original duplicate record copy, and no further actions will be conducted unless another undertaking is proposed. When any new undertaking is proposed, Step 4 shall be reinitiated. Copies of all related correspondence shall be attached to the original duplicate record copy in the Edwards AFB curation facility.

2.4.2.3.3 Historical Building and Structure Documentation Process

Edwards is involved in a program to gather all existing original drawings of eligible, and some potentially eligible, buildings for future HABS requirement (Figure II-2). Original as-built drawings and other drawings contributing necessary information for eligible and potentially eligible buildings are being retrieved from CE and inventoried, and will be archived in the Curation Facility.

2.4.2.4 Historic Land Use Areas

Historic Land Use areas will be considered in a later revision of the ICRMP because the information is not currently available.

2.4.2.5 Monuments and Memorials

For the purposes of this ICRMP, monuments and memorials shall be defined as fixed objects in the built environment, of relatively small-scale construction, that are primarily artistic and/or commemorative in nature or having some purpose of visual reference. Examples include statuary, sculpture, fountains, and boundary markers. According to Air Force Policy Directive (AFPD) 84-1, *Historical Information, Property, and Art*, cultural resources can be distinguished from those resources under the purview of the base historian in that the Edwards AFB real estate office tracks them as real property.

Monuments and memorials directly linked to historic events, acts, or places related to Edwards AFB are considered cultural resources. Those having no such link, that are randomly placed about the base, are not categorized as cultural resources subject to the requirements of this document. Monuments and memorials are treated like buildings, and are under the purview of the Edwards AFB real estate office and tracked as real property (AFPD 84-1).

Edwards AFB has 17 monuments and memorials. They are considered buildings/structures by the BHPO. These potential resources were formally recorded and evaluated in FY03 and FY04. Three of these were recommended as eligible for the NRHP, and a managent plan for this type of resource was developed.

2.4.2.6 Documents

Edwards AFB can refer to the SOP proposed in this ICRMP to manage its documents. The SOP explains that AFI 37-138, *Information Management, Records Disposition* (31 March 1994) governs Air Force document procedures and responsibilities. In addition to AFI 37-138, a procedural framework is in place for the disposal of most Air Force record types. Disposition rules are outlined in Air Force Manual (AFMAN) 37-139*, Information Management, Records Disposition Schedule* (1 March 1996). The objective of a document program at Edwards AFB is to identify, collect (or reproduce), organize, catalog, label, and store all significant documents related to NRHP-eligible or potentially eligible properties at Edwards AFB, including those pertaining to sub-bases under Edwards AFB control. An archivist organizes, catalogues, labels, and prepares for storage all materials to be placed in the Edwards curation facility. Reproducible copies of all original cartographic drawings of NRHP-eligible or potentially eligible properties will be prepared where no digitized version exists. The reproducible copies would remain in the possession of CE for everyday use while the original drawings would be deposited in the Edwards AFB curation facility.

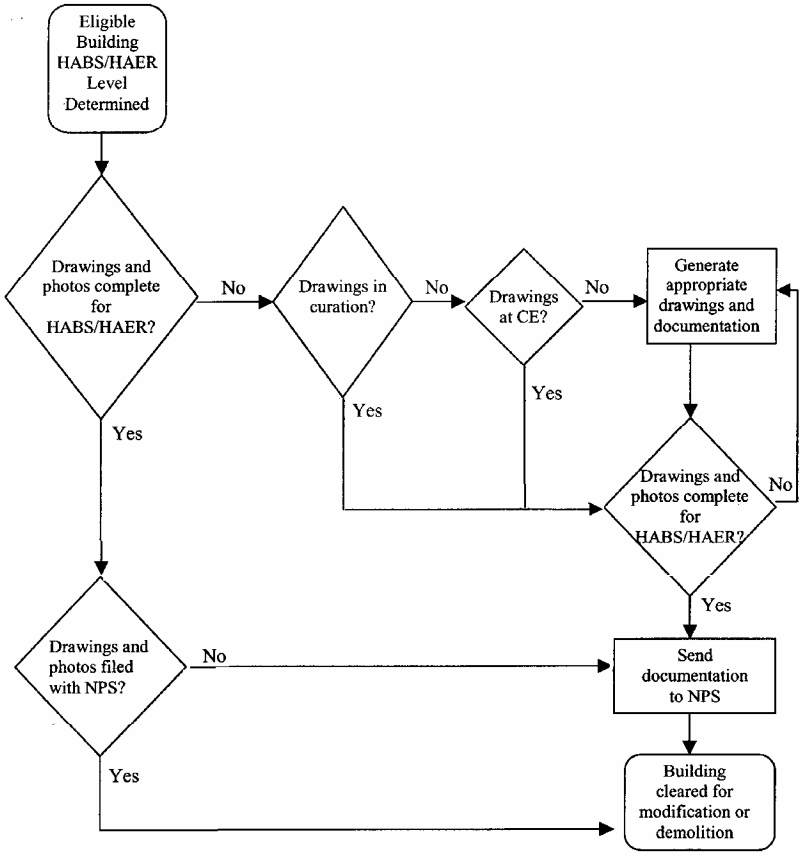

Figure II-2. Building Documentation Process

2.4.2.6.1 Understanding and Working with AFI 37-138 and AFMAN 37-139

At Edwards AFB, economical and efficient records management involves:

a. Scheduling all records for retention or periodic destruction,

b. Preserving records that reflect the organization, functions, policies, decisions, procedures, and essential transactions of the air force,

c. Preserving records that protect the legal and financial rights of the government and of individuals that Air Force actions directly affect,

d. Offering records of enduring value for permanent preservation in the national archives.

e. Promptly and systematically disposing of records of temporary value, and

f. Setting up safeguards against illegal removal, loss, or destruction of records.[1]

Air Force Instruction 37-138 and AFMAN 37-139 cover procedures and responsibilities regarding these activities. To simplify these activities, government documents—including Air Force documents—are divided into three basic types: permanent, temporary, and unscheduled.

[1] U.S. Criminal Code 18 U.S.C. 2071 lists penalties for willfully and unlawfully destroying, damaging, or altering records. The maximum penalty is a $2,000 fine, 3 years in prison, or both; loss of office, and disqualification from holding any U.S. office.

Permanent records include those that the Archivist of the United States decides have enduring value because they document the organization and functions of the Air Force, and/or they contain significant information on persons, things (such as historic buildings or manufactured objects), places, events, problems, and conditions with which the Air Force has dealt. While Air Force personnel justify records that they consider worthy of permanent retention, only the Archivist of the United States is authorized to approve the permanent retention of records. Such approvals take the form of appropriate disposition standards published in AFMAN 37-139; U.S.C. Chapter 33, *Disposal of Records*; The National Archives and Records Administration (NARA), *General Records Schedules* (NARA 1998); and Federal Information Resources Management Regulation (FIRMR) (41 CFR 201).

Temporary records are those determined by the Archivist of the United States to have insufficient value to warrant their preservation by the National Archives. These records are disposable after a fixed period or after a trigger event according to disposition schedules in AFMAN 37-139.

Unscheduled records are those not disposable under the General Records Schedules; those that have not been approved for retention by NARA; those described but not authorized for disposal by NARA because they are on "Disposition Pending" status or NARA has not completed its appraisal. The Air Force is not allowed to retire unscheduled records to records centers without special permission from the office of the Secretary of the Air Force (SAF/AAIQ), which will send a request to NARA to waive these restrictions.

Of particular interest to the Edwards AFB BHPO is AFMAN 37-139, Table 32-3, "Historic Preservation Program." This table defines historic preservation documents as those relating to Air Force real property listed, eligible for nomination, or nominated but not yet approved for the NRHP. The disposition of these documents is "pending/unscheduled." When referring to Table 32-12, "Leased Real Property Case Files," note that there is a cross-reference to Table 32-3. This indicates that records on leased NRHP-eligible real property fall under the Historic Preservation Program records disposition schedule.

Cartographic records—those pertaining to mapping, design, and computational drawings—are especially relevant to cultural resource activities. Table II-1 lists various AFMAN 37-139 disposition tables that address drawings.

The Archivist of the United States accepts for deposit with the National Archives any Air Force records that the Archivist decides have sufficient administrative, historical, or other value to keep. Normally the transfer of Air Force records to the National Archives is conducted from federal records centers. However, an organization may offer certain records for direct transfer to the National Archives of the United States by sending a Standard Form (SF) 258, *Request to Transfer, Approval, and Receipt of Records to National Archives of the United States*, to SAF/AAIQ describing the contents, nature, and quantity of the material proposed for transfer. SAF/AAIQ signs the SF 258 and sends it to the National Archives. The Office of Primary Responsibility, SAF/AAIQ, and the National Archives arrange the transfer and set up the conditions for using the material. Additionally, the National Archives determines the kind of records that it will accept and whether to retire them to federal records centers or transfer them directly to the National Archives.

2.4.3 Geographic Information System

Edwards AFB makes extensive use of the GIS in managing and maintaining cultural resources data. The GIS allows cultural resources data to be overlaid with other base infrastructure information like the location of buildings, roads, and utilities, as well as remote sensing data including several sets of color aerial photographs. Using the GIS, project planners and EIAP/NEPA writers can quickly access cultural resources data for planning purposes, including areas cleared of cultural concerns, roads cleared for grading, and buildings cleared for modification or demolition.

Table II-1. Selected Air Force Dispsition Table

Table No.	General Category	Record Category	Disposition
10-6	Operational reports and analyses	Analyses record copy drawings	Permanent
14-12	Sensitive Compartmented Information (SCI) physical security records	SCI Facilities validation and accreditation drawings	Disposition Pending/ Unscheduled
32-10	Real property management	Real property case file drawings	Permanent
32-15	Engineer qualification records and project control files	Engineer project control file drawings	Disposition Pending/ Unscheduled
32-16	Civil engineer design data	Maps, plans, drawings, and photographs	Disposition Pending/ Unscheduled
32-18	United States Air Force military construction program status reports and construction project files	Construction project control file drawings	Disposition Pending/ Unscheduled
61-2	Individual research and development (R&D) projects	R&D case file drawings	Disposition Pending/ Unscheduled
63-1	Industrial readiness and mobilization	Industrial mobilization and procurement planning	Permanent
63-3	Industrial facilities records	Industrial facilities case file drawings	Permanent

The GIS has a cultural resources layer set that serves as the digital data repository for the Cultural Resource Program. This layer set is a sophisticated information system that is comprised of seven components including ARPA, Buildings, Catalog, Documents, Program Management, Sites, and Surveys. The layer set also employs a relational database model ensuring that data is shared between each component, thereby greatly increasing data accuracy and minimizing data entry and maintenance efforts. The Edwards cultural layer set can be accessed through a special Web interface on the base intranet.

The ARPA component tracks disturbance and visibility information for each site that qualifies under the ARPA guidelines, as well as information pertaining to fence breaks that occur along the base boundary. This data is used to monitor looting activity and provides Security Forces with locations to monitor and patrol for disturbance activities.

The Buildings component stores data that pertains to cultural resource management above and beyond the descriptive data stored in the noncultural layer set databases. Of particular interest are data relating to HABS/HAER documentation. The Catalog component warehouses data for artifacts collected during Phase I inventories, for collected and observed artifacts recorded during Phase II or Phase III investigations, and for paleontological materials.

The Documents component contains references for reports and a bibliography. Many of the documents in this component are tied to individual sites via a project number. This component allows a researcher or manager to easily locate documents associated with a specific project or site.

The Program Management component is used exclusively by the BHPO to manage the cultural resources on base. This component relates specific resources to individual projects both internally, as well as to the ACES management program.

The Program Management component affords the BHPO a great deal of flexibility by informally developing projects and then copying the appropriate fields into the ACES database.

The Sites component is geared toward those resources that are managed as a site. This database warehouses descriptive information for each resource. The data for each site is taken from the Archaeological site records maintained in the Curation Facility.

Lastly, the Survey component tracks information pertaining to individual surveys that have been performed on base. The interaction between each of these components provides the BHPO and the contractors that work on base an extremely powerful and flexible tool to manage and analyze the cultural resources on Edwards AFB.

2.5 Reporting Requirements

2.5.1 Air Force Materiel Command Standardized Compliance and Conservation Programming Guidance

Environmental compliance and conservation program managers within AFMC currently use two databases to manage requirements. The first is the newly developed Automated Civil Engineer System-Project Management (ACES-PM) module, which replaces the previously used A-106 module. The ACES-PM module is the official information system that AFMC uses to validate and track environmental requirements and report budgets and program execution through the Air Staff. Data from ACES-PM is used to prepare key budgeting documents such as the President's Budget the Budget Estimate Submission (BES), and the POM. The second database is the EQ database, which is a Microsoft® Access database that the Headquarters, AFMC Environmental Quality Branch (HQ AFMC/CEVQ) uses to gather additional details about environmental Compliance and Conservation requirements. The EQ database, previously referred to as the ECP database, allows the Program Execution Team at HQ AFMC greater flexibility in tracking validation and execution, and managing resources. The EQ database also allows much greater flexibility in creating standard and user-defined reports.

Base managers are also required to plan, budget, and report environmental program and financial data using AFMC's Business Performance Indicator (BPI) Approach. The unit cost, activity, and output data generated by this approach provides the basis for AFMC to evaluate and improve its business performance. Currently, the Conservation requirements for entries into the EQ database are being revised. Edwards AFB collects the following information and quarterly inputs it into the EQ database: Operations & Maintenance (O&M) data, such as the number of American Indian consultations, newly recorded sites, the number of Phase I inventories accomplished, monitoring information and the number of Level 1 projects in progress.

Maintaining the integrity of information among these planning, programming, budgeting, and reporting systems is essential for tracking execution of the current program and for ensuring that adequate resources will be available in the future to fulfill the environmental compliance and conservation requirements of AFMC. The purpose of this document is to assist program managers at both base and MAJCOM levels in managing the continuity and integrity of each environmental compliance and conservation medium throughout the programming cycle. In preparing this guidance, Edwards AFB set the following five goals:

a. Strengthen the ACES-PM module against increased scrutiny,

b. Make programming requirements as objective as possible,

c. Reduce the burden of validation on base and MAJCOM program managers,

d. Integrate the EQ database and ACES to make the module easier to manage, and

e. Provide data integrity and a consistent linkage with AFMC BPI data by tying the LOS, BPIs and funding (EQ/ACES) together.

Each of these goals will be accomplished by standardizing the way in which environmental compliance and conservation requirements are programmed. This document specifies consistent project titles and critical data fields; recommends narrative text and structure; and provides general guidance and assumptions for base program and media managers. This guidance will ensure that standardized environmental requirements are properly programmed in the ACES-PM module and EQ database and that these requirements are also consistent with data reported in AFMC's Business Approach (AFMC 2000) (appendix B).

2.5.2 Secretary of the Interior's Report to Congress on Federal Archaeological Activities

The Secretary of Interior's Report to Congress on Federal Archaeological Activities is mandated through 16 U.S.C. section 470, et seq. and the ARPA of 1979. Annually, MAJCOM sends to Edwards AFB, as a federal agency with land management responsibilities, a standardized questionnaire that, when completed, provides information on cultural resource activities occurring that year. After the BHPO collects the necessary data, the report is reviewed by environmental management and then sent to MAJCOM where the report is compiled along with other DOD installations and submitted to the Secretary of the Interior. The data for this report is currently collected in surveys defined in the fall Environmental Quality Review (EQR) data call. The data is compiled and is then submitted by the MAJCOM to Air Staff, and Air Staff submits it to the NPS. For full details on this process, see AFI 32-7065.

3.0 INTEGRATION

3.1 Introduction

To effectively implement this ICRMP, cultural resources compliance activities must be fully integrated with Edwards AFB mission activities. The installation commander has an obligation to comply with cultural resource legislation and must ensure that cultural resources are taken into account with respect to tenant activities. This ICRMP was developed to assist the installation commander with cultural resource compliance activities by incorporating cultural resource data into installation plans and anticipating potential conflicts. The many Edwards AFB organizations, as well as the many off-base organizations and civilian contractors that also work on Edwards AFB, become proponents in the EIAP.

Edwards AFB must also respond to issues and concerns of outside agencies. These include historic preservation organizations, recognized tribes, as well as federal, state, and local agencies. This ICRMP provides guidance for effectively integrating cultural resource management activities with these interested groups. Installation activities that also potentially affect cultural resources include master planning, operations and maintenance, and natural resource management.

This section provides approaches for integrating cultural resources activities with all relevant offices.

3.2 Internal Integration

3.2.1 Base Organizations

The AFFTC and AFMC missions are fulfilled by the Edwards AFB organizations. These organizations include those that conduct flight testing, directly support flight testing, and indirectly support flight testing by maintaining the Edwards AFB infrastructure. The AFFTC command, including several base organizations such as the Test Wing, Civil Engineer Group, Information Technology, and other organizations that are crucial to the mission success at Edwards AFB, support these USAF organizations.

The BHPO has a tenant-host cooperative arrangement with two tenants at Edwards AFB: NASA and the Aair Force Research Laboratory (AFRL). The AFRL Edwards Research Site at Edwards AFB is one of

four laboratories that constitute the AFRL, which is headquartered at Wright-Patterson AFB in Ohio. The AFRL at Edwards AFB is part of the Propulsion Directorate. The AFRL Propulsion Directorate:

a. Plans and executes the USAF exploratory development, advanced development, and assigned research programs for flight vehicle propulsion and aircraft power technology,
b. Conducts in-house research and development to exploit new opportunities, maintain technical expertise, and verify contractor findings,
c. Provides technical and managerial assistance in support of studies, analyses, development planning activities, acquisition, test, evaluation, modification, and operation of aerospace systems and related equipment, and
d. Provides the principal USAF interface with scientific, industrial, educational, and other government agencies, and is the Command focal point in these technical areas (Ronning et al. 2000).

The mission of the NASA Dryden Flight Research Center (DFRC) is to conduct safe and timely flight research for discovery, technology development, and technology transfer for U.S. aeronautics and space preeminence. This includes conducting aeronautical flight research in support of global civil aviation, technology leaps, and access to space. In addition, the DFRC supports development and operation of the Space Shuttle and future space vehicles. The DFRC also conducts airborne science missions and flight operations and develops piloted and unmanned aircraft test beds for research and science missions (NASA DFRC 1999). Edwards AFB is an alternate landing site used by NASA's space shuttle when weather conditions preclude landing in Florida.The agreements between Edwards AFB and AFRL and NASA are jointly covered under a 1997 Memorandum of Agreement. In the MOA, different sections refer to various responsibilities in each of the cases: AF and NASA, and AF and AFRL (Memorandum of Agreement 1997).

The agreement with NASA is that of an alliance: the Cultural Resources Program will help support (and has supported) NASA in their Environmental Impact Analysis Process, but NASA is ultimately responsible for in-house, day-to-day cultural resource management and maintenance, depending on size and scope of effort.

The AFRL/Cultural Resources relationship is more of a host-tenant relationship. The AFRL's relatively isolated location on the east-central portion of the base reinforces their separateness. The BHPO provides for completion of section 106 work for them.

All of the other base organizations are under the Edwards command umbrella and fall under the jurisdiction of the BHPO. On the occasion when a test project comes in, such as the X-33 or C-17 projects, the visiting contractor takes on responsibility of the land use. That program may obtain a contractor to do the cultural resource support, with the approval of the BHPO, or may reimburse the BHPO for completing the work. Typically, for most of these projects, Environmental Management handles all the NEPA work. In the end, all base organizations must go through EM and the BHPO for potential effect on cultural resources.

Other organizations have either day-to-day work or full-time temporary "contract" business on base. These include a myriad of civilian contractors that are part of Air Force test projects, including Avionic Integration Laboratory (AIL)/Technical Service Operations, Boeing Company, JT3, General Electric Company, Lockheed-Martin Tactical Aircraft Systems, McDonnell Aircraft Company, McDonnell Douglas Aerospace Company, Pratt and Whitney, Rockwell International, Symvionics Inc., and TYBRIN Corporation.

3.2.2 Compliance Procedures and Activities

3.2.2.1 Section 106 Compliance

To comply with section 106 of the NHPA, all proposed USAF projects must consider potential effects to cultural resources. Evaluations for cultural resources assessments are part of the USAF's system of environmental review. Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*, is the guidance by which the USAF implements the NEPA of 1969 (Public Law [PL] 91-190, 42 U.S.C. 4321 et seq.). The EIAP is established by 32 CFR, Part 989, Environmental Impact Analysis Process, and provides compliance with the President's Council on Environmental Quality Regulations (40 CFR 1500-1508) for implementing the procedural provisions of NEPA. Cultural resources EIAP support is described in detail in *Cultural Resources Overview and Management Plan for Edwards AFB, California, Vol. 3, 2000*, sections 11.1.2 and 11.1.3 (Ronning et al. 2000). The EIAP is summarized in Figure II-3.

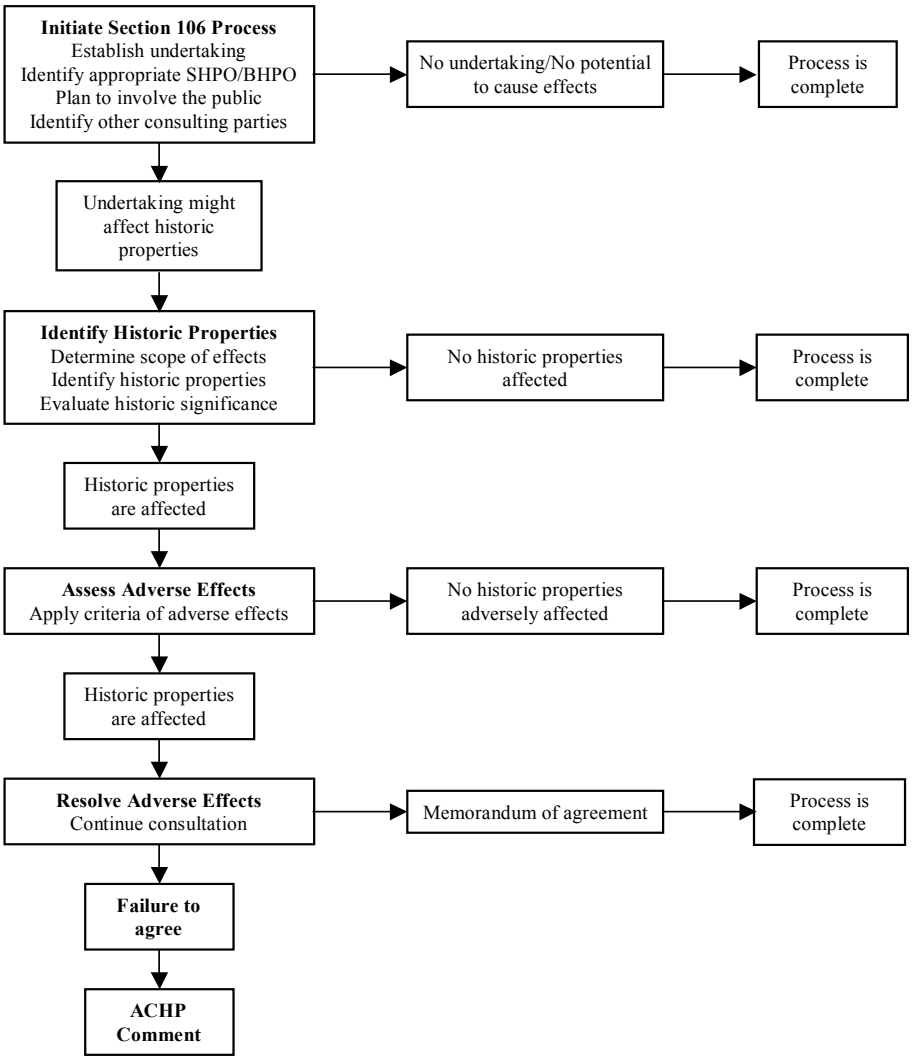

Figure II-3. Section 106 Flowchart

On Edwards AFB, most projects are subject to the EIAP, which incorporates the section 106 process. The EIAP begins when a proponent (office, unit, or activity at any level) develops an action (plan or proposal) for a USAF project that has the potential to affect the natural or man-made environment. The proponent is responsible for notifying the Environmental Planning Function (EPF) of a pending action. "The EPF is an interdisciplinary staff, at any level of command, responsible for the EIAP (32 CFR 989.3[d]).

At Edwards AFB, the EIAP process is managed and completed within the conservation branch of the EM; the same branch to which the BHPO is assigned (EMXC), so there is a close coordination and working relationship between EIAP and BHPO functions.

The EPF staff includes professionals whose specialties include land use planning, biological and cultural resources, air quality, water resources, geology and soils, health and safety, hazardous materials and waste, and pollution prevention. At Edwards AFB, the EPF is the 95th Air Base Wing Environmental Management Directorate, Conservation Branch (95 ABW/EMXC).

3.2.2.2 The Environmental Impact Analysis Process

Notification could be through an Air Force Form 813, *Request for Environmental Impact Analysis*; Form 332, *Base Civil Engineering Work Request;* Form 103, *Base Civil Engineering Work Clearance Request (Digging Permit)*; or DOD Form 1391, *Request for Military Construction Project Data*. When 95 ABW/EMXC receives a request, in the form of an 813, 332, or 103, to implement an action, the project description is reviewed to determine if the proposed project meets the threshold of the proposed action's potential to affect the natural or man-made environment and, hence, implementation of the EIAP. At Edwards AFB, this review function is performed by the 95 ABW/EMXC. Routine basic maintenance, activities that clearly have no potential to impact the natural or man-made environment, or resumption or continuation of pre-existing actions that were previously evaluated through the AF Form 813 process, do not meet the minimum threshold for implementing the EIAP and are documented as having no environmental concerns.

However, if the minimum threshold is met, 95 ABW /EMXC notifies the proponent that the proposed action requires the implementation of the Air Force Form 813 process. The proponent completes Part I of the Air Force Form 813 and submits the form to the EPF. Part I includes the title of the proposed action, purpose and need for the proposed action, and description of the proposed action and alternatives. The 95 ABW /EMXC completes Parts II and III (environmental survey analysis and the environmental analysis determination) of the Air Force Form 813 in accordance with the EIAP guidelines as directed by AFI 32-7061, *The Environmental Impact Analysis Process*.

The NEPA requires mandatory scoping. The proposed project is initially scoped, and preliminary inputs are acquired concerning the potential issues of the proposed action. Initial scoping determines the depth of analysis of the project through consulting with the various staff professionals knowledgeable about each environmental issue. Consultation on cultural resources is provided by the BHPO. The proposed project is then presented to the Assessment Review Group, a subcommittee of the base Environmental Protection Committee, for confirmation on the level of analysis. The project may qualify for a categorical exclusion (CATEX) or need a more in-depth analysis requiring an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). A project qualifies for a CATEX when the project exhibits no potential for a significant impact to the human environment and can be assigned to one of the established list of exclusions. A project needs an EA when potential for significant impact may exist, but these impacts can be mitigated to insignificant levels. An EA is also needed when an applicable CATEX cannot be identified. If the EA cannot support a Finding of No Significant Impact (FONSI), then an EIS

must be accomplished. Most projects are redesigned, or impacts are mitigated, so the EA results in a FONSI, rather than a decision to accomplish an EIS.

In 1999, the EIAP staff at Edwards AFB developed a programmatic EA. The cultural resources sections of this EA contain general descriptions of the types of activities that may affect cultural resources. These sections also contain a variety of options to address these effects in order to comply with section 106, ARPA, and NAGPRA.

3.2.2.3 National Security

In those infrequent instances where classified programs are involved with section 106 activities, the intent and requirements of the NHPA will be complied with. In some cases, security limitations may prevent assessments and evaluations from being conducted in a manner similar to unclassified projects. Section 106 requirements involving classified programs shall be conducted on a case-by-case basis. This may include the BHPO being briefed into the classified program, the BHPO being briefed on the proposed undertaking at an unclassified level, or another qualified member of the environmental management staff that is cleared for the program assessing the undertaking. On occasion, national security programs may include their own environmental review and staff. In all cases, every effort will be made to ensure compliance with all required cultural resources laws and regulations.

3.2.2.4 Review

The Staff Judge Advocate's Office monitors the base's compliance with cultural resource legislation through a review of all correspondence and reports and attendance at the monthly NCRS meetings.

3.2.3 Potential Effects to Cultural Resources by Edwards AFB Organizations

The AFFTC and AFMC missions are fulfilled by the Edwards AFB organizations These organizations include those that conduct flight testing, directly support flight testing, and indirectly support flight testing by maintaining the Edwards AFB infrastructure. Potential impact to cultural resources at Edwards AFB can be placed into general categories of activities, many of which are shared by more than one organization and some that are unique to one organization. A survey was accomplished that fully identified activities that could have the potential to affect cultural resources. A list of the general categories of impact can be found in Table II-2. For a more complete listing of such activities, see appendix J.

3.2.3.1 Characterizations of Activities by Organization

Interactions between the test programs and the cultural resources program largely involve building renovations. The test programs periodically need to renovate their offices, hangars, and support buildings to support their flight test missions. However, test programs may also require ground-disturbing activities, such as drop zone and target construction, on the Precision Impact Range Area (PIRA) and in undeveloped parts of the base.

Projects generated by most command and support organizations on Edwards AFB that may affect cultural resources are usually limited to renovations of existing facilities and construction of new facilities in developed parts of Edwards AFB and training, including combat, exercises. The Plans Directorate (XP), 95th Air Base Wing Environmental Management Directorate (95 ABW/EM), Security Forces and Civil Engineer organizations are exceptions.

Table II-2. Activities Impacting Cultural Resources

Activities Impacting Cultural Resources	
Construction Activities	**Other Activities**
• Road widening, new roads • New buildings and other structures • Realigning streams, adding drainage ditches • Repair and maintenance on or near a building over 50 years old • Renovation, modification, demolition, or removal of a building or structure	• Clearing land of vegetation • Borrow pits: expanding existing ones, creating new ones • Excavation or other earth moving activity • Clearing and grubbing • Impacts from revegetation, placement of tortoise fencing, guzzlers, pitfall closures, etc • Change in land-use • Abandoning a property or putting it into layaway • Leases or use of property by third parties • Use of heavy equipment or tracked vehicles off-road • Neglect • Any other undertakings that could affect Archaeological sites or historic buildings and structures
Training Exercises	
• Simulating battlefield conditions, including the use of ammunition and smoke grenades • Traversing the training area (e.g., on foot or by vehicle) • Providing ground support for operational training exercises involving aircraft (e.g., external load hookups, confined area loading, and loading/ unloading palletized cargo from taxiing aircraft) • Search and rescue training exercises including the recovery of flight crews and downed aircraft • Constructing foxholes • Maintaining and refueling vehicles and aircraft	

The XP Directorate is responsible for strategic and programmatic planning on Edwards AFB, including fiscal and design planning, and coordinates all projects on Edwards AFB with the base's overall plan. The individual projects overseen by the XP Directorate are usually programmatic in nature or belong tooff-base organizations that the base is trying to bring to Edwards AFB. Either type of project is potentially an undertaking as defined by 36 CFR 800. 9.

Two programs overseen by 95 ABW/EM that may affect cultural resources are the Environmental Restoration Program (ERP) and the Natural Resources program. The ERP involves the removal of underground storage tanks, the excavation of monitoring wells, the capping of existing wells, and the cleanup of toxic spills possibly within the boundaries of historic period sites and districts. These ERP sites may also be located within the boundaries of prehistoric sites as well. Examples of natural resources activities that may affect cultural resources include the construction of human exclusion and tortoise fences, the closure of pitfall hazards, and road closures.

Projects associated with the Security Forces Squadron requiring cultural resources support have included the creation of off-road vehicle (ORV) and canine training areas and the creation of suspect vehicle inspection areas near the Edwards AFB entry control points.

The CE organizations and the Army Corps of Engineers oversee most of the projects at Edwards AFB requiring cultural resources support such as building renovations, building demolition, road repair and construction, and utility repair and replacement. Programmatic EAs exist to guide many of the activities overseen by Civil Engineer such as roof repair, the disposal of buildings, and routine road repair.

However, the section 106 process was not completed for any programmatic EAs on Edwards AFB. Although all of the major roads on Edwards AFB have been surveyed for the presence of cultural resources (Dowell 1996), Phase II evaluation may still be necessary if a road needing repair and/or widening passes through a site. Any buildings added to the disposal list in the future will need to be inventoried (de la Garza and Roth 1996). All of the programmatic EAs on Edwards AFB indicate that the BHPO must be contacted when any activity they cover is planned so that any cultural resource concerns may be addressed.

Although the Civil Engineer squadron is responsible for most utilities, Information Technology (IT) oversees the installation and maintenance of all communication equipment. This includes antenna and above and belowground telephone and fiber-optic cables. When possible, IT places new cables within existing utility corridors or along roads where effects to cultural resources have already been mitigated. However, it is always possible that a new communications cable will need to be placed in an unsurveyed area. Proposed cable routes often have some flexibility; early in the design stage, IT is usually willing to move cable routes to avoid cultural resources.

3.3 External Integration

Edwards AFB Cultural Resources Program is a partner in several organizations and programs that are external to the day-to-day operation or the long term planning efforts at Edwards AFB.

3.3.1 The Legacy Resource Management Program

The DOD Appropriations Act for FY 1991 provided $10,000,000 to initiate the Legacy Resource Management Program (LRMP). The program was designed to provide an opportunity to enhance the management of natural and cultural resources. Its primary purpose was to better integrate the conservation of natural and cultural resources with military missions and public interest and to teach people within the DOD why these resources need protection and conservation. Legacy's initiatives are multidisciplinary and multipurpose and use state-of-the-art technologies. Initiatives include ecosystem management, regional initiatives, partnering programs, cultural and integrated resources management, and curation of DOD Archaeological collections.

Edwards AFB reviews calls for funding requests from LRMP and keeps abreast of developments in the field that are generated or sponsored through the Legacy program. Edwards AFB may obtain LRMP funding by preparing and submitting winning project proposals. Calls for proposals ordinarily come through major command, HQ AFMC/CEVQ. Proposals are then submitted on-line to DOD. If a project is selected for funding, the funds are sent to the base through the chain of command.

Between 1992 and 1995, Legacy grants were awarded to Edwards AFB to conduct 10 projects (Table II-3). All Edwards AFB LRMP projects have been completed. Edwards AFB submitted a proposal in FY 2000 for the enhancement of desertwide Archaeological site protection. The project was selected for funding, however, other DOD priorities arose, and no funding for this project was available. No additional proposals have been submitted since 2000. However, since 1995, no additional monies have been awarded to Edwards AFB.

3.3.2 The Mojave Desert Ecosystem Program

The Mojave Desert Ecosystem Program (MDEP) is the result of a DOD initiative to promote integrated management of the cultural and natural resources in the Mojave Desert. It is supported through the LRMP and is multidisciplinary in scope. Partners include all federal land management Table II-3. Edwards Air Force Base Legacy Projects agencies within the region. The cultural resources component of the MDEP, the Paleontological and Cultural Resource Action Team (PACRAT), has four proposed

Table II-3. Edwards Air Force Base Legacy Projects

Legacy Project No.	Project Description	Report Citation
66	Muroc Community Inventory	Earle 1998
72	Legacy of Pancho Barnes Oral History Program	Terreo 1994
482	Overview of Paleontological Resources on Edwards Air Force Base	Science Applications International Corporation 1994
768	Phase II Evaluation of Buckhorn Springs	Bupp et al. 1998
779	United States Air Force/National Aeronautics and Space Administration Lifting Bodies Study	Miller and Terreo 1995; PAT Projects, Inc. 1994
1003	Cold War Jets Study	Stagg and Terreo 1995
1022	Private Collections Research	Kamplain and Miller 1995
1236	Phase II Evaluation of Area P Housing	York et al. 1997
9510075	Project to Protect the Lansford Adobe Using Remote Technology	Pittman 1999; Valdez et al. 1998
9510076	Burial Practices Study	Campbell et al. 1997

goals. The first is to establish an interactive inventory of all cultural resources in the Mojave Desert and guide management and research objectives. This will be accomplished by compiling an inventory of all the cultural and paleontological resources inventories that have been conducted in the Mojave Desert and then developing a GIS for all cultural resources recorded in the Mojave Desert. This will involve standardizing the way the different agencies in the Mojave Desert collect new cultural resources data and incorporating all the information on file at the Archaeological Information Centers concerning the Mojave Desert region into the system. Once the system is in operation, approved users will be able to query, manipulate, transfer,and download the data on the system (Paleontology and Cultural Resource Action Team *Fiscal Year 1996 Annual Work Plan* [PACRAT] 1996).

The PACRAT's second and third goals are to: provide recommendations and strategies for continued research and enhance awareness of the sensitivity and value of cultural and paleontological resources. The fourth goal is to implement policies to ensure compliance with federal legislation. Initial plans for accomplishing this goal include developing guidelines for American Indian consultation, establishing an American Indian Consultation Coordination Committee, developing improved interaction and communication between cultural resource managers and law enforcement personnel, and adding a cultural resources section to the MDEP Home Page on the Internet (PACRAT 1996).

Edwards AFB participates in the MDEP by attending PACRAT meetings and by coordinating with the MDEP when there are projects of mutual concern. For FY 2002, Edwards AFB is working on a statewide project that involves digitization of all sites around Southern California. Edwards AFB is specifically involved in reconciling what Edwards AFB has as site locations and descriptions and what the SHPO has for the same site locations and descriptions.

Edwards AFB benefits from participation because the BHPO will have access to regionwide data useful for supporting and designing programmatic approaches to certain types of resources, gaining perspective to better evaluate sites within the base, and will have access to data throughout the region. This is particularly important since Edwards AFB airspace encompasses a large portion of the Mojave Desert. The CHRIS will also provide safe backup of all Edwards AFB's Cultural Resources data.

3.3.3 The California Historical Resources Information System

The California Historical Resources Information System (CHRIS) is a statewide system for managing information on the full range of historical resources identified in California and is authorized and directed by the SHPO and is carried by 12 Information Centers and the CHRIS central data storage/transfer hub. This information is currently managed through hardcopy of both current and historic maps. This system is being transformed into an electronic GIS and document image-based system. Edwards AFB is one of the 12 sponsoring partners participating in an attempt to standardize site records in the Mojave Desert Region. Site information at Edwards AFB has been provided to CHRIS to facilitate this process.

3.3.4 Self Inspection

Air Force bases perform periodic self-inspections to assess compliance with environmental laws. The *Environmental Compliance Assessment and Management Program (ECAMP)* is one of the processes used to identify and track solutions to environmental problems (AFI 32-7045). The primary objectives are to:

a. Improve Air Force environmental management worldwide to meet compliance standards, and
b. Build supporting financial programs and budgets for funding environmental requirements.

Secondary objectives are to:

a. Eliminate underlying environmental problems through root cause analysis;
b. Identify systematic environmental problems;
c. Forecast future compliance requirements;
d. Evaluate the effectiveness of internal environmental management programs through Environmental Management Self-Assessment; and
e. Accommodate the common interests in assessing environment, safety, and occupational health programs

Cultural resources are included in the 13 compliance protocols tracked by ECAMP. There is an external ECAMP conducted by off-base personnel assigned by MAJCOM. This assessment occurs every 2 to 3 years and is more rigorous than the internal ECAMP that is conducted annually by installation personnel.

There are three stages of ECAMP. The first stage is a preassessment period in which the assessment team is formed and reviews all relevant federal, state and local regulations, applicable DOD and Air Force instructions and past ECAMP reports. The second stage is the actual site assessment in which the team conducts records searches, interviews and site surveys to determine the compliance status of the installation. Ongoing feedback is provided to the installation environmental manager so that as many findings as possible can be rectified immediately. The final stage is the preparation of the reports used to follow up site assessment activities by tracking progress on management action plans and resolving issues and problems identified by root cause analysis.

The ECAMP write-ups on the lack of a central curation facility provided impetus for construction of the existing Edwards AFB Curation Facility; and a recent ECAMP violation generated funding to evaluate a series of Archaeological sites that were impacted by base-sponsored projects.

At Edwards AFB, ECAMP is accomplished throughout the year, and portions of the program are periodically assessed for potential compliance problems and noncompliance concerns and root causes are

identified. Such problems are documented in a Notice of Findings (NOF); and if cultural resources were damaged, mitigation of such impact is part of the closure of the Finding. Solutions are sought to prevent similar occurrences in the future.

3.4 External Review Agencies

Edwards AFB coordinates its cultural resources program with several nonmilitary agencies. These agencies offer valuable assistance in the implementation and management of the base cultural resources efforts. This assistance frequently takes the form of advice and suggestions on how to better accomplish the requirements set forth in federal statutes and regulations.

3.4.1 California State Historic Preservation Office and Office of Historic Preservation

The SHPO, according to the National Historic Preservation Act of 1966 as amended, must review all undertakings and actions that affect cultural resources on public lands.

The BHPO is the point of contact between the SHPO and Edwards AFB. Cultural resources responsibilities in this relationship include reviewing work, preparing documentation necessary for section 106 in both cases where no adverse effect or adverse effect is found, presenting mitigation proposals, keeping data current in regards to master planning staff, and negotiating MOAs and Programmatic Agreements to preserve, protect, and manage cultural resources. The phone number for SHPO is 916-653-9134.

3.4.2 National Park Service

National Historic Landmarks (NHL) are acknowledged as our nation's most important historic and Archaeological places. They are places of exceptional national significance that illustrate the nation's heritage. At Edwards AFB, a portion of Rogers Dry Lake was designated as an NHL in 1985 because of its association with many aerospace firsts. The NHPA requires that the NPS be notified of any adverse affect to a NHL in the section 106 process.

3.4.3 Advisory Council on Historic Preservation

The ACHP is an independent federal agency created by the NHPA, and is the major policy advisor to the Government in the field of historic preservation. The ACHP provides a forum for influencing federal policy, programs, and decisions as they affect historic resources in communities and on public lands nationwide, and administers section 106 of NHPA. The ACHP is composed of 20 members who are private citizens and experts in the field (appointed by the President) along with federal agency heads and representatives of state, local, and tribal government. Anyone can contact the ACHP and ask them to get involved in a project, and they have the right to step in and review and comment on any project.

The Edwards' BHPO, on occasion, has invited the ACHP to offer advice on the treatment of resources and to settle conflicts that arise with SHPO over matters such as eligibility determinations. Anyone can contact them and ask them to get involved in a project, and they have the right to step in and review and comment on any project.

3.4.4 Federally Recognized Tribes

As directed by a number of federal laws, executive orders, and DOD policy, the installation is responsible for consulting with these tribes. The Presidential Memorandum on Government-to-Government Relations with Native American tribal governments, signed on 29 April 1994 (Presidential Memorandum 1994), directed executive branch departments and agencies to coordinate and consult with American

Indian tribes at appropriate levels through established tribal governmental structures. On 20 October 1998, the DOD responded to this White House Memorandum by establishing its American Indian and Alaskan Native Policy (DOD Policy 1998).

A number of federally recognized Indian tribes have historical ties to the area now encompassed by Edwards AFB and have identified themselves as interested parties and culturally affiliated with the Edwards AFB area. A list of federally recognized Indian tribes and interested Indian groups is found in Table II-4. The U.S. Government has recognized these tribes as sovereign nations in treaties, and currently recognizes them as unique political entities in a Government-to-Government relationship with the United States. These tribes have standing in legislation, such as NAGPRA, NHPA, ARPA, and Executive Order (EO) 13007, that is different in comparison to the public, nonfederally recognized American Indian communities, and individuals of American Indian descent. Communication and consultation with Indian tribes should occur at the Government-to-Government level. Correspondence sent to the tribal government head should be initiated and signed by the 95 ABW Installation Commander. The 95 ABW Installation Commander should open or close a meeting at which the BHPO, the Chairman, and official tribal representatives are present. Edwards AFB will establish protocol for ensuring that communication and consultation with affiliated Indian tribes respects that special Government-to-Government relationship. The SOP for American Indian Consultation is in appendix D.

Table II-4. Federally Recognized Indian Tribes and Interested Indian Groups

Federally Recognized Indian Tribes	Interested Indian Groups
Chemehuevi Reservation, Colorado River Agency	Kawaiisu Tribal Council
Colorado Indian Tribes Tribal Council	Tehachapi Indian Tribe (Kawaiisu)
Morongo Band of Mission Indians	Native American Heritage Preservation Council (Kawaiisu)
San Manuel Band of Mission Indians	Kern Valley Indian Community (Tubatulabal/Kawaiisu/Koso/Yokut)

3.4.5 Other Interested Parties

Individuals doing university research and interested people and organizations in cultural resource management issues can be considered as other interested parties. Relationship and response to such parties will be facilitated by the BHPO.

3.4.6 Public Access to Cultural Resources

The nature of the Edwards RTD&E mission, and security issues that emanate from this mission, preclude much public access to the base. Programs such as the Edwards Air Show, Pancho Barnes Party, and Muroc Lakebed racing offers limited access to the base by the public. Cultural resources “tourism” includes visits to museums, flightline tours, and NASA. Tours for visiting dignitaries, Archaeological groups, and historical groups are given by reservation only. Because of increased National Security requirements, public access to the base has been significantly restricted.

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PART III: APPENDICES

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APPENDIX A
STATUTES AND REGULATIONS

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STATUTES AND REGULATIONS

Statutes and regulations that pertain to the management of cultural resources on Army installations are listed and described or referenced below. A summary of each statute and regulation follows. Statutes and regulations that have the full-text on the World Wide Web are underlined.

1.0 STATUTES

- Abandoned Shipwreck Act of 1987—43 U.S.C. [United States Code] 2101-2106
  Establishes ownership and preservation responsibilities for abandoned shipwrecks in waters of the United States.

- American Indian Religious Freedom Act of 1906, as amended 1994—42 U.S.C. 1996
  Protects and preserves for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

- Antiquities Act of 1906—16 U.S.C. 431-433; 34 Stat. 225
  Provides protection for Archaeological resources. The first general act of its kind, it protects all historic and prehistoric sites on Federal lands and prohibits excavation or destruction of such antiquities without the permission (Antiquities Permit) of the Secretary of the department that has jurisdiction over those lands. It also authorizes the President to declare areas of public lands as National Monuments and to reserve or accept private lands for that purpose.

- Archaeological and Historic Preservation Act of 1974—16 U.S.C. 469-469c
  Provides for the preservation of historical and Archaeological data (including relics and specimens) that might otherwise be lost as the result of the construction of a dam or any alteration of the terrain resulting from Federal construction project or federally licensed activity or program.

- Archaeological Resources Protection Act of 1979—ARPA—16 U.S.C. 470aa-470ll
  Secures the protection of Archaeological resources and sites that are on public lands and Indian lands, and fosters increased cooperation and exchange of information between governmental authorities, the professional Archaeological community, and private individuals having collections of Archaeological resources and data that were obtained before the date of the enactment of this act.

- Historic Sites Act of 1935—16 U.S.C. 461-467
  Declares that it is a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States.

- National Environmental Policy Act—NEPA—42 U.S.C. 4321-4370c
  Compels informed decision-making by Federal agencies and their departments by requiring consideration of all relevant environmental consequences of proposed actions and involving the public in the decision-making process. As our basic national charter for protection of the environment, the NEPA establishes policy, sets goals (section 101), and provides means (section 102) for carrying out the policy. Section 102(2) contains action-forcing provisions to make sure that Federal agencies act according to the letter and spirit of the Act. The NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.

- National Historic Preservation Act of 1966, as amended—NHPA—16 U.S.C. 470-470w
  Allows for the expansion and maintenance of a national register (section 101), requires all Federal agencies to take into account the effects of their actions on the nation's historic properties (section 106), and directs Federal agencies to assume responsibility for the preservation of historic properties that are owned or controlled by such agency (section 110). Notes that the historical and cultural foundations of the country should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.

- Native American Graves Protection and Repatriation Act of 1990—NAGPRA—25 U.S.C. 3001-3013 and/or Public Law 101-601, 104 STAT. 3048, 16 November 1990
  Provides for the determination of custody, protection, and repatriation of American Indian human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony.

- Public Buildings Cooperative Use Act—40 U.S.C. 601-619
  Directs the Administrator to acquire and use space in suitable buildings of historic, architectural, or cultural significance, and to encourage public access to, and community use of public buildings for cultural, educational, and recreational activities. The Administrator must consult with Governors, other appropriate officials, and community leaders, when necessary.

- Reservoir Salvage Act of 1960 (as amended)—Public Law (PL) 86-523
  Federally constructed reservoirs represent another major source of destruction of Archaeological resources that cannot be resolved without a specific source of funding. The act requires Federal agencies building, or permitting the building of, reservoirs to notify the Secretary of the Interior when such activities might destroy important Archaeological, historic, or scientific data. The Secretary of the Interior is authorized to conduct appropriate investigations to protect those data. The act also authorizes agencies to spend up to 1 percent of their construction funds on the protection of historic and Archaeological resources. This is the first act to recognize that Archaeological sites are important for their data content and to provide a source of funding for collecting Archaeological data.

  In 1974, the Reservoir Salvage Act was amended by the Archaeological and Historic Preservation Act (see Page III-3A) to extend the provisions of the 1960 act to all Federal construction activities and all federally licensed or assisted activities that cause loss of scientific, prehistoric, or Archaeological data.

- Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 22716)
  The qualifications define minimum education and experience required to perform identification, evaluation, registration, and treatment activities. In some cases, additional areas or levels of expertise may be needed, depending on the complexity of the task and the nature of the historic properties involved.

- Sikes Act—16 U.S.C. 670a-670o, 74 Stat. 1052
  Provides for cooperation by the Departments of the Interior and Defense with state agencies in planning, development, and maintenance of fish and wildlife resources on military reservations throughout the United States.

- Sikes Act Improvement Amendment 1998
  Legislates that military installations will develop and implement Integrated Natural Resources Management Plans (INRMPs) and that military departments may enter into cooperative agreements with states, local governments, nongovernmental organizations, and individuals to

provide for the maintenance and improvement of natural resources on, or to benefit natural and historical research on, installations.

The Sikes Act authorizes natural and cultural resources programs to enter into special "cooperative agreements" with non-Federal entities to accomplish work on installations.

2.0 EXECUTIVE ORDERS (EO)

- EO 11593—Protection and Enhancement of the Cultural Environment
  Requires agencies of the executive branch of the Government to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; initiate measures that will facilitate the preservation, restoration, and maintenance of federally owned sites, structures, and objects of historical, architectural, or Archaeological significance; and in consultation with the Advisory Council on Historic Preservation, to institute procedures to assure that Federal plans and programs contribute to the preservation and enhancement of nonfederally owned sites, structures, and objects of historical, architectural, or Archaeological significance.

- EO 12512—Federal Real Property Management
  This EO ensures that Federal real property resources are treated in accordance with their value as national assets and in the best interests of the Nation's taxpayers. Provides for consistent Federal policies regarding the acquisition, management, and disposal of properties. Requires all executive departments and agencies to develop internal policies regarding effective use of real property and annual real property management improvement plans.

- EO 13007—Indian Sacred Sites
  This EO requires executive agencies with administrative responsibility for Federal land management to accommodate access to and ceremonial use of Indian sacred sites and avoid adversely affecting the physical integrity of sacred sites.

- EO 13175 - Consultation and Coordination with Indian Tribal Governments
  Replaces EO 13804. The purpose of this EO is to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes; Agencies shall respect Indian tribal self-government and sovereignty, honor tribal treaty and other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments.

3.0 PRESIDENTIAL MEMORANDA

- Government-to-Government Relations with Native American Tribal Governments
  Emphasizes the unique legal relationship between the United States Government and American Indian tribal governments. Executive departments and agencies are given principles that will enable them to conduct their activities in a manner that is respectful of the sovereignty of tribal governments.

4.0 FEDERAL REGULATIONS AND GUIDANCE

To search for Federal Regulations, online visit http://www.access.gpo.gov/nara/cfr/index.html

- Advisory Council on Historic Preservation (ACHP), Protection of Historic Properties—36 CFR [Code of Federal Regulations] 800

Outlines how Federal agencies carry out their consultation responsibilities under section 106 of the National Historic Preservation Act. It defines the roles of the Advisory Council on Historic Preservation, the State Historic Preservation Officer, the Tribal Historic Preservation Officer, and interested parties.

- Council on Environmental Quality, Regulations Implementing the National Environmental Policy Act—40 CFR 1500-1508
  Provides regulations applicable to and binding on all Federal agencies for implementing the procedural provisions of the National Environmental Policy Act of 1969, as amended (PL 91-190, 42 U.S.C. 4321 et seq.) (NEPA or the Act) except where compliance would be inconsistent with other statutory requirements.

- Department of the Interior, Curation of Federally-owned and Administered Archaeological Collections—36 CFR 79
  Establishes definitions, standards, procedures, and guidelines to be followed by Federal agencies to preserve collections of prehistoric and historic material remains, and associated records, recovered under the authority of the Antiquities Act (16 U.S.C. 431- 433), the Reservoir Salvage Act (16 U.S.C. 469-469c), the National Historic Preservation Act (16 U.S.C. 470h-2), or the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm).

- Department of the Interior, Determinations of Eligibility for Inclusion in the National Register of Historic Places—36 CFR 63
  Assists Federal agencies in identifying and evaluating the eligibility of properties for inclusion in the National Register.

- Department of the Interior, National Historic Landmarks Program—36 CFR 65
  Facilitates identification and designation of National Historic Landmarks, and encourages the long-range preservation of nationally significant properties that illustrate or commemorate the history and prehistory of the United States. These regulations set forth the criteria for establishing national significance and the procedures used by the Department of the Interior for conducting the National Historic Landmark Program.

- Department of the Interior, National Register of Historic Places—36 CFR 60
  Sets forth the procedural requirements for listing properties on the National Register and authorizes the Secretary of the Interior to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.

- Department of the Interior, Preservation of American Antiquities—43 CFR 3
  Places responsibility on the Secretaries of Agriculture, Army, and Interior for ruins, Archaeological sites, historic and prehistoric monuments and structures, objects of antiquity, historic landmarks, and other objects of historic and scientific interest on Federal lands that fall under their respective jurisdictions. Sets forth the types of permits that may be granted, to whom, and restrictions and requirements for authorized organizations who have obtained a permit for the examination of ruins, the excavation of Archaeological sites, and the gathering of objects of antiquity.

- Department of the Interior, Supplemental Regulations [per ARPA]—43 CFR 7
  Implements Department of the Interior provisions of ARPA of 1979, as amended (16 U.S.C. 470aa-mm) by establishing the uniform definitions, standards, and procedures to be followed by all Federal land managers in providing protection for Archaeological resources located on public lands and Indian lands of the United States.

- Department of the Interior, Waiver of Federal Agency Responsibility under Section 110 of the National Historic Preservation Act—36 CFR 78
  Authorizes the Secretary of the Interior to promulgate regulations under which the requirements in section 110 may be waived in whole or in part in the event of a major natural disaster or an imminent threat to the national security.

- Department of the Interior, The Secretary of the Interior's Standards for the Treatment of Historic Properties—36 CFR 68
  Provides guidelines for the treatment of historic properties. They include standards for preservation, rehabilitation, restoration, and reconstruction projects.

5.0 MILITARY REGULATIONS AND GUIDANCE

- Department of Defense, Protection of Archaeological Resources—32 CFR 229
  Implements Department of Defense provisions of ARPA of 1979, as amended (16 U.S.C. 470aa-mm) by establishing the uniform definitions, standards, and procedures to be followed by all Federal land managers in providing protection for Archaeological resources located on public lands and Indian lands of the United States.

- Department of Defense American Indian and Alaskan Native Policy
  Establishes Department of Defense principles for interaction with American Indian and Alaskan Native governments (tribes). Four main areas of concern are addressed: the trust responsibilities of the Department of Defense [DOD] and specific Federal statutes and policies that govern such responsibilities; how to conduct government-to-government relations; the consultation process; and preservation of natural and cultural resources significant to various tribes.

- Department of Defense, DOD Instruction [DODI] 4715.3: Environmental Conservation Program
  Guarantees that all DOD conservation programs will strive to continue access to land, air, and water resources for realistic military training and testing while ensuring that the natural and cultural resources entrusted to DOD care are sustained in a healthy condition for scientific research, education, and other compatible uses by future generations. All DOD facilities and installations shall, within available resources, plan, program, and budget to achieve, monitor, and maintain compliance with all applicable statutes and regulations.

  Internal conservation self-assessments will be conducted at least annually and external conservation self-assessments at least once every 3 years at all installations that require an Integrated Natural Resources Management Plan (INRMP) and/or an ICRMP.

  The principal purpose of DOD lands and waters is to support mission-related activities. Those lands and waters shall be made available to the public for educational or recreational use of natural and cultural resources when such access is compatible with military mission activities, ecosystem sustainability, and with other considerations such as security, safety, and fiscal soundness.

  American Indians shall have access to DOD sites and resources that are of religious importance, or that are important to the continuance of their cultures (e.g., areas containing traditionally used plants and hunting areas), consistent with the military mission, appropriate laws (42 U.S.C. 1996, reference [d]), and regulations, and subject to the same safety, security, and resource considerations as the general public.

  Personnel assigned duties involving natural or cultural resources shall have the appropriate knowledge, skills, and professional training and education to carry out those responsibilities. Necessary supplemental training to ensure that proper and efficient management of those

resources shall be provided quickly. Staffing levels and authority adequate to ensure that appropriate resource management and protection shall be provided, in accordance with section 328 of National Defense Authorization (NDA) Report 103-701 and section 2852 of NDA Report 103-499 (references [i] and [j]).

6.0 DEPARTMENT OF THE AIR FORCE REGULATIONS

- Air Force Instruction (AFI) 32-7061—*The Environmental Impact Analysis Process*
  Implements Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*. It describes specific tasks and procedures for the Air Force Environmental Impact Analysis Process.

- AFI 32-7065—*Cultural Resources Management*
  Implements AFPD 32-70 and DOD Directive 4710.1, *Archaeological and Historic Resources Management*. It provides the U.S. Air Force with guidelines for protecting and managing cultural resources and divides responsibility for the different aspects of cultural resource management among the different elements of the United States Air Force (USAF) organization. It also provides for the identification, evaluation, and protection of cultural resources and the nomination of properties to the National Register of Historic Places (NRHP). The AFI 32-7065 replaces Air Force Regulation 126-7, *Historic Preservation*.

  Under AFI 32-7065, USAF installations are to comply with the NHPA, NAGPRA, ARPA, and the American Indian Religious Freedom Act. The installations are to follow the section 106 process when assessing the effects of projects on cultural resources, and coordinate these efforts with NEPA processes. Data recovery efforts are to follow The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation and The Advisory Council Handbook on Treatment of Archaeological Properties (United States Department of the Interior 1983). The Major Commands (MAJCOMs) are to provide funding for artifact curation.

  Each installation is to prepare a cultural resources management plan every 5 years and submit it to MAJCOM for approval. However, the management plan should be reviewed and updated annually and incorporated into the base Comprehensive Plan. Installations are to track progress toward cultural resource management goals using a cultural resource management and inventory database, and maintain current maps showing the locations of all cultural resources.

- AFI 32-7080 (FINAL)—*Compliance Assurance and Pollution Prevention Program (CAPP)* dated 27 Sep 1999.
  Contains many environmental compliance tools such as samples of data requirements, interview data collection forms and flow diagrams, feasibility analysis, solution rankings, cost factors, economic analyses, weighted averages of Pollution Prevention solution costs to impacted compliance sites, a cause and effect diagram and analysis, and an action matrix.

- AFI 37-138—*Records Disposition – Procedures and Responsibilities*
  Implements AFPD 37-1, *Air Force Information Management,* by listing program objectives and responsibilities and guiding personnel in disposing of special types of records, retiring or transferring records using staging areas, and retrieving information from inactive records.

- Air Force Manual (AFMAN) 37-139—*Records Disposition Schedule*
  Implements AFPD 37-1, Title 44 U.S.C. 2904, 3102, 3301; and 36 CFR 1228.10 which require agencies to develop and implement records schedules for all of the records created or received by the agency and to obtain approval of the schedule from the National Archives and Records Administration.

AFMAN 37-139 is the approved records schedule for the Air Force. It consists of decision logic tables that provide disposition instructions for all Air Force records. This schedule is mandatory for use by all Air Force activities, including the National Guard; the United States Air Force Reserves; the Unified and Specified Commands for which the Air Force is Executive Agent; and contractor personnel who create, accumulate, or manage Air Force records.

- Air Force Policy Directive 84-1—*Historical Information, Property, and Art*
  Establishes policies for collecting, preserving, organizing, retrieving, interpreting, and employing historical information, historical properties, and art to keep comprehensive record of the Air Force's mission accomplishments and meet future needs. This document helps to create informed perspectives based on historical information that enable the Air Force to understand the present and plan for the future while remembering its heritage.

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APPENDIX B
AIR FORCE MATERIEL COMMAND
STANDARDIZED ENVIRONMENTAL COMPLIANCE
AND CONSERVATION PROGRAMMING GUIDANCE, SECTION 3.15

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AIR FORCE MATERIEL COMMAND STANDARDIZED COMPLIANCE AND CONSERVATION PROGRAMMING GUIDANCE

The Air Force Materiel Command (AFMC) Standardized Programming Guidance (SPG) begins after this cover page. This section refers to the programming requirements that guide the distribution and funding of Edwards AFB future cultural resource projects.

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Air Force Materiel Command
Standardized Environmental Compliance and Conservation
Programming Guidance

Section 3.15: Cultural Resources Management Requirements

20 November 00

Environmental Compliance Branch
Environmental Division
Civil Engineering Directorate
Headquarters Air Force Materiel Command
Wright-Patterson AFB, Ohio

This document is a media specific extract from the *AFMC Standardized Environmental Compliance and Conservation Programming Guidance*, 20 Nov 00 (referred to as the SPG). This document contains the necessary information for installation media managers to program **Cultural Resources Management** requirements as defined by the SPG. This extract can be used by itself and contains all the information needed for this specific media section. The only difference between this document and the full SPG is that the full SPG contains information on all media contained in the Environmental Compliance and Conservation product lines.

In keeping with the convention of the overall SPG, the extracted media section contains the same page numbers as the comprehensive document, starting with page number 257 and ending with page number 280.

FOREWORD

The creation of the Installations and Support (I&S) Mission Area within Air Force Materiel Command has brought about many changes to the way we go about the business of managing our environmental programs. This document is intended to supplement AFMC and Air Force programming guidance for the new Automated Civil Engineer System-Project Management (ACES-PM) to facilitate the management of the Compliance and Conservation product lines in accordance with the I&S strategic plan. The goal of this guidance is to maximize the degree to which we standardize the programming of requirements for each environmental medium within the Compliance and Conservation product lines. This is accomplished by specifying standard project titles and narratives for a variety of typical recurring and nonrecurring requirements. This will help program managers at both base level and MAJCOM-level manage the continuity and integrity of each environmental medium throughout the programming cycle. Additionally, this guidance also integrates, as much as possible, the results of the recent Air Force tiger teams to standardize project titles for Compliance and Conservation.

Summary of Changes from FINAL AFMC Standardized Environmental Programming Guidance, 20 Aug 99
This document introduces the use of the Automated Civil Engineer System-Project Management Module (ACES-PM), which replaces the IWIMS-ES A-106 database. Additionally, project titles are slightly modified from previous titles presented in the FINAL AFMC Guidance published in Aug 99. Some database fields and narrative requirements have also changed. A synopsis of the specific changes follows:

- ACES-PM replaces WIMS-ES as the official database for programming requirements.
- References to requirements formerly entered into A-106 now reference ACES-PM.
- ECP database is now referred to as the EQ database.
- Project titles have been revised to more closely align with the standardized programming titles and criteria currently being developed by an Air Force Tiger Team.
- I&S Medium database fields for the Compliance Product Line have been aligned to more closely match the Compliance Site Types defined in AFI 32-7080 (FINAL*), Compliance Assurance and Pollution Prevention*.
- Projects involving investments in Management Information Systems (MISs) will require breakouts of the cost basis of MIS systems or software in the project narratives.
- Contractor support for contractor-operated bases only will no longer be identified by a single project title.
- Nonrecurring projects in the Compliance Product Line will require breakout by I&S Activity.
- "O&S" is now defined as "annually recurring expenses."
- For vehicle leasing, the costs of fuel should now be included in the line item and broken out in the cost basis.
- The I&S Activity formerly classified as "Overhead" is now "Apportioned."

These specific changes are discussed in more detail in the Introduction and each of the chapters that follow.

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EXECUTIVE SUMMARY

Environmental compliance and conservation program managers within Air Force Materiel Command (AFMC) currently use two databases to manage requirements. The first is the newly developed Automated Civil Engineer System-Project Management (ACES-PM) module, which replaces the previously used A-106 module. ACES-PM is the official information system that AFMC will use to validate and track environmental requirements and report budgets and program execution through the Air Staff. Data from ACES-PM will be used to prepare key budgeting documents such as the President's Budget (PB), the Budget Estimate Submission (BES), and the Program Operating Memorandum (POM). The second database is the Environmental Quality (EQ) database, which is a Microsoft Access database that the AFMC Environmental Compliance Branch (HQ AFMC/CEVC) uses to gather additional details about environmental Compliance and Conservation requirements. The EQ database, previously referred to as the ECP database, allows the Program Execution Team at HQ AFMC greater flexibility in tracking validation and execution, and managing resources. The EQ database also allows much greater flexibility in creating standard and user-defined reports.

Base managers are also required to plan, budget, and report environmental program and financial data using AFMC's Business Approach. The unit cost, activity, and output data generated by this Business Approach provides the basis for AFMC to evaluate and improve its business performance. As the Business Approach evolves to an Activity-Based Management (ABM) and Activity-Based Costing (ABC) methodology, requirements data will more closely align with the data collected in the ACES-PM module and EQ database.

Maintaining the integrity of information among these planning, programming, budgeting, and reporting systems is essential for tracking execution of the current program and for ensuring that adequate resources will be available in the future in order to fulfill the environmental compliance and conservation requirements of AFMC. The purpose of this document is to assist program managers at both base and MAJCOM levels in managing the continuity and integrity of each environmental compliance and conservation medium throughout the programming cycle. In preparing this guidance, the following five goals were set:

- Strengthen the ACES-PM module against increased scrutiny
- Make programming requirements as objective as possible
- Reduce the burden of validation on base and MAJCOM program managers
- Make the Access EQ database and ACES-PM module easier to manage
- Provide data integrity and a consistent linkage with AFMC Business Approach data.

Each of these goals will be accomplished by standardizing the way in which environmental compliance and conservation requirements are programmed. This document specifies consistent project titles and critical data fields; recommends narrative text and structure; and provides general guidance and assumptions for base program and media managers. This guidance will ensure that standardized environmental requirements are properly programmed in the ACES-PM module and EQ database and that these requirements are also consistent with data reported in AFMC's Business Approach.

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LISTING OF ABBREVIATIONS AND ACRONYMS

ABC	Activity Based Costing
ABM	Activity Based Management
ACES	Automated Civil Engineer System
ACES-PM	Automated Civil Engineer System-Project Management
AFB	Air Force Base
AFI	Air Force Instruction
AFMC	Air Force Materiel Command
AFV	Alternative Fueled Vehicles
AIRFA	American Indian Religious Freedom Act
AOC	Area of Concern
ARPA	Archaeological Resources Protection Act
AST	Aboveground Storage Tank
BA	Business Approach
BER	Budget Execution Report
BMP	Best Management Practice
CAAA90	Clean Air Act Amendments of 1990
CESQG	Conditionally Exempt Small Quantity Generator
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CR	Cultural Resource
CRMP	Cultural Resources Management Plan
CTP2	Compliance through Pollution Prevention
CWA	Clean Water Act
DESC	Defense Energy Support Center
DoD	Department of Defense
EA	Environmental Assessment or Enforcement Action
ECP	Environmental Compliance Program
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act of 1973
EQ	Environmental Quality
FFCA	Federal Facility Compliance Act of 1992
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FinPlan	Financial Plan
FONSI	Finding of no significant impact
GIS	Geographical Information System
HABS/HAER	Historic American Building Survey/Historic American Engineering Record
HAP	Hazardous Air Pollutant
HW	Hazardous Waste
IAG	Interagency Agreement
INRMP	Integrated Natural Resources Management Plan
IWIMS-ES	Interim Work Information Management System – Environmental Subsystem
MA	Mission Area
MAJCOM	Major Command
MCL	Maximum Contaminant Level
MDEI	Mojave Desert Ecosystem Initiative
MILCON	Military Construction
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants

LISTING OF ABBREVIATIONS AND ACRONYMS

NHPA	National Historic Preservation Act
NPDWS	National Primary Drinking Water Standards
NSR	New Source Review
O&S	Operations and Services
OB/OD	Open Burning/Open Detonation
ORV	Off-Road Vehicle
P&F	Permits and Fees
PL	Public Law
POM	Program Objective Memorandum
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
R/R	Recordkeeping and Reporting
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SQG	Small quantity generator
SW	Solid Waste
SWMU	Solid Waste Management Unit
TCP	Traditional Cultural Properties
TSDF	Treatment, Storage, and Disposal Facilities
UIC	Underground Injection Control
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank

CHAPTER 1
INTRODUCTION

1.01 Purpose. The purpose of this document is to provide clear guidance to base-level programmers on how to program standard environmental compliance and conservation requirements into the ACES-PM module and the Microsoft Access EQ database. Currently, AFMC bases are required to submit all environmental compliance and conservation requirements to the Air Staff using the ACES-PM module. ACES-PM is the Air Force standard automated system for tracking validation and execution of environmental requirements. However, since ACES-PM is a new system in use as a test in AFMC only, AFMC needs additional capabilities to manage the complex AFMC environmental compliance and conservation program. Because of the newness of the ACES-PM module, AFMC will continue to use a separate validation and execution information management system using Microsoft Access as a database platform. This database improves AFMC's capability to manage the environmental compliance and conservation programs by creating an automated management information system with unlimited narrative space, providing additional project category data fields for advanced sorting capability, and enabling the generation of numerous standard and user-defined reports. This system has also been designed to be effective at tracking the movement of funds within the program, including funds committed and funds obligated. The flexibility enabled by the AFMC EQ database, along with its differences from the ACES-PM module, however, has created problems in consistently programming requirements in a standard format, mainly due to misinterpretation of the intent or purpose, or of the inter-relationship of the various data fields.

Another important management process used by base-level managers is the AFMC Business Approach. Requirements identified and tracked in the Business Approach will also require this same consistent and standard format, especially as the Business Approach evolves to an Activity-Based Management (ABM) and Costing (ABC) methodology. For the Compliance Product Line, this new ABM methodology will provide bases the means to plan and capture costs by activities and by the compliance site types identified in the Compliance through Pollution Prevention (CTP2) program. The program and project data generated by this methodology will provide base-level managers the detail needed to better build, evaluate, and defend out-year budgets and will provide a more detailed audit trail of current year performance. The correlation and eventual linkage of ACES-PM, EQ database, and Business Approach data will provide consistency and data integrity among all systems and simplify the planning, programming, budgeting, and reporting processes.

1.02 Approach. This document was prepared assuming that many of the environmental compliance and conservation requirements across AFMC are common to several, if not all bases within AFMC. This is especially true of annually recurring environmental requirements, but also many nonrecurring requirements, and other-than-annually recurring requirements, have common components and can be similarly standardized. The approach to preparing this document was for each Media Manager at HQ AFMC/CEVC to extract those components of their program that could be standardized and prepare a list of requirements. For each such requirement, the HQ AFMC/CEVC staff jointly developed applicable guidance and assumptions, and standards for Title, Class (Compliance Level), PEC, and EEIC, and other data fields required for the Access EQ database and ACES-PM module. This approach has been adopted by the Air Staff, which has recently (Spring 00) been working through several Tiger Teams to develop standardized project titles to be used across the Air Force. This document includes as much of the Air Staff Tiger Team results as possible prior to publication.

> *NOTE: It is recognized that not all requirements of every environmental medium can be standardized. There are and will always be environmental compliance and conservation requirements that are unique to certain installations and circumstances. This document does not attempt to address every possible environmental requirement. For such unique requirements, base-level programmers and/or program managers should consult with HQ AFMC Media Managers and Base Managers to determine appropriate titles, narratives, and other information required to properly enter a complete record into ACES-PM module and the EQ database.*

The standard titles, database structure, and narrative requirements presented in this document were modified to align as much as possible with current AF guidance. The following summarize the changes from the FINAL AFMC Standardized Environmental Programming Guidance, 20 Aug 99:

- The term *Business Area* has been changed to *Mission* Area in the AFMC command management approach. Consequently, the former I&S Business Area is now referred to as the I&S Mission Area. This is a change in terminology only, and will be reflected in all governing command policy directives.

- Project titles have been revised to more closely align with the standardized programming titles and criteria currently being developed by an Air Force Tiger Team – that effort has not been finalized as of the date of this guide. When the Tiger Team completes its effort, the Compliance and Conservation listings will be incorporated in this document as an appendix. Many project titles in this edition of the guide are the same as project titles in the previous edition of the guide. However, the media managers must understand there are some significant changes. Each media section includes the current approved titles for use in AFMC. A line by line comparison of the previous project titles with the current project titles is included in appendix A. A brief summary of changes is shown below:
  - ☐ Some previous titles have been deleted.
  - ☐ Some new titles are similar in name to previous titles with no change in scope.
  - ☐ Some new titles have been added.
  - ☐ Some previous similar titles have been consolidated into a single new title.
  - ☐ Some previous titles have been divided into several new separate titles.
  - ☐ Any questions on the applicability of the new project titles to the previous project titles should be addressed to the appropriate HQ AFMC/CEVC media manager.

- "I&S Medium" database fields for the Compliance Product Line have been aligned to more closely match the Compliance Site Types defined in AFI 32-7080 (FINAL*), Compliance Assurance and Pollution Prevention*, e.g.,:
  - ☐ The former "SDWA" I&S medium is changed to "Drinking Water"
  - ☐ The former "CWA" I&S medium is changed to "Wastewater"
  - ☐ "Other" has been added as a new I&S medium to account for compliance requirements at other than compliance sites
  - ☐ "Asbestos," formerly under "Air," is now included in under Toxics in "Other"
  - ☐ "Spill Response," formerly under "CWA," is now listed in "Other"
  - ☐ SPCC/FRP Plan Revision has been changed moved from CWA (now Wastewater) to AST
  - ☐ The I&S Media and Activities formerly classified as "Overhead" are now "Apportioned"

- ➘ Generally, these requirements support more than one I&S activity or medium, but costs have not been captured by activity or medium

- ➘ This change correlates with current Business Approach methodologies to trace and allocate costs

- Projects involving investments in Management Information Systems (MISs) will require breakouts of the cost basis of MIS systems or software.
  - ☐ An additional field will be added in the EQ database to highlight MIS related projects

- Contractor support for contractor-operated bases only will no longer be identified by a single project title.
  - ☐ These costs should be identified by specific line items in the respective I&S activities and I&S media
  - ☐ This change correlates with current Business Approach methodologies to capture all labor and contract costs by activity and compliance site types

- Nonrecurring projects in the Compliance Product Line will require breakout by I&S Activity.
  - ☐ The changes correlates with new Business Approach methodologies to trace and allocate costs

- "O&S" is now defined as "annually recurring expenses."
  - ☐ Formerly, "O&S" could apply to projects identified as requirements every 2 to 3 years—these "other than annual" requirements must now be classified as Class 1 or 2

- For vehicle leasing, the costs of fuel should now be included in the line item and broken out in the cost basis.

CHAPTER 2
PROGRAMMING STANDARDIZATION

This guidance is intended to provide information necessary for consistent programming of common environmental requirements in the EQ database**,** the ACES-PM module, and AFMC's Business Approach within the context of the AFMC I&S business strategy across the AFMC I&S environmental media.

2.00 I&S Environmental Media. The applicable I&S environmental media are listed below in Table 2.00-1. The Compliance Product Line I&S Media have been modified to more closely align with the Compliance Site Types defined in the Compliance through Pollution Prevention (CTP2) program and new Business Approach methodologies.

Table 2.00-1.

Program	I&S Medium	Description
Compliance	Apportioned	Nonmedia specific compliance requirements
	AST	Aboveground storage tank requirements (includes SPCC/FRP planning)
	Air	Air requirements (except Asbestos)
	Drinking Water	Safe Drinking Water Act requirements
	EPCRA	EPCRA requirements
	HazWaste	Hazardous waste management requirements
	Landfill	Solid waste landfill/processing requirements
	OB/OD	Open burn/open detonation requirements
	Pesticide	Pesticide management requirements
	RCRA-CA	RCRA corrective action program requirements
	UST	Underground storage tank requirements
	Wastewater	Clean Water Act requirements (except spill response)
	Other	Includes Spill Responses, Toxics, and other requirements not defined by specific compliance site type requirements
Conservation	Apportioned	Nonmedia specific conservation requirements
	Cultural	Cultural resources requirements
	EIAP	Environmental impact analysis requirements
	Natural	Natural resources requirement

2.01 Goals of Standardization. AFMC has several goals in publishing this programming guidance. Foremost is the need to strengthen the program, primarily in the ACES-PM module, against increased outside scrutiny. The Air Force environmental budget has declined dramatically since 1994 and every indication is that it will continue to decline and undergo increasing scrutiny for opportunities to reduce costs. AFMC needs to be able to defend its environmental requirements, and through programming easily recognizable, approved requirements we anticipate that our position will be strengthened. Also, as environmental staffs at both base level and MAJCOM-level are reduced, we will need to become more efficient at programming, validating, and managing environmental requirements. This guidance will attempt to make the following improvements to the current programming process:

- Strengthen ACES-PM database against increased Air Staff scrutiny
- Make programming requirements as objective as possible
- Reduce validation burden on base and MAJCOM program managers
- Make the EQ and ACES-PM databases easier to manage
- Provide data integrity and a consistent linkage with AFMC Business Approach data

CHAPTER 3
PROGRAMMING REQUIREMENTS

This chapter provides the specific instructions and guidance for base media managers (and others) to capture and standardize their programming requirements for their installation programs. This chapter has two parts. The first part is section 3.00, which provides some general information on ACES-PM, EQ Database, and approved project titles. This information is necessary for everyone who must identify, program, and enter Compliance and Conservation requirements into the programming system. The second part of the chapter includes the media sections (sections 3.01 through 3.17), which are stand-alone sections for use by base media or program managers. Each media has a separate section with its own specific descriptions, guidance, instructions, and example narratives. Consequently, each person who is responsible for programming requirements needs only to use the general section (3.00) in conjunction with the appropriate media section or sections.

3.00 General Requirements. The following sub-sections provide a summary of general requirements for programming in the ACES-PM module and the EQ database. However, when developing the requirements and specific line items that make up the installation's programs, please keep in mind the eligibility of certain areas for EC funding. For instance, DMAG, nonappropriated fund (NAF), medical, family housing, and tenant facility requirements may not be eligible for EC funding. In addition, some infrastructure work that may be identified as repairs to keep a system in compliance may only be eligible for Civil Engineering O&M Real Property Maintenance by Contract (RPMC) funding and not EC. In this case, the EM office should work closely with the CE to help CE advocate for these requirements, plus provide project information to your HQ AFMC/CEVC media manager to help advocate for the item at the MAJCOM level. If there is any question on whether a requirement is eligible for EC funding, the base media or program manager should discuss the requirement with the appropriate AFMC media manager before submitting it as an EC requirement.

3.00.01 ACES-PM Module. The ACES-PM module is the primary system for submitting our requirements to Air Staff. This module should be completed first - to obtain the project number -- with the EQ database completed later. The purpose of this paragraph is not to provide instructions on how to use ACES-PM, but information only to identify the required fields that are necessary to have a Compliance or Conservation Product Line project requirement validated by HQ AFMC/CEVC. The mandatory ACES-PM fields that must be populated for an Environmental project are:

- *From The Project Quick Add Screen*
  - ☐ Installation Name
  - ☐ Project Number
  - ☐ Project Title
  - ☐ Program Type – will be O&M, unless it is an environmental MILCON, in which case it will be MCP
  - ☐ Program FY
  - ☐ Funding – this is the EEIC
  - ☐ PA (Programmed amount) -- this is the funding requirement for the line item
  - ☐ Environmental (check block) – also click MILCON block if it is a MILCON project
  - ☐ Work Order (mandatory for all projects now, even Environmental nonfacility work)
  - ☐ Facility (input if applicable)
  - ☐ Requiring MAJCOM (in most cases AFMC)

- *From the Programming Tab*
  - ☐ Status
  - ☐ Funding Source (always O&M)
  - ☐ Type work -- use for facility project only -- if a facility project, use (EEICs 321 [MILCON], 521, 522, 524, 529) Note: Use only the 3 digit EEIC for the following:

    433 -- Vehicle Leasing
    502 – Printing
    553 – Any training (including HW, Air, for example.)
    609, 619, and 628 – supplies or equipment
    All others, use all 5 digits of EEIC.

- ☐ Local Status
- ☐ PEC

- *From the Project Text button*
  - ☐ Description
  - ☐ Justification -- include Citation and Impact if not provided
  - ☐ Remarks -- include Cost Basis

- *From the Project Manager's button*
  - ☐ Base project manager in environmental office: phone, fax, office symbol, E-mail address

- *From Supplemental Information Tab*
  - ☐ Enter base priority of 700 if you are recommending project for CTP2, otherwise nothing else is mandatory on this tab

- *From Environmental Tab*
  - ☐ Compliance Class (at this time for O&S use only 'OSM')
  - ☐ Statutory Authority
  - ☐ Pollutant Category
  - ☐ Progress Code
  - ☐ Compliance Date for Class 1 requirements
  - ☐ Environmental Site ID = Compliance Site number

The titles used in the ACES-PM module should be entered exactly as given in the following sections, 3.01-3.17. Titles are limited to 45 characters and/or spaces. Each of the other fields in ACES-PM is limited to the following number of characters and/or spaces:

- Description 1,016 characters
- Justification 725 characters
- Remarks 2,000 characters

The information entered into these fields in the records must provide sufficient detail to allow the HQ AFMC media managers to validate, support, and defend your requirements through the planning and budgeting process. The example narratives and the separate media sections in the rest of this chapter show the type of detail needed in the ACES-PM and EQ database records

ACES-PM is slightly different from A-106. Consequently, the ACES-PM data records must be entered slightly differently (from how A-106 records were entered) to correspond with the EQ Database. Specific instructions are:

- ACES-PM "Description" -- no change. Use ACES-PM Description text word for word in EQ Description.
- ACES-PM "Justification"-- split ACES-PM Justification into EQ fields for "Justification and Impact" and "Citation."
- ACES-PM "Remarks" -- use for EQ field for "Cost Basis."

ACES-PM does **not** require entries for the old A-106 fields for "Narrative", "Criteria", and "Compliance Status."

3.00.02 Microsoft Access EQ Database. The EQ database should be populated after completing the record in ACES-PM. The project titles should be entered exactly as given in the following sections and as used in ACES-PM. Key data fields should be filled in using selections from drop-down menus, where available, to ensure consistency. For narrative fields, while the EQ database does not limit the size of narrative fields, efforts should be taken to provide only the information necessary to validate a project using short, concise narratives, and avoiding any

unnecessary or extraneous information. The narrative fields should be copied and pasted from ACES-PM in the following manner:

- EQ "Description" -- use same text as entered in ACES-PM "Description."
- EQ "Cost Basis" -- use appropriate section of text entered in ACES-PM "Remarks."
- EQ "Justification and Impact" -- use appropriate section of text entered in ACES-PM "Justification."
- EQ "Citation" -- use appropriate section of text entered in ACES-PM "Justification."

The other fields should be completed according to the instructions in the separate media sections 3.01-3.17.

3.00.03 Current Approved Project Listing. Table 3.00-1(often referred to as the Master Matrix) lists all project titles currently approved for use in programming environmental compliance and conservation requirements in the ACES-PM Module and the EQ Database. The Compliance Product Line I&S Media and Activities have been modified to more closely align with the Compliance Site Types defined in the Compliance through Pollution Prevention (CTP2) program and new Business Approach methodologies.

Table 3.00-1. Master Matrix		Approved Title	Class	Page
I&S Media	I&S Activity			
EC Nonmedia	Apportioned	Printing, EC Office	O&S	16
EC Nonmedia	Apportioned	Publications, EC Office	O&S	17
EC Nonmedia	Apportioned	Supplies, EC Office	O&S	18
EC Nonmedia	Apportioned	TDY, EC Office	O&S	19
EC Nonmedia	Apportioned	Vehicle Leasing, EC Office	O&S	20
EC Nonmedia	Assessments/Audits	ECAMP, Internal Support	O&S	21
EC Nonmedia	Training	Training, EC Office	O&S	22
EC Nonmedia	Training	Training, ECAMP	O&S	23
AST	Plan Maintenance	Plan Review/Revision, SPCC/FRP	1	27
Air	Permit Maintenance	P&F, Air	O&S	91
Air	Permit Maintenance	P&F, Air, Permit Maint	O&S	93
Air	Permit Maintenance	P&F, Title V	O&S	92
Air	Permit Maintenance	P&F, Title V, Permit Maint	O&S	94
Air	Plan Maintenance	Plan Update, RMP, _____	O&S	83
Air	Plan Maintenance	Plan Update, SIP, _____	O&S	112
Air	Plan Maintenance	Plan Update, TCM, _____	O&S	119
Air	Recordkeeping/Reporting	Inventory, AEI Data Mgt	O&S	53
Air	Recordkeeping/Reporting	Inventory, AEI, State, Data Mgt	O&S	55
Air	Recordkeeping/Reporting	Recordkeeping, I&M (SEC 118 C&D)	O&S	121
Air	Recordkeeping/Reporting	Recordkeeping,, NESHAP, _____	O&S	69
Air	Recordkeeping/Reporting	Recordkeeping,, Other, ODS	O&S	109
Air	Recordkeeping/Reporting	Recordkeeping,, Other, Permit, _____	O&S	89
Air	Recordkeeping/Reporting	Recordkeeping, Other, TCM_____	O&S	120
Air	Recordkeeping/Reporting	Recordkeeping, RMP	O&S	81
Air	Recordkeeping/Reporting	Recordkeeping, SIP	O&S	113
Air	Recordkeeping/Reporting	Recordkeeping, State, HAP, _____	O&S	73
Air	Recordkeeping/Reporting	Recordkeeping, Title V	O&S	90
Air	Recordkeeping/Reporting	Recordkeeping, Title VI	O&S	122
Air	SAM	SAM, Air, Conformity Analysis	O&S	95

Table 3.00-1. Master Matrix		Approved Title	Class	Page
I&S Media	I&S Activity			
Air	SAM	SAM, Air, Conformity Compliance	O&S	98
Air	SAM	SAM, Air, Existing Source Testing	O&S	101
Air	SAM	SAM, Air, NESHAP, _____	O&S	70
Air	SAM	SAM, Air, Ozone	O&S	62
Air	SAM	SAM, Air, PM2.5	O&S	66
Air	SAM	SAM, Air, SIP	O&S	103
Air	SAM	SAM, Air, State HAP, _____	O&S	74
Air	SAM	SAM, Air, Title V	O&S	104
Air	SAM	SAM, Air, TTU	O&S	105
Air	SAM	Supplies, SAM, CAA	O&S	127
Air	Training	Training, Air Program	O&S	99
Air	Training	Training, Air Source Operator	O&S	100
Air	Audits/Assessments	CAA Cost of Compliance Assessment	1	107
Air	Audits/Assessments	Dispersion & Impact Modeling	1	117
Air	Audits/Assessments	Emission Assessment, _____	1	108
Air	Audits/Assessments	Emission Assessment, Energy	1	109
Air	Audits/Assessments	NESHAP Impact Assessment, _____	1	67
Air	Audits/Assessments	NESHAP Risk Assessment, _____	1	75
Air	Audits/Assessments	NESHAP, (Implementation)	1	68
Air	Audits/Assessments	Ozone NAAQS Impact Assessment	1	59
Air	Audits/Assessments	PM2.5 NAAQS Impact Assessment	1	63
Air	Audits/Assessments	Regulatory Tracking & Support	1	110
Air	Audits/Assessments	SIP, AQ Feasibility Assessment, _____	1	123
Air	Audits/Assessments	State HAP Assessment, _____	1	71
Air	Audits/Assessments	Urban Toxics, Assessment	1	76
Air	Permit Maintenance	Abatement/Controls, _____	1	111
Air	Permit Maintenance	Permit Assessment, _____	1	85
Air	Permit Maintenance	Permit Mod, _____	1	88
Air	Permit Maintenance	Permit Prep, _____	1	86
Air	Permit Maintenance	Permit Renewal(s) _____	1	87
Air	Permit Maintenance	SIP,_____	1	125
Air	Permit Maintenance	SIP, (Ozone Implementation Title)	1	60
Air	Permit Maintenance	SIP, (PM2.5 Implementation Title)	1	64
Air	Permit Maintenance	Urban Toxics, _(Implementation)____	1	77
Air	Plan Maintenance	Plan Revision, RMP_____	1	82
Air	Plan Maintenance	Plan Revision, SIP Compl Plan	1	115
Air	Plan Maintenance	Plan Revision, TCM	1	116
Air	Plan Maintenance	Plan, RMP, _____	1	80
Air	Plan Maintenance	Plan, SIP Compl Plan	1	114
Air	Plan Maintenance	Plan, TCM	1	118
Air	Plan Maintenance	RMP Assessment/ Development	1	79
Air	Plan Maintenance	RMP Process Compliance Alternative	1	84
Air	Recordkeeping/Reporting	AEI Data Collection	1	54
Air	Recordkeeping/Reporting	AEI, _____	1	56
Air	Recordkeeping/Reporting	AEI Data Migration to APIMS *(HQ only)*	1	57

Table 3.00-1. Master Matrix		Approved Title	Class	Page
I&S Media	I&S Activity			
Air	Recordkeeping/Reporting	APIMS Maint, Local Support	1	58
Air	SAM	Conformity Determination	1	96
Air	SAM	Conformity, _____	1	97
Air	SAM	Equipment, SAM, _____	1	102
Air	SAM	Ozone Monitoring Equipment	1	61
Air	SAM	PM 2.5 Monitoring Equipment	1	65
Air	SAM	State HAP, (Implementation)	1	72
Air	SAM	Testing, Source Demonstration	1	106
Drinking Water	Permit Maintenance	P&F, Drinking Water	O&S	133
Drinking Water	SAM	SAM, Drinking Water	O&S	134
Drinking Water	SAM	Supplies, SAM, SDWA	O&S	135
Drinking Water	Audits/Assessments	Drinking Water System Evaluation	1	136
Drinking Water	Audits/Assessments	Survey Backflow Preventers	1	138
Drinking Water	Permit Maintenance	Install Backflow Preventers	1	139
Drinking Water	Permit Maintenance	P&F, Drinking Water, Permit Application	1	140
Drinking Water	Permit Maintenance	Repair Drinking Water Systems	1	141
Drinking Water	Plan Maintenance	Plan, Source Water Protection	1	142
EPCRA	Recordkeeping/Reporting	Reports, EPCRA Form R	O&S	145
EPCRA	Training	Training, EPCRA	O&S	146
EPCRA	Recordkeeping/Reporting	EPCRA Report Setup	1	147
HazWaste	Assessments/Audits	HW EPA Reimbursement	O&S	154
HazWaste	Disposal Operations	Disposal, Other Regulated Waste	O&S	155
HazWaste	Disposal Operations	Disposal, RCRA Regulated HW	O&S	156
HazWaste	Disposal Operations	HW Contract Support	O&S	157
HazWaste	Disposal Operations	Recycling, RCRA Regulated HW	O&S	158
HazWaste	Disposal Operations	Supplies, HW	O&S	159
HazWaste	Permit Maintenance	P&F, HW Generation	O&S	160
HazWaste	Permit Maintenance	P&F, HW TSDF-CSF	O&S	161
HazWaste	Plan Maintenance	Plan Update, HW Management	O&S	162
HazWaste	Recordkeeping/Reporting	Reports, HW	O&S	163
HazWaste	SAM	SAM, HW Characterization	O&S	164
HazWaste	SAM	SAM, HW TSDF—CSF Groundwater	O&S	165
HazWaste	Training	Training, HW	O&S	166

Table 3.00-1. Master Matrix		Approved Title	Class	Page
I&S Media	I&S Activity			
HazWaste	Disposal Operations	Equipment, HW	1	167
HazWaste	Permit Maintenance	Permit Mod, HW TSD-CSF	1	168
HazWaste	Permit Maintenance	Permit Prep, HW TSD-CSF	1	169
HazWaste	Plan Maintenance	Plan, HW Management	1	170
Landfill	Permit Maintenance	P&F, Solid Waste/Landfill	O&S	201
Landfill	SAM	SAM, SW Landfill Groundwater	O&S	202
Landfill	Permit Maintenance	Permit Mod, SW	1	203
Landfill	Permit Maintenance	Permit Prep, SW	1	204
OB/OD	Permit Maintenance	P&F, HW TSDF-TTU	O&S	173
OB/OD	SAM	SAM, HW TSDF – TTU Groundwater	O&S	174
OB/OD	Permit Maintenance	Permit Mod, HW TSDF-TTU	1	175
OB/OD	Permit Maintenance	Permit Prep, HW TSDF-TTU	1	176
RCRA-CA	Permit Maintenance	LTO, Final LTO, SWMU_____	O&S	184
RCRA-CA	Permit Maintenance	P&F, RCRA-CA	O&S	185
RCRA-CA	SAM	SAM, Final LTM, SWMU _____	O&S	186
RCRA-CA	SAM	SAM, IRA LTM, SWMU _____	O&S	187
RCRA-CA	Audits/Assessments	PSA Assessment, SWMU _____	1	188
RCRA-CA	Permit Maintenance	CMD Design, RCRA-CA, SWMU _____	1	189
RCRA-CA	Permit Maintenance	CMI Action, RCRA-CA, SWMU _____	1	190
RCRA-CA	Permit Maintenance	CMS Alternatives, SWMU _____	1	191
RCRA-CA	Permit Maintenance	Interim Action, SWMU _____	1	192
RCRA-CA	Permit Maintenance	LTO, IRA LTO, SWMU ____	1	193
RCRA-CA	Permit Maintenance	Permit Mod, RCRA-CA	1	194
RCRA-CA	Plan Maintenance	Plan, RCRA-CA	1	195
RCRA-CA	Recordkeeping/Reporting	Report, RCRA-CA	1	196
RCRA-CA	SAM	RFI Investigation, SWMU _____	1	197
UST	Permit Maintenance	P&F, USTs	O&S	207
UST	SAM	SAM, Leak Detection	O&S	208
UST	SAM	SAM, UST LTM	O&S	209
UST	Audits/Assessments	UST 5-Year Integrity Test	1	210
UST	Audits/Assessments	UST Site Investigation	1	211

Table 3.00-1. Master Matrix		Approved Title	Class	Page
I&S Media	I&S Activity			
UST	Permit Maintenance	UST Corrective Action Installation	1	212
UST	Permit Maintenance	UST Site Closure	1	213
Wastewater	Audits/Assessments	Storm Water Cert. Inspection	O&S	220
Wastewater	Permit Maintenance	P&F, Storm Water	O&S	221
Wastewater	Permit Maintenance	P&F, Wastewater	O&S	222
Wastewater	SAM	SAM, Sludge	O&S	223
Wastewater	SAM	SAM, Storm Water	O&S	224
Wastewater	SAM	SAM, Wastewater	O&S	225
Wastewater	SAM	Supplies, SAM, CWA	O&S	226
Wastewater	Training	Training, Storm Water	O&S	228
Wastewater	Audits/Assessments	Inflow & Infiltration Survey	1	232
Wastewater	Audits/Assessments	O/W Separator Survey	1	229
Wastewater	Audits/Assessments	Storm Water Cross Conn Survey	1	234
Wastewater	Permit Maintenance	Consolidate O/W Separators	1	230
Wastewater	Permit Maintenance	Elim Storm Water Cross Conn	1	235
Wastewater	Permit Maintenance	Permit Renewal, Wastewater	1	238
Wastewater	Permit Maintenance	Repair Wastewater System	1	233
Wastewater	Permit Maintenance	Replace O/W Separators	1	231
Wastewater	Permit Maintenance	Storm Water Retention Basin	1	236
Wastewater	Plan Maintenance	Plan Revision, Storm Water P2	1	237
Other	Permit Maintenance	Supplies, Spill Response	O&S	241
Other	SAM	SAM, EC Other, _____	O&S	242
Other	SAM	SAM, Toxics	O&S	243
Other	Training	Training, Emergency Response	O&S	244
CN Nonmedia	Apportioned	Equipment, CN Activities	O&S	248
CN Nonmedia	Apportioned	Equipment Maint, CN Support	O&S	249
CN Nonmedia	Apportioned	Printing, CN Office	O&S	250
CN Nonmedia	Apportioned	Publications, CN Office	O&S	251
CN Nonmedia	Apportioned	Supplies, CN Office	O&S	252
CN Nonmedia	Apportioned	TDY, CN Office	O&S	253
CN Nonmedia	Apportioned	Vehicle Leasing, CN Office	O&S	254
CN Nonmedia	Apportioned	Equipment, CN Office	1	256
CN Nonmedia	Training	Training, CN Office	O&S	255
Cultural	Apportioned	Public Awareness, Cultural	O&S	263
Cultural	Consultation	Consultation, American Indian	O&S	264
Cultural	Consultation	Consultation, Section 106	O&S	266

Table 3.00-1. Master Matrix		Approved Title	Class	Page
I&S Media	I&S Activity			
Cultural	Mitigating Sites	Curation, Base	O&S	268
Cultural	Mitigating Sites	Curation, Museum	O&S	269
Cultural	Mitigating Sites	Monitor, Historic Properties	O&S	271
Cultural	Updating Inventories	Evaluation, Archaeological Site	1	272
Cultural	Updating Inventories	Inventory, Archaeological	1	273
Cultural	Updating Inventories	Inventory, Building	1	274
Cultural	Mitigating Sites	National Register Nomination	1	275
Cultural	Updating Plans	Plan Revision, CRMP	1	276
Cultural	Updating Plans	Plan, CRMP	1	277
Cultural	Mitigating Sites	Protect, Historic Properties	1	278
EIAP	EIAP	EA/EIS-Range & Test Facilities	1	283
EIAP	EIAP	NEPA-EA/EIS	1	285
EIAP	EIAP	NEPA-_____	1	286
Natural	Apportioned	P&F, Wetlands	O&S	291
Natural	Consultation	Consultation, ESA Section 7	O&S	292
Natural	Mitigating Sites	Mgt, Habitat, (List Habitat Type)	O&S	293
Natural	Mitigating Sites	Mgt, Invasive Species Control	O&S	294
Natural	Mitigating Sites	Mgt, Native Ecosystems	O&S	295
Natural	Mitigating Sites	Mgt, Species (List Species)	O&S	296
Natural	Mitigating Sites	Mgt, Wetlands/Floodplain	O&S	297
Natural	Mitigating Sites	Monitor, Species, (List Species)	O&S	298
Natural	Mitigating Sites	Monitor, Wetlands	O&S	300
Natural	Mitigating Sites	Monitor, Habitat (List Habitat Type)	O&S	301
Natural	Mitigating Sites	Public Awareness, Natural	O&S	302
Natural	Consultation	Biological Assessments, ESA	1	303
Natural	Updating inventories	Inventory, Baseline NR	1	304
Natural	Updating inventories	Inventory, T&E Species	1	305
Natural	Updating inventories	Inventory, Wetlands	1	306
Natural	Updating Plans	Plan Revision, INRMP	1	307
Natural	Updating Plans	Plan Revision, INRMP Component	1	308
Natural	Mitigating Sites	Protect/Restore, T&E Species	1	310
Natural	Mitigating Sites	Protect/Restore, Wetlands	1	312
Natural	Mitigating Sites	Protect/Restore, Native Ecosystems	1	314

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SECTION 3.15
CULTURAL RESOURCES MANAGEMENT REQUIREMENTS

Note: This section maintains the same page numbers as the original, full SPG.

3.15.01 Introduction. Cultural resources management requirements include those requirements that pertain to conservation activities categorized under the **Cultural** I&S medium, as defined in the Product Descriptor Sheet for the Environmental Conservation Product Line within the I&S Mission Area Plan. The list of approved project titles was determined based upon requirements currently included in the ACES-PM Module. These titles are listed in Table 3.15-1. Guidance for programming these projects and example narratives for each approved project title in the ACES-PM module and the EQ database are also provided in this section. Contractor support for cultural resources management activities at contractor-operated bases should be programmed using these specific project titles. The project narratives should describe the type of contractor support provided and detail costs in the cost basis section of the narrative.

3.15.02 Standard Project Titles. Table 3.15-1 contains the standard project titles to be used for cultural resources requirements for all Classes (Compliance Levels) of work, as indicated:

Table 3.15-1.

I&S Activity	Approved Title	Class	Page
Apportioned	Public Awareness, Cultural	O&S	263
Consultation	Consultation, American Indian	O&S	264
Consultation	Consultation, Section 106	O&S	266
Mitigating Sites	Curation, Base	O&S	268
Mitigating Sites	Curation, Museum	O&S	269
Mitigating Sites	Monitor, Historic Properties	O&S	271
Updating Inventories	Evaluation, Archaeological Site	1	272
Updating Inventories	Inventory, Archaeological	1	273
Updating Inventories	Inventory, Building	1	274
Mitigating Sites	National Register Nomination	1	275
Updating Plans	Plan Revision, CRMP	1	276
Updating Plans	Plan, CRMP	1	277
Mitigating Sites	Protect, Historic Properties	1	278

Project titles and classes should be entered exactly as shown in Table 3.15-1, and should be identical in ACES-PM module and the EQ database. Any deviations, including misspellings, from the approved titles may result in invalidation of requirements in the ACES-PM module and the EQ database.

(Note: Due to unique circumstances associated with certain O&S and Class 1 requirements that may be necessary to meet cultural resources management standards, you may have a requirement that does not fit into an existing standard project title. In such cases, please contact your HQ AFMC base manager to determine an appropriate project title. If necessary, this section may be modified to include additional standard project titles and formats.)

3.15.03 Guidance and Assumptions. The following general guidance is given for cultural resources requirements:

Public Awareness, Cultural:
This project title provides for a program to increase public awareness of the significance of cultural resources located on public lands as required by the Archaeological Resources Protection Act (ARPA). Federal agencies must implement education and public awareness programs and train all installation personnel in cultural resources stewardship at a level equal with their responsibilities. This category covers the expenses of public

awareness and education of base personnel with such items as videos, brochures, popular publications, and exhibits.

If a specific, one-time, large requirement exists for this area, a *Class 1 project* should be programmed with the title:

Public Awareness, Cultural,___**

Insert appropriate, specific discriminating term in project title for * to identify the Class 1 requirement (for example, HQ Display). Include specific justification and cost basis in the Class 1 project narrative.

Consultation, American Indian:
This project title provides for consultation and government-to-government relations with recognized American Indian tribes as required by the American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, and the DoD Native American Policy Principles. Federal agencies must consult with recognized American Indian tribes if their action(s) have the potential to affect protected tribal resources (such as traditional cultural properties, sacred sites, or American Indian burials), tribal rights, or Indian lands.

If a specific, one-time, large requirement exists for this area, a *Class 1 project* should be programmed with the title:

Consultation, American Indian,___**

Insert appropriate, specific discriminating term in project title for * to identify the Class 1 requirement (for example, Eastern Boundary Sites). Include specific justification and cost basis in the Class 1 project narrative.

Consultation, Section 106:
This project title provides for complying with, and consultations with regulatory agencies as required by, section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). This category covers the expenses of operating a cultural resources program beyond what can be conducted in-house. The section 106 requirements are defined as those that are in direct support of the base mission and which must be coordinated with a regulator, such as EIAP document review, archaeological surveys, and site and building assessments. It does not apply to payroll, supplies, or TDY. Federal agencies must take into account the affect of their action(s) on cultural resources, and conduct projects to ensure documentation and preservation of these resources. They must also consult with the State Historic Preservation Officer (SHPO), and in some cases the Advisory Council on Historic Preservation (ACHP), if their action(s) have the potential to affect any property included in or eligible for inclusion to the National Register of Historic Places (NRHP).

If a specific, one-time, large requirement exists for this area, a *Class 1 project* should be programmed with the title:

Consultation, Section 106,___**

Insert appropriate, specific discriminating term in project title for * to identify the Class 1 requirement (for example, South Boundary Site Assessment). Include specific justification and cost basis in the Class 1 project narrative.

Curation, Base:
This project title provides for the proper curation in an authorized EM-administered facility of federally-owned cultural materials and associated records as required by 36 CFR Part 79 *Curation of Federally-Owned and Administered Archaeological Collections.* Federal agencies must provide for the proper curation of their collections in repositories meeting the standards set forth in the CFR. Funding must be necessary to pay annual operating fees or costs to curate cultural resources collections in a base-administered museum or curation facility that meets the requirements set forth in the regulations. This does not include the initial inventory of collections or curation of items in storage or file cabinets in a nonregulated facility on base.

If a specific, one-time, large requirement exists for this area, a *Class 1 project* should be programmed with the title:

Curation, Base,___**

Insert appropriate, specific discriminating term in project title for * to identify the Class 1 requirement (for example, Artifact Inventory). Include specific justification and cost basis in the Class 1 project narrative.

Curation, Museum:
This project title provides for the proper curation in an authorized private repository of federally-owned cultural materials and associated records as required by 36 CFR Part 79 *Curation of Federally-Owned and Administered Archaeological Collections.* Federal agencies must provide for the proper curation of their collections in repositories meeting the standards set forth in the CFR. Funding must be necessary to pay annual fees or costs associated with the curation of cultural resources collections in a private Museum or Curation facility that meets the requirements set forth in the regulations. This does not include the initial inventory of collections. The base should have an agreement from a repository that includes a list of collections and records and an annual fee or operating cost to maintain and curate these resources. A copy of this agreement shall be in the CRMP and on file at HQ AFMC/CEVC. The description should include a statement as to the extent of the collections (how many cubic feet of collections and linear feet of records) and the name of the repository that will house the collections. There should also be mention of the type of agreement (PA, MOA, for example) that is in place. The base should have an accurate inventory of their collections prior to releasing them to the repository.

This project title also provides for temporary housing of artifacts in a nonregulated facility on the base if there is an ongoing effort to initiate an agreement with a private repository. Funding is provided to locate and recover collections housed in various facilities, inventory the collections, and prepare them for final curation in the private repository.

If a specific, one-time, large requirement exists for this area, a *Class 1 project* should be programmed with the title:

Curation, Museum,___**

Insert appropriate, specific discriminating term in project title for * to identify the Class 1 requirement (for example, Aritifact Recovery). Include specific justification and cost basis in the Class 1 project narrative.

Monitor, Historic Properties:
This project title provides for the recurring protection and preservation of archaeological sites and historic buildings with impacts from natural and cultural agents as required by section 110 of the NHPA and ARPA. It can consist of on-going protection activities such as law enforcement monitoring and remote sensing for the same sites or buildings each year. Federal agencies must ensure that historic properties on their installations are protected and preserved for future generations.

Evaluation, Archaeological Site:
This project title provides for the National Register of Historic Places eligibility evaluation (Phase II inventory) of archaeological sites as required by section 110 of the NHPA. Federal agencies must determine the eligibility of all archaeological sites so that those eligible for listing on the NRHP can be protected and maintained. The preparation of National Register nomination packages should not be included in this category.

If more than one such project exists for this area in a FY, a separate Class 1 project should be programmed with the title:

Evaluation, Archaeological Site,___**

Insert appropriate, specific discriminating term in project title for * to identify the specific Class 1 requirement (for example, Southern Mound Area). Include specific justification and cost basis in the Class 1 project narrative.

Inventory, Archaeological:
This project title provides for the initial inventory (Phase I) of base-administered acreage, for the purpose of locating and documenting archaeological sites, necessary to complete the base-wide survey required by section 110 of the NHPA (and not covered under section 106). These are nonrecurring projects that are valid only until the entire base inventory has been completed. These inventories should consist of complete (100%) surveys (which varies by state). A complete (100%) survey is defined as an inventory that is considered to have located all cultural resources within the boundaries of the project, and no further Phase I survey work will be necessary (including section 106 surveys). In addition, these projects should result in the NRHP eligibility determinations for all documented archaeological sites (but does not include preparation of NRHP nomination packages). Federal agencies must ensure that all potential historic properties on an installation are located and documented so that they can be adequately protected and considered in the base planning process.

If more than one such project exists for this area in a FY, a separate Class 1 project should be programmed with the title:
Inventory, Archaeological,____*____

Insert appropriate, specific discriminating term in project title for * to identify the specific Class 1 requirement (for example, Blue Ash Range section). Include specific justification and cost basis in the Class 1 project narrative.

Inventory, Building:
This project title provides for the initial inventory/documentation of architectural properties (buildings and structures) necessary to complete the base-wide inventory as required by section 110 of the NHPA (and not covered under section 106). These are nonrecurring projects that are valid until all buildings on the base constructed prior to 1990 have been completed. These inventories should consist of Historic American Building Survey/Historic American Engineering Record-level documentation (Level IV documentation is the minimum requirement) and NRHP eligibility determinations for all buildings 50 years old and older. A strategy should also exist for the inventory and documentation of Cold War facilities that are less than 50 years old. Federal agencies must ensure that all potential historic properties on an installation are located and documented so that they can be adequately protected and considered in the base planning process. The preparation of National Register nominations should not be included with the inventory. These projects should be programmed in phases approximately every 3 years to ensure the buildings that are 48 to 50 years old at the time of the survey are inventoried to comply with the requirements. For instance, in FY 2003, those buildings that were constructed in 1953-1955 should be inventoried. An additional project should be phased for FY 2006 to cover those buildings built in 1956 - 1959.

National Register Nomination:
This project title provides for the preparation and coordination of NRHP nomination packages for historic properties as required by section 110 of the NRHP. Federal agencies must inventory all properties under their jurisdiction and nominate to the NRHP those that may qualify. Because the Air Force has waived the 24-month rule for nominating properties, it is important that there is a solid justification for a project in this category. The primary justification should explain why it is important that the property(s) be nominated, what benefit this is to the Air Force, and why it is a necessary task for the current year. Since federal agencies must protect all eligible or potentially eligible properties, why is it necessary to put this particular property on the NRHP?

Plan Revision, CRMP:
This project title provides for the 5-year revision of the installation CRMP as required by AFI 32-7065. Annual updates must be completed in-house and are not included in this category. The requirement should be programmed in the fourth year of the current plan to insure that the revised plan will be completed before the current plan expires. Federal agencies must ensure that their CRMP is up-to-date so that the program stays in compliance with the regulations.

Plan, CRMP:
This project title provided for the initial preparation of the installation CRMP as required by AFI 32-7065. The CRMP was designed so that annual updates can be accomplished in-house. Federal agencies must have a CRMP to establish cultural resources program requirements and guidelines. This project title should not be in use after FY00 since all CRMPs should be completed. Any installation that plans to use this project title must contact their base media manager to explain why it needs to be used or to determine an appropriate alternate title.

Protect, Historic Properties:
This project title provides for the protection and preservation of archaeological sites and historic buildings that have been identified as having impacts from natural and cultural agents, as required by section 110 of the NHPA and ARPA. It can consist of nonrecurring events such as damage assessments, stabilization (such as backfilling potholes and erosion control), installation of signs and fences. Federal agencies must ensure that historic properties on their installations are protected and preserved for future generations. Building maintenance is normally not a valid funding requirement and must be justified as an emergency situation to be considered. For that reason, the justifications for building protection and preservation must be very strong and explain why it is considered emergency stabilization, and why the base CE won't/can't do the work.

If more than one such project exists for this area in a FY, a separate Class 1 project should be programmed with the title:

Protect, Historic Property,___*___

Insert appropriate, specific discriminating term in project title for * to identify the specific Class 1 requirement (for example, Ranch House Fencing). Include specific justification and cost basis in the Class 1 project narrative.

Additionally, if a situation, agency agreement, or other regulatory requirement specifies an on-going, annual action, then this project title can also be programmed as an O&S project. As an O&S project, the justification must be specific as to why it is an *annually recurring* expense with the cost basis, justification, and requirement described in detail in the project narrative. The justification must be very strong and tied to actual requirements to justify as an O&S project.

3.15.04 Example Narratives. The following example narrative pages contain *example* project narratives with all data fields coded as required to create an acceptable project in the ACES-PM module and the EQ database, as indicated. There are two types of data fields in the example narratives: those that are shown for *illustration purposes only*, and those that *must be completed exactly as shown* in the examples. The following fields of the example narratives were completed for illustration purposes only:

ACES-PM Module Data Field	EQ Database Field	Example Narrative
Description	Description	Illustration only
Justification	Citation/Justification & Impact	Illustration only
Remarks	Cost Basis	Illustration only

The above data fields are designed to be flexible in order to provide maximum freedom to individual base-level programmers to enter the installation-specific, pertinent information describing the requirement being programmed.

The remaining data fields, as shown below, should be entered *exactly* as shown in the following example project narratives. These data fields need to be *exactly* as shown in the example narratives to meet Air Staff requirements, defend your project requirements, and assist the I&S media manager to validate and defend your projects. Failure to enter the correct information in these data fields may result in invalidation of requirements in the ACES-PM module and the EQ database, requiring you to provide additional information, correct the incorrect information, and delaying your programs.

ACES-PM Module Data Field	EQ Database Field	Example Narrative
Title	Title	Exactly as shown
Program Element Code (PEC)	PEC	Exactly as shown
Element of Expense Investment Code (EEIC)	EEIC	Exactly as shown
Compliance Class		Exactly as shown
Statutory Authority		Exactly as shown
Pollutant Category		Exactly as shown
	Class	Exactly as shown
	Media	Exactly as shown
	I&S Activity	Exactly as shown
	I&S Media	Exactly as shown
	Category	Exactly as shown

Cultural Resources Requirements

Title: Public Awareness, Cultural

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: OSM

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HACR

EQ Class: O&S

EQ Media: HP

EQ I&S Activity: Apportioned

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: Describe the types of public relations projects planned and how such projects will educate base personnel/public about cultural resources.
(Example) Provides for public relations projects to educate base personnel/public about cultural resources. Includes production of brochures and an information video describing cultural resources laws and base cultural resources, which is provided at the base orientation for new employees. A wayside exhibit, consisting of interpretive signs and brochures, will be established at an archaeological/historic site providing a history of the resource and explaining why it should not be disturbed.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) The Archaeological Resources Protection Act 10 (c) requires federal land managers to establish a program to increase public awareness of the significance of cultural resources located on public lands and the need to protect them. AFI 32-7065 indicates that to protect cultural resources, installations should "implement education and public awareness programs." Section 9.1 also says that we must "train all Air Force personnel in cultural resources stewardship at a level commensurate with their responsibilities." This should include incorporating basic information on cultural resources into newcomer orientation briefings and informing individuals living in historic quarters of the significance of the building and its special management needs.

(Insert appropriate text in EQ Justification & Impact): Justify the necessity of the public relations projects and the planned impact on cultural resources—how it will protect the base from cultural resources violations. Producing a popular archaeological report for recreational reading, and not to educate the public about resource protection, is not a valid project. If funding is requested for items such as brochures or videos that were funded in the previous year, explain the need to repeat the process. (Example) These public relations projects are needed because _____. Informing base personnel of the importance of cultural resources will protect these resources from impact based on lack of knowledge. Brochures and videos are reprinted each year because storage is not available for large numbers of these items.

ACES-PM Remarks (insert in EQ Cost Basis): Provide a breakdown of costs by line item.
(Example)
10,000 brochures @ $___ each = $____
video production (100 videos @ $___ per video) = $____
TOTAL = $ _____

Cultural Resources Requirements

Title: Consultation, American Indian

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: OSM

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HACR

EQ Class: O&S

EQ Media: HP

EQ I&S Activity: Consultation

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) This project supports government-to-government relations with recognized American Indian tribes beyond those covered under section 106, and ethnographic surveys to identify American Indian tribes with a legal interest/affiliation with cultural resources/Traditional Cultural Properties (TCPs) that are, or may be encountered, on lands owned by the USAF. Support will include [consulting with American Indians and gathering data to identify TCP and sacred sites on the installation and analysis and report writing for approximately ___ consultations during FY__]; or [consulting with ___ American Indian tribes and gathering data to identify which recognized tribes have an interest in property administered by Anybase AFB]; or [gathering data and analysis and report writing for NAGPRA issues]. The American Indian tribes requiring these consultations are: _____.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) The American Indian Religious Freedom Act (42 U.S.C. 996) requires that the Air Force recognize the rights of American Indians to access their religious sites and objects on lands under Air Force control. The Native American Graves Protection and Repatriation Act of 1990 (Public Law 1001-601; 25 USC 3001-3013) establishes American Indian ownership of human remains and associated funerary objects discovered on federal lands and requires consultation with the appropriate American Indian tribe before these objects can be removed or disturbed. The 1994 Presidential Memorandum *Government-to-Government Relations with Native American Tribal Governments* directs federal agency to initiate relationships with federally recognized American Indian tribes. The 1998 DoD *Native American Policy Principles* promote government-to-government relations between DoD installations and local American Indian tribes.

(Insert appropriate text in EQ Justification & Impact): (Example) It is important to consult with these American Indian tribes in the current year because _____. These actions are necessary and exceed section 106 requirements in the following manner: _____. This level of consultation is necessary beyond sending a letter to the tribes each year because the Chumash require a base visit each year to review proposed undertakings that may impact their sacred sites. Failure to complete the required consultations in a timely manner can lead to several consequences. Lack of solid data and analysis may delay the consultation process with all appropriate American Indian tribes, which in turn may directly delay the mission or delay the installation's National Environmental Policy Act (NEPA) process. Private and American Indian individuals or organizations may pursue legal avenues if the process is not followed or the resulting actions or mitigations appear inadequate in their judgement. These consultations are mission critical to allow continued operations.

ACES-PM Remarks (insert in EQ Cost Basis): List number of consultations anticipated and estimated cost per consultation. Break out cost for data gathering, meeting attendance (re: payment for travel by American Indian tribal members for consultation or to attend meetings), consultants (such as bringing an American Indian

consultant to the base during a site excavation), analysis, and reports (background reports, consultation documents, for example).

(Example) Funding meetings	$_____	
American Indian travel		$_____
Consultants		$_____
Analysis/Reports		$_____
TOTAL		$_____

Cultural Resources Requirements

Title: Consultation, Section 106

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: OSM

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HACR

EQ Class: O&S

EQ Media: HP

EQ I&S Activity: Consultation

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) This project supports the section 106 process and associated consultation with the SHPO. All actions supported by this project are the result of a proposed undertaking on the base. The section 106 process on _____AFB includes approximately ___ SHPO coordinations, ___ work request reviews (EIAP documents, background research, map searches, for example), ___ Phase I and Phase II cultural resources inventories (___ acres for Phase I and ___ sites for Phase II), ___ facility assessments/evaluations, ___ data recovery projects, ___ site and project monitoring, ___ technical report preparation, ___ American Indian consultation (in direct support of a planned undertaking), and other actions.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) section 106 of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, dictates that federal organizations will preserve and administer the cultural resources under its control. The *National Environmental Policy Act of 1969, as amended* (42 USC 4321), dictates that the federal government shall consider the effect of its actions on cultural resources, and "preserve important historic, cultural, and natural aspects of our national heritage."

(Insert appropriate text in EQ Justification & Impact): (Example) The section 106 process is conducted through a contract instead of in-house because the workload exceeds the capabilities of the base cultural resources manager. Failure to complete the required consultations and section 106 review in a timely manner can lead to several consequences. Lack of solid data and analysis may delay the consultation process with the regulatory agencies, which in turn may directly delay the mission or delay the installation's National Environmental Policy Act (NEPA) process. Private individuals or organizations may pursue legal avenues if the process is not followed or the resulting actions or mitigations appear inadequate in their judgement. The section 106 process and associated consultations are mission critical to allow continued operations.

ACES-PM Remarks (insert in EQ Cost Basis): List number of SHPO consultations and section 106 actions/line items anticipated for the year and estimated cost per action (this can be based on the costs to complete such actions in the previous year). Break out cost for consultation, phase I and II surveys and evaluations, section 106 report writing, site monitoring, EIAP document review, for example. The cost should be based on current contractor prices and be presented in an easy to understand format.

(Example) Section 106 costs for the current year may be validated based on costs for the previous year of $____. Estimated costs for the continuation/expansion of this level of effort for the current year are $_____, broken out as follows:

SHPO Coordination Letters (50 @ $__ per letter) $ _____

Work request reviews (100 AF Form 332s @ $___ per form)	$ _____
Phase I surveys (5,000 acres @ $___ per acre)	$ _____
Phase II inventories (20 sites @ $___ per site)	$ _____
Building evaluations (10 bldgs @ $___ per bldg)	$ _____
TOTAL	$ _____

Cultural Resources Requirements

Title: Curation, Base

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: OSM

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HACR

EQ Class: O&S

EQ Media: HP

EQ I&S Activity: Mitigating Sites

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) The cultural resources collections from _____ AFB are curated on base at an EM-administered facility that meets professional standards. The facility is operated by ___ fulltime/part-time contractor/Air Force employee(s). The curated material currently consists of ___ cubic feet of collections and ___ linear feet of associated records. An operating manual/set of guidelines exists that describes the standard operating procedure for this facility.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) 36 CFR 79, *Curation of Federally-owned and Administered Archaeological Collections*, dictates that Federal agencies will preserve collections of prehistoric and historic material remains and associated records, and house them in repositories capable of providing adequate long-term curatorial services.

(Insert appropriate text in EQ Justification & Impact): (Example) It is in the best interest of the Air Force to curate cultural materials on base versus housing them in a private repository because of easier access and cost savings. Failure to fund this project will result in deterioration and loss of collections and noncompliance with federal law.

ACES-PM Remarks (insert in EQ Cost Basis): The cost should be based on an annual operating cost of the base facility and include expenses such as database management, inventory/inspection, filing/records, artifact and records cataloging, documentation, supplies. Expenses should be broken out by line item.

(Example) The annual operating costs of the base-administered curation facility, based on costs from the previous year, are:

Curator (1 person @ 20 hrs/wk)	$_____
Database management	$_____
Inventory/inspection	$_____
Filing/records	$_____
Cataloging	$_____
Documentation	$_____
Supplies	$_____
TOTAL	$_____

Cultural Resources Requirements

Title: Curation, Museum

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: OSM

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HACR

EQ Class: O&S

EQ Media: HP

EQ I&S Activity: Mitigating Sites

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: : (Example) All known cultural resources collection from _____ AFB are curated at Museum name, city, state. The curated material currently consists of ____ cubic feet of collections and ___ linear feet of records. An MOA, MOU, PA has been initiated between the base and repository, which includes a list of collections and records and an agreed upon annual curation fee or operating cost to maintain and curate these resources. This agreement is valid until date.

OR

(Example) The cultural resources collections from _____ AFB are temporally housed in fireproof cabinets in on base at an EM-administered facility that does not meet federal standards. The base is currently negotiating an agreement with museum name, city, state for curation of the collections on or about date. In the meantime, artifacts are being inventoried, cleaned, labeled and bagged. The curated material currently consists of ___ cubic feet of collections and ___ linear feet of records, but an inventory of collections held by other institutions is underway, and these numbers are expected to expand.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) 36 CFR 79, *Curation of Federally-owned and Administered Archaeological Collections*, dictates that Federal agencies will preserve collections of prehistoric and historic material remains and associated records, and house them in repositories capable of providing adequate long-term curatorial services.

(Insert appropriate text in EQ Justification & Impact): (Example) The base does not have a facility meeting the standards of 36 CFR 79, necessitating the use of a private repository to house collections. Failure to fund this project will result in deterioration and loss of collections and noncompliance with federal law.

OR

(Example) Collections are temporally housed on base because an acceptable private repository near the base has not yet been located, or an agreement with a nearby repository is being negotiated.

ACES-PM Remarks (insert in EQ Cost Basis): The cost should be based on an annual fee agreed upon by the base and the repository. This fee should be based on a price per cubic foot/linear foot or a set fee and a signed agreement dictating this cost. If collections are temporally housed on-base, costs should be presented by line item for cabinets, processing, etc.

Temporary curation costs can only include the cost of cabinets and materials necessary for temporary storage (such as bags, boxes, or acid-free paper).

(Example)
Costs are based on an annual fee agreed upon by the base and the repository of $_____. This is based on a price per cubic foot of $_____ and linear foot of $_____:
____ cubic ft of artifacts x $____ per cubic ft = $ _____
____ linear ft of records x $____ per linear ft = $ _____
TOTAL $ _____

OR
Temporary Curation Costs:

Cabinets	$_____
Materials (bags, boxes, acid free paper, for example)	$_____
TOTAL	$ _____

Cultural Resources Requirements

Title: Monitor, Historic Properties

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: OSM

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: MITM

EQ Class: O&S

EQ Media: HP

EQ I&S Activity: Mitigating Sites

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: This category includes the recurring protection and preservation of archaeological sites and historic buildings that have been identified as having impacts from natural and cultural agents. It can consist of annual occurring law enforcement monitoring by law enforcement agents or cultural resources specialists, remote sensing, and so forth. Describe the type of resource and damage, and the proposed protective measures. (Example) Provides for the monitoring/protection of ____ sites/buildings being damage/destroyed by natural/cultural agents. FOR INSTANCE: 1) ___ rockshelters are being illegally excavated, and 10 potholes have been noted in the past year at each site. Site density in this area is high, and there is the potential that more sites have been, or will be impacted. This portion of the base is not fenced, and is difficult to patrol due to lack of developed roads. Motion detectors have been purchased and buried around the rockshelters to alert local law enforcement officials of illegal entry and a monitoring program will be initiated. These detectors must be checked and maintained each year to ensure proper performance 2) Historic buildings in the Army Air Field Historic District are currently being vandalized and impacted by maintenance that has not been coordinated with the Environmental Management office. Constant monitoring of this district is necessary to determine the cause of and stop the impacts and educate the building managers of their preservation responsibilities.

ACES-PM Justification:

(Insert appropriate text in EQ Citation):. Section 110 of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, dictates that significant historic properties under federal control are managed and maintained in a way that considers the preservation of their cultural values and such properties are not allowed to deteriorate through neglect. The *Archaeological Resources Protection Act of 1979* (16 USC 470aa-ll) states that federal land managers prevent the loss and destruction of archaeological resources and sites under their control.

(Insert appropriate text in EQ Justification & Impact): (Example) Recent inspections indicate that the ____sites were vandalized in the past year. These sites and others in this remote area of the base have been vandalized for many years. Periodic monitoring of the sites is necessary each year to ensure further damage is not done. Failure to fund this project will result in the potential loss or damage to historic properties because of inadequate protection, and noncompliance with federal regulations.

ACES-PM Remarks (insert in EQ Cost Basis): Break the costs down by the types of protective actions involved: (Example)

___ remote motion monitor repairs @ $___ per item	$_____
___ days of Security Forces personnel for monitoring @ $____ per day	$ _____
TOTAL	$_____

Cultural Resources Requirements

Title: Evaluation, Archaeological Site

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: ARCH

EQ Class: 1

EQ Media: HP

EQ I&S Activity: Updating Inventories

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: Describe the purpose of the project—evaluation methods should be explained in-depth.
(Example) The base currently has ___ sites that have not been evaluated for NRHP eligibility, and plans to test ___ sites per year. This project provides for Phase II inventories/National Register eligibility determinations for ____ prehistoric artifact scatters. Evaluation methods will consist of analyzing __% of the surface artifact assemblage and excavating ___ test units per site (10% of the site surface). All recovered artifacts will be intensively analyzed and prepared for curation. Archival research will also be conducted on ___ historic sites. The sites to be evaluated include site numbers.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) Section 110 of 16 USC 470 et seq., *National Historic Preservation Act of 1966,* As Amended, requires federal agencies to identify, formally evaluate, and nominate to the National Register all eligible historic properties under its jurisdiction.

(Insert appropriate text in EQ Justification & Impact): (Example) This project is necessary for the current year because the sites are in an area with high potential for military use, and their evaluation may open up larger areas for mission requirements. The sites are currently unevaluated, and must be protected as if they were eligible. If evaluated, many of the sites will be determined ineligible and will no longer warrant protection. Failure to fund this project will result in mission delay (specific examples are good), potential loss or damage to cultural resources, and noncompliance with federal laws.

ACES-PM Remarks (insert in EQ Cost Basis): Provide a cost breakdown by site or total project costs:
(Example)
20 sites tested @ $_____ per site = $_____

OR

20 sites X 5 test pits @ $____ per test pit	$_____
Mapping/surface artifact analysis @ $____ per site	$_____
Analysis & professional report (20 copies)	$_____
TOTAL	$_____

Cultural Resources Requirements

Title: Inventory, Archaeological

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: ARCH

EQ Class: 1

EQ Media: HP

EQ I&S Activity: Updating Inventories

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) Provides for a Phase I archaeological survey necessary to complete/continue the base-wide inventory (and not covered under section 106). The project will locate and document sites on _____ acres. The base has an agreement with the SHPO to complete ___% of the total base acreage (____ acres will be surveyed) using a sample survey strategy. This strategy consists of surveying ___ 1 km survey units randomly placed throughout the base. The current inventory will/will not complete the basewide survey.; further inventory of ___ acres is still required, and the inventory will be completed in FY__. All sites located during the inventory will be evaluated for NRHP eligibility. This consists of excavating ___ test pits per site and analyzing ___ % of the surface artifact assemblage.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) Section 110 of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, requires federal agencies to identify and evaluate historic properties under its jurisdiction. In a November 1995 policy letter "Revised Goals for Natural and Cultural Resources Inventories and Management Plans," the USAF established a deadline of the end of FY1997 for the completion of their base-wide inventories. Those installations with large ranges/land masses were given extensions to this deadline.

(Insert appropriate text in EQ Justification & Impact): (Example) This project is necessary for the current year to meet the USAF deadline of X for Anybase AFB. The cost for the survey is high because the area is located in mountains with difficult access, and site densities are expected to be high. Failure to fund this project will result in mission delay (specific examples are good), potential loss or damage to cultural resources, and noncompliance with federal laws and the USAF goal to complete inventories.

ACES-PM Remarks (insert in EQ Cost Basis): Include a cost per acre breakdown of the project based on state standard costs (e.g., $45 per acre for shovel test surveys in Florida; $20 per acre for surface inventories in New Mexico), and costs per site for NRHP eligibility determinations:
(Example)

___ acres shovel test pit survey @ $___ per acre	$_____
___ acre surface inventory @ $ ___ per acre	$ _____
estimated ___ sites @ $____ per NR evaluation	$ _____

Cultural Resources Requirements

Title: Inventory, Building

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1 **EQ Class:** 1

ACES-PM Statutory Authority: HP **EQ Media:** HP

ACES-PM Pollutant Category: HIST **EQ I&S Activity:** Updating Inventories

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) Provides for the inventory/documentation (HABS/HAER-level documentation) and NRHP eligibility evaluations of facilities (building and structures) necessary to complete/continue the base-wide inventory (and not covered under section 106). This project includes HABS/HAER Level IV documentation of ____ buildings (__ WW II and __ Cold War). Archival research will also be conducted to help establish historic context and determine NRHP eligibility. This project completes the inventory of 50-year-old buildings (those constructed prior to 1950). More inventory will be necessary for building constructed after that date.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): : (Example) Section 110 of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, requires federal agencies to identify and evaluate historic properties under its jurisdiction. In a November 1995 policy letter "Revised Goals for Natural and Cultural Resources Inventories and Management Plans," the USAF established a deadline of the end of FY1997 for the completion of their base-wide inventories (including only those buildings 50 years old and older). The USAF created the *Interim Guidance for the Treatment of Cold War Historic Properties for U.S. Air Force Installations* to address important Cold War facilities, and the National Park Service created Criteria Consideration G for the National Register to take into account exceptional properties that had not yet reached the 50-year mark.

(Insert appropriate text in EQ Justification & Impact): (Example) This project is necessary for the current year to meet the USAF deadline of completing cultural resources inventories by 19xx for Anybase AFB. HABS/HAER Level I documentation will be accomplished because of the known significance and fragile condition of the buildings. Cold War facilities less than 50 years old are being documented because there is the potential that they are of exceptional significance, and many are planned for demolition. In addition, many of these buildings will turn 50 years old in the next few years. Failure to fund this project will result in mission delay (specific examples are good), potential loss or damage to historic properties, and noncompliance with federal laws and the USAF goal to complete inventories.

ACES-PM Remarks (insert in EQ Cost Basis): Include a cost per building breakdown of the project: (Example)

___ buildings inventoried/documented @ $___ per bldg	$_____
historic research	$ _____
reproducing construction drawings	$ _____
TOTAL	$_____

Cultural Resources Requirements

Title: National Register Nomination

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HIST

EQ Class: 1

EQ Media: HP

EQ I&S Activity: Mitigating Sites

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) Provides for the preparation and coordination of ____ National Register of Historic Places nomination package(s). A NRHP nomination package will be prepared for an historic district containing 15 Cold War missile facilities. The TS-1A Missile Complex is of exceptional significance because of its association with Atlas missile development during the early Cold War. OR A NRHP nomination package will be prepared for the C.W. McNatt Ranch house. This building is significant because of its unique laminated wood architecture and its association with C.W. McNatt, who was the first Anglo homesteader in southern New Mexico.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) Section 110 of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, dictates that federal organizations will inventory all properties under their ownership or control and nominate to the National Register of Historic Places all properties that may qualify.

(Insert appropriate text in EQ Justification & Impact): (Example) This project is necessary for the current year to meet the requirements of a MOU between the base and the SHPO. In addition, this missile facility is of exceptional Cold War significance because it is the only one of its kind in the U.S., and being on the NRHP will provide it the level of protection needed to maintain its integrity. Failure to fund this project will result in potential loss or damage to historic properties, and noncompliance with federal laws and an MOU between the USAF and SHPO.

ACES-PM Remarks (insert in EQ Cost Basis): : Include a breakdown of the project costs:
(Example)

Documentation of districts/sites/buildings	$_____
Photography	$ _____
Completion of NRHP nomination forms	$ _____
Coordination process and form revisions	$ _____
TOTAL	$_____

Cultural Resources Requirements

Title: Plan Revision, CRMP

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HIST

EQ Class: 1

EQ Media: HP

EQ I&S Activity: Updating Plans

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) Provides for the 5-year revision of the existing CRMP, which was completed in _____. The 5-year CRMP revision consists of major modifications/revisions of the existing plan to bring it up to date with current laws and regulations and base and program conditions. Necessary changes include addition of new aspects to the base mission that will affect the cultural resources program (such as a new bombing range, new squadrons initiating new types of undertakings, acreage loss or gain, addition or loss of resources, new National Register status of resources). The CRMP is currently outdated, and will be reformatted to meet current AFMC standards such as the addition of a 5-year program/funding outline that will correspond to the projects in the ACES-PM program (FYDP). In addition, the base does not have a Programmatic Agreement (PA) or Memorandum of Agreement (MOA) with the State Historic Preservation Office and Advisory Council as part of the CRMP, and one will be created as part of the update.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) Section 110 (a) (2) of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, states that federal agencies should develop and use comprehensive historic preservation plans which establishes cultural resource program requirements and guidelines. AFI 32-7065, *Cultural Resource Management*, requires bases with cultural resources to have a Cultural Resources Management Plan (CRMP). The CRMP must be approved by the MAJCOM every 5 years, and it must be revised and current before it can be submitted to the MAJCOM.

(Insert appropriate text in EQ Justification & Impact): (Example) The CRMP is required by the NHPA and AFI 32-7065 and is revised to ensure it stays updated and there is proper management and protection of cultural resources on the base. The plan is outdated, and major revisions are necessary, so the task exceeds the ability of in-house staff and must be completed though a contract. Failure to fund this project will result in an outdated plan and the potential loss or damage to historic properties because of inadequate management, and noncompliance with USAF regulations.

ACES-PM Remarks (insert in EQ Cost Basis): : Include a breakdown of the project costs:

(Example)

Research	$_____
Reformatting	$ _____
Printing	$ _____
Coordination process and revisions	$ _____
TOTAL	$_____

Cultural Resources Requirements

Title: Plan, CRMP

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: HIST

EQ Class: 1

EQ Media: HP

EQ I&S Activity: Updating Plans

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: (Example) Provides for the completion of the CRMP. The CRMP will be developed following guidelines set forth by HQ AFMC/CEVC. It will provide an in-depth description of all aspects of the cultural resources program as illustrated in AFI 32-7065. It will describe the base mission, existing cultural resources, and how the base manages these resources. The plan will include a 5-year plan that corresponds to the projects in the ACES-PM program for the 5-year period (FYDP). As part of the plan, a Programmatic Agreement will be developed in coordination with the MAJCOM, SHPO, and Advisory Council. The CRMP should be compiled in a three-ring binder and developed so that it can be annually updated in-house.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) Section 110 (a) (2) of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, states that federal agencies should develop and use comprehensive historic preservation plans which establishes cultural resource program requirements and guidelines. AFI 32-7065, *Cultural Resource Management*, requires bases with cultural resources to have a Cultural Resources Management Plan (CRMP). The CRMP must be approved by the MAJCOM every 5 years, and it must be revised and current before it can be submitted to the MAJCOM.

(Insert appropriate text in EQ Justification & Impact): (Example) The CRMP is required by the NHPA and AFI 32-7065 and is necessary to ensure there is proper management and protection of cultural resources on the base. Failure to fund this project will result in the potential loss or damage to historic properties because of inadequate management, potential mission delays, and noncompliance with USAF regulations.

ACES-PM Remarks (insert in EQ Cost Basis): Include a breakdown of the project costs:
(Example)

Research	$_____
Report production	$ _____
Printing	$ _____
Coordination process and revisions	$ _____
TOTAL	$_____

Cultural Resources Requirements

Title: Protect, Historic Properties

PEC: 78053

EEIC: 53475

Information required for the ACES-PM database and EQ database:

ACES-PM Compliance Class: 1

ACES-PM Statutory Authority: HP

ACES-PM Pollutant Category: MITM

EQ Class: 1

EQ Media: HP

EQ I&S Activity: Mitigating Sites

EQ I&S Media: Cultural

EQ Category: Natural and Cultural Management

ACES-PM and EQ Description: This category includes the nonrecurring protection and preservation of archaeological sites and historic buildings that have been identified as having impacts from natural and cultural agents. It can consist of damage assessments, stabilization (such as backfilling potholes or controlling erosion; emergency stabilization only for buildings), installation of signs and fences, and so forth. Describe the type of resource and damage, and the proposed protective measures. (Example) Provides for the protection/preservation/stabilization of ____ sites/buildings being damaged/destroyed by natural/cultural agents. FOR INSTANCE: 1) ___ archaeological shell midden sites on a shoreline are being eroded by wave action, and there is a loss of 10 feet of shoreline and cultural midden per year. The shoreline will be stabilized using concrete-filled ripap structures. 2) ___ rockshelter are being illegally excavated, and 10 potholes have been noted in the past year at each site. Site density in this area is high, and there is the potential that more sites have been, or will be impacted. This portion of the base is not fenced, and is difficult to patrol due to lack of developed roads. Motion detectors have been purchased and buried around the rockshelters to alert local law enforcement officials of illegal entry and a monitoring program will be initiated. 3) A large prehistoric artifact scatter is being impacted by off-road vehicle use and illegal surface artifact collecting. A fence with Keep Out signs will be constructed around the site and it will be occasionally monitored by base Security Forces. 4) A WW II hangar roof was partially blown off in a hurricane, exposing interior to the elements and threatening the building's stability. The roof will be replace with material similar to the historic roof, and the structure interior will be cleaned. 5) An abandoned Cold War blockhouse is being vandalized with spray paint graffiti and bullet holes, which diminishes its historic integrity. The graffiti will be removed using Brand X paint remover, the bullet holes in the glass windows will be patched, and KEEP OUT signs will be posted.

ACES-PM Justification:

(Insert appropriate text in EQ Citation): (Example) Section 110 of 16 USC 470 et seq., *National Historic Preservation Act of 1966, As Amended*, dictates that significant historic properties under federal control are managed and maintained in a way that considers the preservation of their cultural values and such properties are not allowed to deteriorate through neglect. The *Archaeological Resources Protection Act of 1979* (16 USC 470aa-ll) states that federal land managers prevent the loss and destruction of archaeological resources and sites under their control.

Insert appropriate text in EQ Justification & Impact): (Example) The ___ sites are rapidly deteriorating, and stabilizing them in the current year is necessary to ensure their preservation as required by law. Monitoring of the site indicates ___ inches of topsoil are eroded away annually. In addition, a recent inspection indicates that the sites were vandalized in the past year. The WW II building is abandoned and is

not maintained by CE. The loss of the roof will result in rapid destruction of the building. If this emergency stabilization is not accomplished, the building will be lost. A MOA with the SHPO requires maintenance of the buildings in this historic district. Failure to fund this project will result in the potential loss or damage to historic properties because of inadequate protection, and noncompliance with federal regulations.

ACES-PM Remarks (insert in EQ Cost Basis): Break the costs down by the types of protective actions involved:
(Example)

___ remote motion monitors @ $___ per item	$_____
Site stabilization w/ riprap @ $____ per site	$ _____
Damage assessments at ___ sites @ $___ per site	$ _____
TOTAL	$_____

Appendix A: Disposition of Previous Project Titles

Note: Page numbers in this extract match page numbers of full SPG.

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Appendix A: Disposition of Previous Project Titles

The following table contains a line by line comparison of the previous project titles from the 20 August 99(FINAL) version of the Standardized Environmental Programming Guidance with the project titles from this version of the guide. Some of the abbreviations used are:

A/A	Assessments/Audits	NR	Nonrecurring
CN NM	Conservation Nonmedia Specific	Pln Mnt	Plan Maintenance
Dsp Opns	Disposal Operations	Pmt Mnt	Permit Maintenance
DW	Drinking Water	R/R	Recordkeeping/Reporting
EC NM	Environmental Compliance Nonmedia Specific	SAM	Sampling, Analysis, and Monitoring
HW	Hazardous Waste	Upd Pln	Updating Plans
LF	Landfills	Upd Inv	Updating Inventories
Mit Sites	Mitigating Sites	WW	Wastewater

Note: In the current version of the Guidance, each Class 1 project has been categorized in one of the I&S Activities. The 20 Aug 99 version of the guide categorized the Class 1 projects only as Nonrecurring.

Yellow highlight indicates a change from the 20 Aug 99(FINAL) version of the Guidance.

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
EC NM	Overhead	Contractor Support, EC Office	O&S			Deleted		Program support under specific project titles.
EC NM	Overhead	Printing, EC Office	O&S	EC NM	Apportioned	Printing, EC Office	O&S	Overhead now Apportioned
EC NM	Overhead	Publications, EC Office	O&S	EC NM	Apportioned	Publications, EC Office	O&S	Overhead now Apportioned
EC NM	Overhead	Supplies, EC Office	O&S	EC NM	Apportioned	Supplies, EC Office	O&S	Overhead now Apportioned
EC NM	Overhead	TDY, EC Office	O&S	EC NM	Apportioned	TDY, EC Office	O&S	Overhead now Apportioned
EC NM	Overhead	Vehicle Leasing, EC Office	O&S	EC NM	Apportioned	Vehicle Leasing, EC Office	O&S	Overhead now Apportioned
EC NM	A/A	ECAMP, Internal Support	O&S	EC NM	A/A	ECAMP, Internal Support	O&S	
EC NM	Training	Training, EC Office	O&S	EC NM	Training	Training, EC Office	O&S	
EC NM	Training	Training, ECAMP	O&S	EC NM	Training	Training, ECAMP	O&S	

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
Air	Overhead	AQ Mgt Support	O&S			Deleted		Program support under specific project titles.
Air	Pmt Mnt	P&F, Air	O&S	Air	Pmt Mnt	P&F, Air	O&S	
Air	Pmt Mnt	P&F, Title V	O&S	Air	Pmt Mnt	P&F, Title V	O&S	
Air	Pmt Mnt	Permit Maint, Air	O&S	Air	Pmt Mnt	P&F, Air, Permit Maint	O&S	Minor change in title
Air	Pmt Mnt	Permit Maint, Title V	O&S	Air	Pmt Mnt	P&F, Title V, Permit Maint	O&S	Minor change in title
Air	Pln Mnt	Plan Update, RMP, _____	O&S	Air	Pln Mnt	Plan Update, RMP, _____	O&S	
Air	Pln Mnt	Plan Update, SIP, _____	O&S	Air	Pln Mnt	Plan Update, SIP, _____	O&S	
Air	Pln Mnt	Plan Update, TCM, _____	O&S	Air	Pln Mnt	Plan Update, TCM, _____	O&S	
Air	R/R	AEI Data Mgt	O&S	Air	R/R	Inventory, AEI Data Mgt	O&S	Minor change in title
Air	R/R	AEI, State, Data Mgt	O&S	Air	R/R	Inventory, AEI, State, Data Mgt	O&S	Minor change in title
Air	R/R	APIMS Maint, Local Interface	O&S	Air	R/R	APIMS Maint, Local Support	1	Minor change in title and change in Class
Air	R/R	I&M Program (Sec 118 C&D)	O&S	Air	R/R	Recordkeeping, I&M (SEC 118 C&D)	O&S	Minor change in title
Air	R/R	Recordkeeping NESHAP, ***	O&S	Air	R/R	Recordkeeping, NESHAP, _____	O&S	Minor change in title
Air	R/R	Recordkeeping, ODS	O&S	Air	R/R	Recordkeeping, Other, ODS	O&S	Minor change in title
Air	R/R	Recordkeeping, Permit, _____	O&S	Air	R/R	Recordkeeping, Other, Permit, _____	O&S	Minor change in title
Air	R/R	Recordkeeping, RMP	O&S	Air	R/R	Recordkeeping, RMP	O&S	
Air	R/R	Recordkeeping, SIP	O&S	Air	R/R	Recordkeeping, SIP	O&S	
Air	R/R	Recordkeeping, State HAP, ***	O&S	Air	R/R	Recordkeeping, State, HAP, _____	O&S	Minor change in title
Air	R/R	Recordkeeping, TCM	O&S	Air	R/R	Recordkeeping, Other, TCM_____	O&S	Minor change in title
Air	R/R	Recordkeeping, Title V	O&S	Air	R/R	Recordkeeping, Title V	O&S	
Air	R/R	Recordkeeping, Title VI	O&S	Air	R/R	Recordkeeping, Title VI	O&S	
Air	SAM	SAM, Asbestos	O&S			Deleted		Use SAM, Toxics in Other
Air	SAM	SAM, Conformity Analysis	O&S	Air	SAM	SAM, Air, Conformity Analysis	O&S	Minor change in title
Air	SAM	SAM, Conformity Compliance	O&S	Air	SAM	SAM, Air, Conformity Compliance	O&S	Minor change in title

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
Air	SAM	SAM, Existing Source Testing	O&S	Air	SAM	SAM, Air, Existing Source Testing	O&S	Minor change in title
Air	SAM	SAM, NESHAP, ***	O&S	Air	SAM	SAM, Air, NESHAP, _____	O&S	Minor change in title
Air	SAM	SAM, O3	O&S	Air	SAM	SAM, Air, Ozone	O&S	Minor change in title
Air	SAM	SAM, PM2.5	O&S	Air	SAM	SAM, Air, PM2.5	O&S	Minor change in title
Air	SAM	SAM, SIP	O&S	Air	SAM	SAM, Air, SIP	O&S	Minor change in title
Air	SAM	SAM, State Hap, ***	O&S	Air	SAM	SAM, Air, State HAP, _____	O&S	Minor change in title
Air	SAM	SAM, Title V	O&S	Air	SAM	SAM, Air, Title V	O&S	Minor change in title
Air	SAM	SAM, TTU	O&S	Air	SAM	SAM, Air, TTU	O&S	Minor change in title
Air	SAM	Supplies, CAA	O&S	Air	SAM	Supplies, SAM, CAA	O&S	Minor change in title
Air	Training	Training, Air Management	O&S	Air	Training	Training, Air Program	O&S	Minor change in title
Air	Training	Training, Air Source Operator	O&S	Air	Training	Training, Air Source Operator	O&S	
Air	NR	Abatement/Controls, _____	1	Air	Pmt Mnt	Abatement/Controls, _____	1	
Air	NR	AEI Data Collection	1	Air	R/R	AEI Data Collection	1	
Air	NR	AEI, _____	1	Air	R/R	AEI, _____	1	
Air	R/R	AEI Data Migration to APIMS *(HQ only)*	1	Air	R/R	AEI Data Migration to APIMS *(HQ only)*	1	
Air	NR	Conformity Determination	1	Air	SAM	Conformity Determination	1	
Air	NR	Conformity, _____	1	Air	SAM	Conformity, _____	1	
Air	NR	Cost of Compliance Assessment	O&S	Air	A/A	CAA Cost of Compliance Assessment	1	Changed Class
Air	NR	Dispersion & Impact Modeling	1	Air	A/A	Dispersion & Impact Modeling	1	
Air	NR	Emission Assessment, _____	1	Air	A/A	Emission Assessment, _____	1	
Air	NR	Emission Assessment, Energy	1	Air	A/A	Emission Assessment, Energy	1	
Air	NR	Equipment, SAM, _____	1	Air	SAM	Equipment, SAM, _____	1	
Air	NR	AQ Feas Assessment, _____	1	Air	A/A	SIP, AQ Feasibility Assessment, _____	1	Minor change in title
Air	NR	NESHAP Impact Assessment, ***	1	Air	A/A	NESHAP Impact Assessment, _____	1	Minor change in title
Air	NR	NESHAP, _____	1	Air	A/A	NESHAP, (Implementation)	1	
Air	NR	NESHAP Risk Assessment, ***	1	Air	A/A	NESHAP Risk Assessment, _____	1	
Air	NR	O3 NAAQS Impact Assessment	1	Air	A/A	Ozone NAAQS Impact Assessment	1	Minor change in title
Air	NR	O3 Monitoring Equipment	1	Air	SAM	Ozone Monitoring Equipment	1	Minor change in title

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
Air	NR	Permit Assessment, _____	1	Air	Pmt Mnt	Permit Assessment, _____	1	
Air	NR	Permit Mod, _____	1	Air	Pmt Mnt	Permit Mod, _____	1	
Air	NR	Permit Prep, _____	1	Air	Pmt Mnt	Permit Prep, _____	1	
Air	NR	Permit Renewal(s), _____	1	Air	Pmt Mnt	Permit Renewal(s), _____	1	
Air	NR	Plan Revision, RMP	1	Air	Pln Mnt	Plan Revision, RMP_____	1	
Air	NR	Plan Revision, SIP Compl Plan	1	Air	Pln Mnt	Plan Revision, SIP Compl Plan	1	
Air	NR	Plan Revision, TCM	1	Air	Pln Mnt	Plan Revision, TCM	1	
Air	NR	Plan, RMP	1	Air	Pln Mnt	Plan, RMP, _____	1	
Air	NR	Plan, SIP Compl Plan	1	Air	Pln Mnt	Plan, SIP Compl Plan	1	
Air	NR	Plan, TCM	1	Air	Pln Mnt	Plan, TCM	1	
Air	NR	PM 2.5 Monitoring Equipment	1	Air	SAM	PM 2.5 Monitoring Equipment	1	
Air	NR	PM2.5 NAAQS Impact Assessment	1	Air	A/A	PM2.5 NAAQS Impact Assessment	1	
Air	NR	Regulatory Tracking & Support	1	Air	A/A	Regulatory Tracking & Support	1	
Air	NR	RMP Assessment & Development	1	Air	Pln Mnt	RMP Assessment/ Development	1	
				Air	Pln Mnt	RMP Process Compliance Alternative	1	New title
Air	NR	SIP, (Implementation)	1	Air	Pmt Mnt	SIP, _____	1	
Air	NR	SIP, (Ozone Implementation Title)	1	Air	Pmt Mnt	SIP, (Ozone Implementation Title)	1	
Air	NR	SIP, (PM2.5 Implementation Title)	1	Air	Pmt Mnt	SIP, (PM2.5 Implementation Title)	1	
Air	NR	State HAP Assessment, ***	1	Air	A/A	State HAP Assessment, _____	1	Minor change in title
Air	NR	State HAP, _____	1	Air	SAM	State HAP, (Implementation)	1	Minor change in title
Air	NR	Testing, Source Demonstration	1	Air	SAM	Testing, Source Demonstration	1	
Air	NR	Urban Toxics Assessment	1	Air	A/A	Urban Toxics, Assessment	1	
Air	NR	Urban Toxics, _____	1	Air	Pmt Mnt	Urban Toxics, _(Implementation)____	1	
CWA	Overhead	Supplies, Spill Response	O&S	Other	Pln Mnt	Supplies, Spill Response	O&S	Changed Media and I&S Activity
CWA	A/A	Storm Water Cert. Inspection	O&S	WW	A/A	Storm Water Cert. Inspection	O&S	
CWA	Pmt Mnt	P&F, Wastewater	O&S	WW	Pmt Mnt	P&F, Wastewater	O&S	
				WW	Pmt Mnt	P&F, Storm Water	O&S	New project title

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
CWA	SAM	SAM, Sludge	O&S	WW	SAM	SAM, Sludge	O&S	
CWA	SAM	SAM, Wastewater	O&S	WW	SAM	SAM, Wastewater	O&S	
				WW	SAM	SAM, Storm Water	O&S	New project title
CWA	SAM	Supplies, CWA SAM	O&S	WW	SAM	Supplies, SAM, CWA	O&S	Minor change in title
CWA	Training	Training, Hazmat Response	O&S	Other	Training	Training, Emergency Response	O&S	Minor change in title/Change from CWA to Other
				WW	Training	Training, Storm Water	O&S	New project title
CWA	NR	O/W Separator Survey	1	WW	A/A	O/W Separator Survey	1	
CWA	NR	Consolidate O/W Separators	1	WW	Pmt Mnt	Consolidate O/W Separators	1	
CWA	NR	Replace O/W Separators	1	WW	Pmt Mnt	Replace O/W Separators	1	
CWA	NR	Inflow & Infiltration Survey	1	WW	A/A	Inflow & Infiltration Survey	1	
CWA	NR	Repair Wastewater System	1	WW	Pmt Mnt	Repair Wastewater System	1	
CWA	NR	Storm Water Cross Conn Survey	1	WW	A/A	Storm Water Cross Conn Survey	1	
CWA	NR	Elim Storm Water Cross Conn	1	WW	Pmt Mnt	Elim Storm Water Cross Conn	1	
CWA	NR	Storm Water Retention Basin	1	WW	Pmt Mnt	Storm Water Retention Basin	1	
CWA	NR	Plan Revision, SPCC/FRP	1	AST	Pln Mnt	Plan Review/Revision, SPCC/FRP	1	Moved to AST/ Minor change in title
CWA	NR	Plan Revision, Storm Water P2	1	WW	Pmt Mnt	Plan Revision, Storm Water P2	1	
CWA	NR	Permit Renewal, Wastewater	1	WW	Pmt Mnt	Permit Renewal, Wastewater	1	
EPCRA	R/R	Reports, EPCRA Form R	O&S	EPCRA	R/R	Reports, EPCRA Form R	O&S	
				EPCRA	Training	Training, EPCRA	O&S	New project title
EPCRA	NR	EPCRA Report Setup	1	EPCRA	R/R	EPCRA Report Setup	1	
HW	Overhead	Supplies, HW	O&S	HW	Dsp Opns	Supplies, HW	O&S	Moved from OH to Dsp Opns
HW	A/A	HW EPA Reimbursement	O&S	HW	A/A	HW EPA Reimbursement	O&S	

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
HW	Dsp Opns	HM Disposal, Other Regulated	O&S	HW	Dsp Opns	Disposal, Other Regulated Waste	O&S	Minor change in title
HW	Dsp Opns	HW Contract Support	O&S	HW	Dsp Opns	HW Contract Support	O&S	
HW	Dsp Opns	HW Disposal, RCRA Regulated	O&S	HW	Dsp Opns	Disposal, RCRA Regulated HW	O&S	Minor change in title
HW	Dsp Opns	HW Recycling, RCRA Regulated	O&S	HW	Dsp Opns	Recycling, RCRA Regulated HW	O&S	Minor change in title
HW	Pmt Mnt	P&F, HW Mgt	O&S	HW	Pmt Mnt	P&F, HW Generation	O&S	Change in title and scope
				HW	Pmt Mnt	P&F, HW TSDF-CSF	O&S	New project title
HW	Pln Mnt	Plan Update, HW Management	O&S	HW	Pln Mnt	Plan Update, HW Management	O&S	
HW	R/R	Reports, HW	O&S	HW	R/R	Reports, HW	O&S	
HW	SAM	SAM, HW	O&S	HW	SAM	SAM, HW Characterization	O&S	Change in title and scope
				HW	SAM	SAM, HW TSDF—CSF Groundwater	O&S	New project title
HW	Training	Training, HW	O&S	HW	Training	Training, HW	O&S	
HW	NR	Equipment, HW	1	HW	Dsp Opns	Equipment, HW	1	
HW	NR	Permit Mod, HW TSD	1	HW	Pmt Mnt	Permit Mod, HW TSD-CSF	1	Change in title and scope
HW	NR	Permit Mod, HW TTU	1	OB/OD	Pmt Mnt	Permit Mod, HW TSDF-TTU	1	Minor change in title/Moved from HW to OB/OD
HW	NR	Permit Prep, HW TSD	1	HW	Pmt Mnt	Permit Prep, HW TSD-CSF	1	Minor change in title
HW	NR	Permit Prep, HW TTU	1	OB/OD	Pmt Mnt	Permit Prep, HW TSDF-TTU	1	Minor change in title/Moved from HW to OB/OD
HW	NR	Plan, HW Management	1	HW	Pln Mnt	Plan, HW Management	1	
				OB/OD	Pmt Mnt	P&F, HW TSDF-TTU	O&S	New project title
				OB/OD	SAM	SAM, HW TSDF – TTU Groundwater	O&S	New project title
RCRA-CA	Pmt Mod	P&F, RCRA-CA, SWMU _____	O&S	RCRA-CA	Pmt Mnt	P&F, RCRA-CA	O&S	

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
RCRA-CA	SAM	SAM, Final LTM, SWMU _____	O&S	RCRA-CA	SAM	SAM, Final LTM, SWMU _____	O&S	
RCRA-CA	SAM	SAM, IRA LTM, SWMU _____	O&S	RCRA-CA	SAM	SAM, IRA LTM, SWMU _____	O&S	
RCRA-CA	NR	Action, RCRA-CA, SWMU _____	1	RCRA-CA	Pmt Mnt	CMI Action, RCRA-CA, SWMU _____	1	Minor change in title
RCRA-CA	NR	Alternatives, SWMU _____	1	RCRA-CA	Pmt Mnt	CMS Alternatives, SWMU _____	1	Minor change in title
RCRA-CA	NR	Assessment, SWMU _____	1	RCRA-CA	A/A	PSA Assessment, SWMU _____	1	Minor change in title
RCRA-CA	NR	Design, RCRA-CA, SWMU _____	1	RCRA-CA	Pmt Mnt	CMD Design, RCRA-CA, SWMU _____	1	Minor change in title
RCRA-CA	NR	Final LTO, SWMU _____	1	RCRA-CA	Pmt Mnt	LTO, Final LTO, SWMU_____	O&S	Change in Class and title
RCRA-CA	NR	Interim Action, SWMU _____	1	RCRA-CA	Pmt Mnt	Interim Action, SWMU _____	1	
RCRA-CA	NR	Investigation, SWMU _____	1	RCRA-CA	SAM	RFI Investigation, SWMU _____	1	
RCRA-CA	NR	IRA LTO, SWMU _____	1	RCRA-CA	Pmt Mnt	LTO, IRA LTO, SWMU _____	1	Minor change in title
RCRA-CA	NR	Permit Mod, SWMU _____	1	RCRA-CA	Pmt Mnt	Permit Mod, RCRA-CA	1	Minor change in title
RCRA-CA	NR	Plan, RCRA-CA, SWMU _____	1	RCRA-CA	Pln Mnt	Plan, RCRA-CA	1	Minor change in title
RCRA-CA	NR	Report, RCRA-CA, SWMU _____	1	RCRA-CA	R/R	Report, RCRA-CA	1	Minor change in title
SDWA	Pmt Mnt	P&F, Drinking Water	O&S	DW	Pmt Mnt	P&F, Drinking Water	O&S	
SDWA	SAM	SAM, Drinking Water	O&S	DW	SAM	SAM, Drinking Water	O&S	
SDWA	SAM	Supplies, SDWA, SAM	O&S	DW	SAM	Supplies, SAM, SDWA	O&S	Minor change in title
SDWA	NR	Drinking Water System Eval	1	DW	A/A	Drinking Water System Evaluation	1	Minor change in title
SDWA	NR	Plan, Wellhead Protection	1	DW	Pln Mnt	Plan, Source Water Protection	1	Minor change in title
SDWA	NR	Survey Backflow Preventors	1	DW	A/A	Survey Backflow Preventers	1	Minor change in spelling
SDWA	NR	Install Backflow Preventors	1	DW	Pmt Mnt	Install Backflow Preventers	1	Minor change in spelling
SDWA	NR	Repair Drinking Water Systems	1	DW	Pmt Mnt	Repair Drinking Water Systems	1	
					Pmt Mnt	P&F, Drinking Water, Permit Application	1	New project title
LF	Pmt Mnt	P&F, SW	O&S	LF	Pmt Mnt	P&F, Solid Waste/Landfill	O&S	Minor change in title
LF	NR	Permit Mod, SW	1	LF	Pmt Mnt	Permit Mod, SW	1	

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
LF	NR	Permit Prep, SW	1	LF	Pmt Mnt	Permit Prep, SW	1	
				LF	SAM	SAM, SW Landfill Groundwater	O&S	New project title
UST	Pmt Mnt	P&F, USTs	O&S	UST	Pmt Mnt	P&F, USTs	O&S	
UST	SAM	SAM, Leak Detection	O&S	UST	SAM	SAM, Leak Detection	O&S	
				UST	SAM	SAM, UST LTM	O&S	New project title
UST	NR	UST 5-Year Integrity Test	1	UST	A/A	UST 5-Year Integrity Test	1	
UST	NR	UST Corrective Action	1	UST	Pmt Mnt	UST Corrective Action Installation	1	Minor change in title
UST	NR	UST Site Investigation	1	UST	A/A	UST Site Investigation	1	
				UST	Pmt Mnt	UST Site Closure	1	New project title
				Other	SAM	SAM, EC Other, _____	O&S	New project title
				Other	SAM	SAM, Toxics	O&S	New project title -- includes Asbestos, other toxics
				CN NM	Apportioned	Equipment, CN Activities	O&S	New project title
				CN NM	Apportioned	Equipment Maint, CN Support	O&S	New project title
CN NM	Overhead	Contractor Support, CN Office	O&S	CN NM		Deleted		Program support under specific project titles.
CN NM	Overhead	Printing, CN Office	O&S	CN NM	Apportioned	Printing, CN Office	O&S	Overhead now Apportioned
CN NM	Overhead	Publications, CN Office	O&S	CN NM	Apportioned	Publications., CN Office	O&S	Overhead now Apportioned
CN NM	Overhead	Supplies, CN Office	O&S	CN NM	Apportioned	Supplies, CN Office	O&S	Overhead now Apportioned
CN NM	Overhead	TDY, CN Office	O&S	CN NM	Apportioned	TDY, CN Office	O&S	Overhead now Apportioned
CN NM	Overhead	Vehicle Leasing, CN Office	O&S	CN NM	Apportioned	Vehicle Leasing, CN Office	O&S	Overhead now Apportioned
CN NM	Training	Training, CN Office	O&S	CN NM	Training	Training, CN Office	O&S	
CN NM	NR	Equipment, CN Office	1	CN NM	Apportioned	Equipment, CN Office	1	

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
Cultural	Overhead	Public Awareness, Cultural	O&S	Cultural	Apportioned	Public Awareness, Cultural	O&S	Overhead now Apportioned
Cultural	Consultation	Consultation, Native American	O&S	Cultural	Consultation	Consultation, American Indian	O&S	Minor change in title
Cultural	Consultation	Consultation, Section 106	O&S	Cultural	Consultation	Consultation, Section 106	O&S	
Cultural	Mit Sites	Curation, Base	O&S	Cultural	Mit Sites	Curation, Base	O&S	
Cultural	Mit Sites	Curation, Museum	O&S	Cultural	Mit Sites	Curation, Museum	O&S	
Cultural	Mit Sites	Monitor/Preserve Sites	O&S	Cultural	Mit Sites	Monitor, Historic Properties	O&S	Minor change in title
Cultural	NR	Evaluation, Archaeological Site	1	Cultural	Updt Inv	Evaluation, Archaeological Site	1	
Cultural	NR	Inventory, Archaeological	1	Cultural	Updt Inv	Inventory, Archaeological	1	
Cultural	NR	Inventory, Building	1	Cultural	Updt Inv	Inventory, Building	1	
Cultural	NR	National Register Nomination	1	Cultural	Mit Sites	National Register Nomination	1	
Cultural	NR	Plan Revision, CRMP	1	Cultural	Updt Pln	Plan Revision, CRMP	1	
Cultural	NR	Plan, CRMP	1	Cultural	Updt Pln	Plan, CRMP	1	
Cultural	NR	Protect, Historic Property	1	Cultural	Mit Sites	Protect, Historic Properties	1	Minor change in title
EIAP	EIAP	EA/EIS-Range & Test Facilities	1	EIAP	EIAP	EA/EIS-Range & Test Facilities	1	
EIAP	EIAP	NEPA-EA/EIS	1	EIAP	EIAP	NEPA-EA/EIS	1	
EIAP	EIAP	NEPA-_____	1	EIAP	EIAP	NEPA-_____	1	
Natural	Overhead	P&F, Wetlands	O&S	Natural	Apportioned	P&F, Wetlands	O&S	
Natural	Overhead	Presidential/Congr Interest	O&S			Deleted		
Natural	Consultation	Consultation, ESA Section 7	O&S	Natural	Consultation	Consultation, ESA Section 7	O&S	
Natural	Mit Sites	Monitoring, T&E Species	O&S	Natural	Mit Sites	Monitor, Species, (List Species)	O&S	Title change
Natural	Mit Sites	Monitoring, Wetlands	O&S	Natural	Mit Sites	Monitor, Wetlands	O&S	Minor change in title
Natural	Mit Sites	Restoring, Native Ecosystems	O&S			Deleted		
Natural	Mit Sites	Restoring, T&E Species	O&S			Deleted		

Disposition of Previous Project Titles								
20 Aug 99 Version of AFMC Standardized Environmental Programming Guidance (FINAL)				Current Version of AFMC Standardized Environmental Programming Guidance				Comments
I&S Media	I&S Activity	Previous Title	Class	I&S Media	I&S Activity	Approved Title	Class	
Natural	Mit Sites	Restoring, Wetlands	O&S			Deleted		
				Natural	Mit Sites	Mgt, Habitat, (List Habitat Type)	O&S	New project title
				Natural	Mit Sites	Mgt, Invasive Species Control	O&S	New project title
				Natural	Mit Sites	Mgt, Native Ecosystems	O&S	New project title
				Natural	Mit Sites	Mgt, Species (List Species)	O&S	New project title
				Natural	Mit Sites	Mgt, Wetlands/Floodplain	O&S	New project title
				Natural	Mit Sites	Monitor, Habitat (List Habitat Type)	O&S	New project title
				Natural	Mit Sites	Public Awareness, Natural	O&S	New project title
Natural	NR	Biological Assessments, ESA	1	Natural	Consultation	Biological Assessments, ESA	1	
Natural	NR	Inventory, Baseline NR	1	Natural	Updt Inv	Inventory, Baseline NR	1	
Natural	NR	Inventory, T&E Species	1	Natural	Updt Inv	Inventory, T&E Species	1	
Natural	NR	Inventory, Wetlands	1	Natural	Updt Inv	Inventory, Wetlands	1	
Natural	NR	Plan Revision, INRMP	1	Natural	Updt Pln	Plan Revision, INRMP	1	
Natural	NR	Plan Revision, INRMP Component	1	Natural	Updt Pln	Plan Revision, INRMP Component	1	
Natural	NR	Protect/Restore, T&E Species	1	Natural	Mit Sites	Protect/Restore, T&E Species	1	
Natural	NR	Protect/Restore, Wetlands	1	Natural	Mit Sites	Protect/Restore, Wetlands	1	
				Natural	Mit Sites	Protect/Restore, Native Ecosystems	1	New project title

APPENDIX C
LEVEL OF SERVICE GUIDANCE

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LEVEL OF SERVICE GUIDANCE

AFMC LEVEL OF SERVICE STANDARDS FOR CULTURAL RESOURCES
2 February 2001

Introduction

The following Level of Service (LOS) standards are a supplement to the Air Staff guidance transmitted in HQ USAF/ILE memorandum of 11 Sep 00 (HQ AFMC/CE Memo, 24 Oct 00). This guidance must be used in conjunction with the *Air Force Materiel Command Standardized Environmental Compliance and Conservation Programming Guidance (SPG).* It serves as a bridge from Air Force Instruction (AFI) 32-7065 to the SPG.

For each approved title, there is a legal driver, the required level of service, an expanded level of service, and the recommended procedure.

Title. These are the accepted line item titles for cultural resources projects in the SPG.

Legal Driver. Includes a brief definition of the legal driver that requires Air Force action to comply with the cited law or regulation. The primary drivers are Federal laws such as the National Historic Preservation Act and Archaeological Resources Protection Act. Secondary drivers include AFI 32-7065 and DOD policy or policy letters such as the 1998 DOD American Indian Policy Principles.

Required Level of Service. All of the project categories have a Required LOS. These requirements should be, as they say, "no brainers." The requirement is well defined in the legal driver and the project description (in the ACES-PM and EQ databases) describes work that obviously meets the requirement. In essence, it consists of the minimum activity needed to fulfill this requirement and is easily defendable under the law and USAF funding policy. Requirements identified in an MOA or Memorandum of Understanding (MOU) with another agency are also included in this category, as long as HQ AFMC/CEVC reviewed these agreement documents.

Expanded Level of Service. In addition to a Required LOS, some project categories may also have an Expanded LOS. Activities defined as "expanded" are those described as "above and beyond" the Required LOS. They are normally not as easily defendable as being necessary to fulfill this requirement within the legal driver. These activities may also involve implementing concepts or generic goals that are open to interpretation, such as writing cultural resources popular reports to fulfill Public Awareness requirements or conducting oral history interviews as part of the Evaluation, Archaeological Site process. The Expanded LOS is not Level 2 or 3 work but rather work that requires additional description, justification and coordination to show why it is needed to comply with a legal driver. Some legal drivers may be ambiguous or vague in clearly defining the Air Force's role in complying with the requirement. The Expanded LOS allows the manager to program these requirements. Activities meeting the Expanded LOS definition will take additional coordination and validation to justify Air Force funding. In general, they are a low funding priority and will be funded only after all Required LOS activities are covered. Therefore, it is likely that many will become unfunded requirements.

Recommended Procedure. Procedures for complying with the requirements are provided. Installations can use their own procedures, as long as the end result produces compliance with the requirement.

NOTE: the project titles are divided into either recurring (O&S [Operation and Support]) or nonrecurring (Level 1) categories depending on their placement in the SPG. All of these project titles, though, can be used for either O&S or Level 1 requirements. Separate records should be created for recurring and nonrecurring requirements with the same project title (such as Consultation, section 106)--O&S and Level 1 requirements should not be included in the same record.

O&S (Recurring) Requirements

1. Title: Public Awareness, Cultural

Legal Driver: The ARPA and AFI 32-7065 require installations to implement public education programs to increase awareness of the significance of Archaeological resources and the need to protect them, and to train all Air Force personnel in cultural resources stewardship.

Required Level of Service: Increase awareness of base historic property significance and the need to protect these resources.

–Produce cultural resources brochures and/or a video that are presented at base newcomers' orientation.

–Conduct environmental training sessions for select base personnel from organizations that can impact or help preserve cultural resources such as Security Forces (SF), Civil Engineering (CE), and various training squadrons.

—Train SF personnel to monitor historic properties as part of their normal base duties and enforce cultural resources laws.

—Educate CE personnel about their management responsibilities for historic buildings and the proper procedures for protecting resources during ground disturbing activities.

–Initiate cultural resources education and awareness for the public at organized events. This requirement is for those installations that have one of the following types of public access or situation:

—Nonsecure base/range boundaries (i.e., areas that are not fenced or patrolled) where unrestricted public access is possible.

—Organized events open to the public such as hunting, fishing, outdoor recreation programs.

—Areas on base that are visited by the public, such as cemeteries, sacred sites and Traditional Cultural Properties, museums, outdoor displays.

—Areas where there is evidence of public disturbance or destruction to historic properties through vandalism or other activities (such as off-road vehicle use).

Expanded Level of Service: Other types of public awareness projects can also be considered, but they are not a high priority for funding. These activities provide general cultural resources information to the base or public that are not directly related to protection and preservation of base historic properties.

–Preparation and/or updating of interpretive displays (static and traveling) (Air Force Conservation Programming and Budget Guidance [CPBG] includes as Level 3 so must be well justified),

–Newspaper and magazine articles,

–Web pages development and/or upkeep,

–Informational mailings,

–Interpretive signs at historic sites/districts,

–Public relations media for Archeology Week (such as posters),

–Cultural resources classes/presentations (for schools or the public), and

–Popular publications.

Recommended Procedure:

–Prepare a trifold brochure and/or video that briefly describes the base cultural resources (and their importance), laws, and base personnel's responsibilities. Stress the impact on resources of such potentially destructive activities as artifact collecting, metal detecting, and off-road vehicle (ORV) use. Large numbers of brochures can be printed and given to each new employee, but a video is also an excellent media because it has a greater impact on the audience (since they usually have to watch it, and they may not read a handout). Brochures and videos should be reviewed every 3 years and revised or updated if there are major changes in the base program or cultural resources laws and regulations.

–Annual specialized training should be provided for those base personnel who have more need to know about cultural resources. These can include personnel from SF who can assist in law enforcement and monitoring, CE who are involved in most base undertakings, or organizations involved in training operations that may include ORV or other potential cultural resource disturbing activity. The agenda should include a review of cultural resources laws and the Federal employee's responsibilities in abiding by these laws. Classes should be structured to the intended audience and provide them with a respect for the resource and an understanding of the process and how it affects their job.

–Public education and training must be designed in the way that best reaches the applicable people. If the base has a vandalism problem, displays and brochures at events such as annual Indian Powwows might reach people interested in collecting artifacts. For organized programs such as hunting, fishing, and outdoor recreation, or the authorized visitation to base facilities (such as cemeteries and Traditional Cultural Property [TCPs]), the base can require that all participants receive a cultural resources brochure or brief training session as part of the registering or request process.

2. Title: Consultation, American Indian

Legal Driver: The American Indian Religious Freedom Act (AIRFA), Native American Graves Protection and Repatriation Act (NAGPRA), and the 1998 DOD American Indian Policy Principles require installations to recognize Indian rights of access to sacred sites and objects, initiate and maintain government-to-government relations with recognized tribes, and establish Indian ownership of human remains and associated funerary items.

Required Level of Service:

–Complete NAGPRA inventory

—The CPBG states "such inventories still outstanding should be completed as soon as possible."

–Establish and maintain government-to-government relations with all federally recognized American Indian tribes with cultural, religious, or historical connections to lands affected by the military mission.

—The CPBG states that government-to-government relations projects "can be supported if they are necessary to meet legal requirements or commitments agreed to in a Programmatic Agreement [PA] or Memorandum of Understanding [MOU]."

—Government-to-government relations and consultation shall be conducted by a USAF employee (preferable the cultural resources manager).

Expanded Level of Service: Other types of consultation projects can also be considered, but they are not a high priority for funding. These include:

–Sacred Site (SS) or traditional cultural property (TCP) inventories and

–Ethnographic surveys (research and oral histories).

Recommended Procedure:

–Each installation should have conducted an inventory to locate and identify any NAGPRA artifacts. If any were identified, negotiations should be conducted to repatriate these items to those tribes with a legal ownership claim.

–The government-to-government process consists of the following steps.

—Identify tribes who have historic or current ties to the base locale. Local Bureau of Indian Affairs (BIA) offices have lists of federally recognized tribes and maps showing their areas of interest. Other government agencies in the local area can also be contacted, since they may have already initiated the process and have hints on how to proceed.

—Contact each tribe with a certified letter of introduction from the base commander to the tribal leader. This letter should include a map of the installation, an explanation of the mission and cultural resources program, a list of POCs, and an invitation to meet and address issues and concerns about the base. If no response is received within a month, follow up the letter with a telephone call to ensure the tribe has been contacted.

—For interested tribes, set up either a base visit and/or a meeting at a tribal facility. If many tribes are involved, meet with each one-on-one initially, but consider annual joint meetings in the future.

—If a tribe identifies or wishes access to sacred sites or TCPs on base property, or wants to be involved in the NEPA process, work with them to create an MOU that establishes the agreed upon ground rules to the relationship. This is critical if the base will fund certain aspects of the relationship (such as Indian travel).

—If human remains or NAGPRA artifacts are recovered, negotiate repatriation with the appropriate tribe.

3. Title: Monitor, Historic Property

Legal Driver: The NHPA and ARPA require installations to maintain and preserve the cultural values of significant historic properties and prevent the loss and destruction of such properties.

Required Level of Service: [this is an O&S project because it involves continuous monitoring of the same historic properties].

–Monitor and protect all historic properties that are being impacted by natural and/or cultural agents.

–Conduct biennial inspections of all National Historic Landmark properties.

Expanded Level of Service: There is no requirement for Expanded LOS.

Recommended Procedure:

–Periodically monitor and inspect historic properties that are being vandalized, eroded, or impacted by mission activities. Initiate the assistance of other base and range users who work in remote areas such as Security Forces, Explosive Ordnance Disposal (EOD) personnel, or range riders. Once impacts are noted on a historic property, methods to protect the property should be initiated. It is important to remember that CE is responsible for maintaining historic facilities that are in use or occupied. In cases where one of these facilities is being disturbed through modifications or maintenance, the protective method should be coordinated through CE.

—For vandalism, notify Security Forces and/or the Air Force Office for Special Investigations and initiate a patrol schedule. Electronic monitors can also be used in remote areas where patrols are not possible.

—For mission impacts, attempt to locate and educate the culprits. Signage can also be effective. It is recommended that the base commander authorize KEEP OUT signs so that the words "by order of the base commander" can be used on the sign (disobeying a direct order is easy to prosecute). DO NOT identify the resource as an historic property because this only draws attention to it.

—For major erosion and other natural disturbances (such as grazing), establish protective methods such as erosion control or fences. One-time protective/mitigation methods should be requested under the Protect, Historic Property line item (Level 1).

–NHL-listed properties must be inspected biennially to determine their condition as required by the National Park Service (NPS). The NPS has monitoring responsibilities for National Historic Landmarks (NHL) properties and must complete a report to Congress every 2 years. A copy of the required NHL property condition form should be kept on file at the base. Any impacts found to the properties shall be corrected.

4. Title: Curation, Base/Curation, Museum

Legal Driver: 36 CFR 79 requires installations to preserve Archaeological collections and associated records and house them in an acceptable repository.

Required Level of Service:

–Ensure long term "curation and maintenance of Air Force cultural resources collections and records" (in a facility that meets the requirements set forth in 36 CFR 79).

—Edwards and Eglin must ensure their base-administered curation facilities meet Federal standards and collections are periodically inspected.

–Have a complete inventory of all base-owned collections and ensure they are properly packaged and preserved.

–Have curation agreement, MOU, or PA with private facility or curation plan for base-administered facility.

Expanded Level of Service: There is no requirement for Expanded LOS.

Recommended Procedure: Bases should curate all USAF-owned collections and records in a single location. The recurring activity consists of curation fees or annual costs associated with administering a base facility. Per the CPBG, Level 1 levels of effort for this line item include "Curation assessment, inventory and periodic inspection of cultural resources collections." The CPBG and 36 CFR 79 do not define "periodic," so this must be determined by the installation and the Curation Facility managers based on the character of the collections. Perishable items should be inspected and assessed more often than nonperishable items.

–Locate all base-owned Archaeological collections and records. In many cases, collections are in various curation facilities or with contractors, or are in cabinets and drawers at the base. The St. Louis Corps of Engineers (COE) conducted an inventory of all USAF base collections circa 1997. This report can be used as a starting point to determine where all collections are located. (To acquire a copy of that portion of the report relating to your base, contact St. Louis Corps of Engineers, 314-331-8831).

–Complete an inventory for all collections and records.

–Negotiate a curation agreement with an appropriate Curation Facility (hopefully, one in state and easily accessible to the base). The St. Louis COE can help determine which facilities are adequate.

–Prepare a curation agreement that includes an inventory of the artifacts and annual cost for curating them (normally there is an established cost per cubic feet of collections and linear feet of records). This agreement shall include a specified time frame for periodic inspections of the collections.

–Keep a duplicate set of records such as site forms, survey reports, and resource location information in a secure location on base. "Secure" is defined as a place that protects the records from cultural and natural elements such as theft, rodents and bugs, and fire (i.e., such as locked fireproof cabinets or a safe).

–Funding can also be provided for preparing new collections for curation, although these expenses should be part of the project that recovered them (such as Inventory, Archaeological or Evaluation, Archaeological Site line items).

Class 1 (nonrecurring) Requirements

5. Title: Consultation, Section 106

–This project is considered a Level 1 recurring line item. It is an annually recurring requirement, as with EIAP, but it is programmed as a Level 1 because the section 106 work is conducted for different, rather than the same, undertakings each year.

Legal Driver: The NHPA and NEPA require installations to preserve and administer the cultural resources under its control and consider the effect of its actions on these resources.

Required Level of Service:

–Review all base EIAP documents (Air Force [AF] Forms 103, 332, 813, 1391, Environmental Assessments [EAs], Environmental Impact Statements [EISs], and Environment Baseline Surveys [EBSs]), as applicable, to ensure that cultural resources are considered during base undertakings. The base cultural resources manager shall ensure that the base EIAP adequately addresses cultural resources, if they are not required to review all EIAP documents as part of that process.

–Prepare a PA with the State Historic Preservation Office (SHPO) to ensure the section 106 process is conducted when required and is cost effective (i.e., a base is not doing more than it is required to do). The PA should be attached to your Cultural Resources Management Plan (CRMP).

Expanded Level of Service: There is no requirement for Expanded LOS.

Recommended Procedure: The base cultural resources manager shall conduct the section 106 process unless the workload exceeds the capabilities of this individual. In this case, the process may be contracted out to a professional cultural resources company.

–Establish a procedure within your Environmental Management (EM) or Environmental Compliance Branch (CEV) office so that cultural resources are addressed during the review of all EIAP documents either by the cultural resources manager or another qualified EM/CEV employee.

–Establish a PA through coordination with the SHPO that outlines which actions need and don't need formal consultation and identifies which types of undertakings will be coordinated through their office. Many types of projects, such as disturbing previously disturbed areas or minor building maintenance, do not require SHPO coordination. The goal is to evaluate and coordinate only those projects that will have an affect on historic properties. The PA should also include a consultation process acceptable to both parties.

–Establish or maintain a tracking system, such as an Excel Spreadsheet, for all section 106 actions. It should track all SHPO correspondence (especially dates of correspondence and SHPO response, or lack of the 30-day rule). It should also track section 106 projects and reports (inventories, mitigation, documentation, for example) and provide up-to-date cultural resources mapping (Geographic Information System [GIS] is preferable).

6. Title: Evaluation, Archaeological Sites

Legal Driver: The NHPA requires installations to identify and formally evaluate National Register eligibility for all cultural properties under its jurisdiction.

Required Level of Service:

-Evaluate the NRHP eligibility of all documented Archaeological sites.

Expanded Level of Service: There is no requirement for Expanded LOS.

Recommended Procedure: All documented Archaeological sites must be evaluated for NRHP eligibility so that the base is only protecting those that are eligible or on the NRHP; and ineligible properties are no longer receiving management consideration.

-Compile a database with all documented Archaeological sites that includes the NRHP eligibility as agreed to by the SHPO.

-Initiate a strategy to determine the NRHP eligibility of the unevaluated or potentially eligible sites. For instance, if there are 200 unevaluated Archaeological sites, evaluating 50 per year over a 4-year period is realistic. This strategy should be established in the most cost and time effective manner. Work with the SHPO to determine a sample strategy so that all sites do not need expensive test excavations to determine eligibility. For example, if you have 100 small sherd and lithic scatters or 100 one-room field houses, test 25 of them to determine the eligibility of all of them.

-Get written SHPO concurrence for all NRHP eligibility recommendations and keep a copy of the concurrence letter with the site form.

7. Title: Inventory, Archaeological

Legal Driver: The NHPA requires installations to identify historic properties under its jurisdiction and the 1995 USAF policy letter *Revised Goals for Natural and Cultural Resources Inventories and Management Plans* established deadlines for completion of the basewide inventories.

Required Level of Service: This line item considers section 110 inventory only.

–Complete 100 percent inventory of base-administered property that has the potential to yield intact cultural remains on all small and medium-sized bases (less than 100,000 acres).

–Complete 100 percent inventory of a minimum of 25 percent of base-administered property on bases and ranges with large land holdings (more than 100,000 acres). Ranges must have written agreements with the SHPO for sample surveys.

Expanded Level of Service: Range bases can continue inventories beyond the 25 percent sample survey, but this is not a high priority for funding.

Recommended Procedure: All base-administered property, or a sample of large tracts, should be inventoried so that mission requirement decisions can be made without concern about historic property disturbance.

–Determine base-administered acreage through the base Real Property Office. This should include land owned by DOD (fee-owned), leases, easements, withdrawn, and in-grant lands where DOD is responsible for protecting cultural resources during undertakings. Make sure that all geographically separated units (GSUs), such as off-site radar facilities, are included in the final determination. Determine how much of the acreage is unimproved or semi-improved and has potential for Archaeological sites. Unimproved lands should be considered for inventory unless through previous Archaeological research it has been determined to have low potential for cultural resources (including low sensitivity areas). Semi-improved lands, including lawns and landscaped areas, may need inventory depending on the amount of subsurface disturbance and the types of Archaeological sites normally found in the region (i.e., buried sites that might not be destroyed by surface disturbance). Improved, some semi-improved and low sensitivity areas (such as lakes, riverbeds, salt flats, or steep slopes) do not need inventory in most cases. These areas should be identified in the section 106 PA with the SHPO.

–For installations with 100,000 acres or less, complete 100 percent inventory of those unimproved lands using state-accepted standards for this level of survey. The CPBG states "The requirement is to survey Air Force lands for Archaeological resources and locate, document, and determine those eligible for listing, or potentially eligible for listing, on the National Register of Historic Places."

–For installations with over 100,000 acres, establish a sample survey strategy in coordination with the SHPO and inventory 25 percent of high sensitivity areas (a percentage professionally accepted as an adequate quantity for predictive modeling purposes). Focus should be on areas with the highest potential for impact from military mission activities. The CPBG states "[O]n large installations, sample surveys and predictive models may be used in conjunction with more intensive sampling techniques."

–Get written SHPO concurrence for adequacy of inventories and agreement that the base section 110 requirement has been addressed. No further inventory should be necessary at those bases with less than 100,000 acres, because all acreage has either been inventoried or excluded. Section 106 inventory may be required on the unsurveyed portions of large bases where sample surveys were completed, dependent

on the agreed upon strategy in the PA. The PA should explicitly identify what level of inventory is required for these unsurveyed lands. For instance, if the sample survey results indicate a certain landform or environmental zone has very low potential for Archaeological sites, then the unsurveyed acreage in these zones should be excluded from future section 106 considerations. If a certain landform has a high density of Archaeological sites, it must receive section 106 consideration during an undertaking.

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8. Title: Inventory, Building

Legal Driver: The NHPA requires installations to identify historic properties under its jurisdiction and the 1995 USAF policy letter *Revised Goals for Natural and Cultural Resources Inventories and Management Plans* established deadlines for completion of the basewide inventories.

Required Level of Service: This line item considers section 110 inventory only and NRHP eligibility determinations.

–Document all 50-year-old facilities on base-administered property.

–Document less than 50-year-old facilities that had a direct association with the Cold War in accordance with (IAW) the USAF *Interim Cold War Guidance*.

–Evaluate the NRHP eligibility of all documented base facilities constructed prior to 1990 (per the first two bullets)

Expanded Level of Service: All base buildings, regardless of age or association with the Cold War, will eventually reach the 50-year mark and must be documented. The inventory of buildings constructed after 1989 or those Cold War facilities that are less than 50 years old but are determined to not be directly associated with the conflict can be documented, but this is not a high priority for funding.

Recommended Procedure: All base-administered real property constructed prior to the end of the Cold War (up through 1989) must be considered for inventory/documentation and NRHP eligibility evaluations so that mission requirement decisions can be made without concerns about historic property disturbance. The CPBG states "The requirement is for an inventory of all properties on the installation to determine those that are eligible or potentially eligible for listing on the National Register of Historic Places."

–Determine the construction date of all buildings and structures through the base Real Property Office. This should include all facilities owned by DOD, even if they are in use by contractors or tenants. Make sure that buildings on GSUs are also included.

–Prepare a base historic context for use in determining the NRHP eligibility of the buildings.

–Conduct, at a minimum, Historic American Building Survey/Historic American Engineering Record (HABS/HAER) Level IV documentation (or a comparable method) on all 50-year-old buildings and determine their eligibility. If there are a large number of the same building type, such as housing units, determine a sample strategy in coordination with the SHPO and document only a representative sample.

–Not all Cold War buildings and structures must be documented before they reach the 50-year mark. Before any documentation is completed, the USAF *Interim Cold War Guidance* should be consulted to determine which classes of buildings do not need immediate consideration. Buildings that must be documented before they reach the 50-year mark are those that are directly associated with the Cold War such as missile launch sites, command centers, radar and communications facilities, or research and test facilities. "Direct association" can be interpreted as those facilities that were constructed because of the Cold War. Facilities that do not need to be documented are those that are not directly associated with the Cold War, or would have been constructed whether the Cold War was there or not. These include housing and dorm units, chapels, base exchanges and commissaries, garages.

–There are two strategies for conducting Cold War inventories.

—Since Cold War facilities must be inventoried as they reach the 50-year mark, the first strategy is to annually complete work on properties constructed during specific years. For instance, inventory buildings constructed in 1951-1955 in FY00, do 1956-1960 in FY01. In this manner, buildings are documented before they reach 50 years.

—The second method is to classify all Cold War facilities by importance and inventory the most important first. For example, certain buildings either stand out or have functions that make their direct association with the Cold War unquestionable. These include blockhouses, launch ramps, and silos associated with missile testing; research and development laboratories; intelligence facilities (such as radar sites); and first alert hangars.

—Focus should be on facilities with the highest potential to be impacted from military mission activities.

—Get written SHPO concurrence for adequacy of inventories and documentation and NRHP eligibility recommendations (including those facilities excluded from documentation for the reasons cited above).

NOTE: All Cold War facilities must be documented once they become 50 years old, regardless of whether they were directly associated with the Cold War. At this point they become cultural resources and must be documented and evaluated as such. Therefore, they can be evaluated for NRHP eligibility twice: once as a potentially exceptional, less-than-50-year-old property and once when they reach the 50-year mark and become a cultural resource.

9. Title: National Register Nomination

Legal Driver: The NHPA requires installations to nominate to the National Register all properties that may qualify.

Required Level of Service: Nominate to the NRHP all historic properties or districts considered exceptional examples of their kind at either a local or national level.

Expanded Level of Service: All properties eligible to the NRHP can be nominated, even if they are eligible only because of the "potential to yield information" (the category in which almost all Archaeological sites fall). This is not a high priority for funding.

Recommended Procedure:

–Determine the NRHP eligibility of all cultural properties (see Evaluation, Archaeological Sites and Inventory, Building line items). To adequately do this, an historic context must be compiled for the prehistoric and historical cultural periods represented in the base's cultural resources inventory.

–For eligible properties and districts, determine which are exceptional examples of their type at the local or national level. The base must make the initial determination and get concurrence from HQ AFMC/CEVC before beginning the nomination process. This normally occurs as part of the ACCESS validation process. Exceptional properties are defined as those that may:

—Represent the type site for a time period or cultural affiliation;

—Represent the only, or one of a few, sites of that time period or cultural affiliation or with a specific type of feature or artifact;

—Reflect the extraordinary impact of a political or social event;

—Be so fragile that survivors of any age are unusual;

—Have a developmental or design value recognized as historically significant by the architectural or engineering profession; or

—Reflect the range of resources for which a community has an unusually strong associative attachment.

–Prepare NRHP nomination packages for the properties. If possible, use District or topical nominations and nominate like properties together, rather than a separate nomination package for each property.

–Coordinate the package through the MAJCOM for approval.

–The MAJCOM coordinates the package through Air Staff, who in turn sends it to the National Park Service.

NOTE: Since historic districts are usually composed of a cultural landscape, they can include properties that individually would not be considered exceptional but are an integral part of the district. Therefore, not every property in the district must be individually exceptional.

10. Title: Plan, CRMP/Plan Revision, CRMP

Legal Driver: The NHPA and AFI 32-7065 require installations to develop and use cultural resource management plans that establish program procedures and guidelines, and to revise the plan every 5 years.

Required Level of Service:

–Keep the CRMP up-to-date and have it reviewed by the Judge Advocate (JA) and signed by the base Commander, SHPO, and MAJCOM cultural resources manager every 5 years. The plan shall be updated annually in-house and funding is only provided for the 5-year revision. For those bases with an A-76 contractor as the cultural resources manager, this task should be part of their duties.

–Must have a signature sheet showing annual updates and 5-year revision.

Expanded Level of Service: There is no requirement for Expanded LOS.

Recommended Procedure:

–Prepare a CRMP that meets the requirements set forth in AFI 32-7065. The CRMPs can be produced in electronic or hard copy format. For the former, it must be in an electronic format accessible to all parties that must use it. For the latter, it is recommended that the document be in a three-ring binder for easy annual updates.

–Have a signature sheet and an annual review sheet at the front of the document. The signature sheet is for the 5-year revision and includes signatures of the base Commander (or appointed representative), SHPO, and MAJCOM cultural resources manager. The annual review sheet should have four sections for each year of required updates (the fifth year being the revision). This section should be completed annually and signed by the base cultural resources manager (or appointed representative) and include a signature, date, and list of revisions by page number.

–Annual updates should include minor changes such as numbers of eligible sites and buildings or eligibility status of properties. If there are no changes, this should be stated and a signature and date are still required to show the document was reviewed.

–The 5-year revision should include major changes such as new mission requirements or updated or revised laws and regulations. Changes should consist of replacing individual pages in the electronic version or the three-ring binder rather than a complete rewrite of the document. If the CRMP is currently spiral bound, the update should convert it to a three-ring binder or an electronic version. If no changes are needed, it still must be coordinated again with the JA, base Commander, SHPO, and MAJCOM and a new signature sheet should be completed.

NOTE: The CRMP is not valid without the appropriate signature sheet. The SHPO should be included in the document review process, but their signature is not required to implement the document. Their signature is required only as evidence of their review and concurrence with the document.

11. Title: Protect, Historic Property

Legal Driver: The NHPA and ARPA require installations to maintain and preserve the cultural values of significant historic properties and prevent the loss and destruction of such properties.

Required Level of Service:

–Ensure the protection and preservation of all historic properties on the installation.

–Monitor those sites in high impact areas and mitigate the effects of natural and cultural disturbances so that there are no adverse effects through neglect.

Expanded Level of Service: There is no requirement for Expanded LOS.

Recommended Procedure:

–Periodically inspect base historic properties to determine which, if any, are being vandalized, eroded, or impacted by mission activities. Sites that are receiving ongoing impacts should be monitored as part of the "Monitor, Historic Properties," line item number 3.

–Once impacts are noted on a historic property, methods to protect the property should be initiated.

—For vandalism, notify SF and/or the Air Force Office for Special Investigations and initiate a patrol schedule. Electronic monitors can also be used in remote areas where patrols are not possible.

—For mission impacts, attempt to locate and educate the culprits. Signage is also effective.

—For major erosion and other natural disturbances (such as grazing), establish protective methods such as erosion control or fences.

—For all impacts, repair/stabilization or cleanup efforts should be initiated if they are necessary to preserve property integrity. If it is determined that there is no cost-effective method to stabilize a property, data recovery should be considered as an alternative method. Not all properties can be preserved in place. For aboriginal sites, interested American Indian tribes should be contacted when determining protective methods. In some cases, these tribes may not wish that a site be stabilized from natural agents (such as erosion).

—For impacts, such as demolition through neglect, on historic buildings that are being used for the base mission, the base cultural resources manager shall ensure that CE conducts the proper maintenance or repair. CE is responsible for maintaining the historic integrity of buildings that are in use, and they shall be provided with the proper guidance for ensuring that historic buildings retain their integrity through proper management. Conservation funding can only be used for protecting abandoned buildings that are no longer under the care of CE.

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APPENDIX D
CULTURAL RESOURCES STANDARD OPERATING PROCEDURES AND MANAGEMENT STANDARDS AT EDWARDS AFB

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CULTURAL RESOURCES STANDARD OPERATING PROCEDURES AND MANAGEMENT STANDARDS AT EDWARDS AFB

This section outlines the BHPO's accepted fieldwork and recording practices. All cultural resource contractors performing work at Edwards AFB must conform to the following methods and standards. Figures D-1, D-2, and D-3 depict the standard operating procedures in each phase. Deviation from these practices may occur, but only if an alternative research design has been approved by the BHPO. The information in this chapter is condensed from the following document. Where references are cited in this text, please refer to this document for complete reference information.

Ronning, M. R., M.D. Pittman, and J. Underwood, 2000, *Cultural Resources Overview and Management Plan for Edwards AFB, California, Volume 3: Cultural Resources Management Plan,* Computer Sciences Corporation, Edwards Air Force Base, California; submitted to the Air Force Flight Test Center, Base Historic Preservation Office, Edwards Air Force Base, California, Contract No. F04611-92-C-0045. On file at the Base Historic Preservation Office, Edwards Air Force Base, California.

1.1 Phase I Archaeological Inventory SOP

1.1.1 Background Research

Before beginning fieldwork, archeologists, historians, and architectural historians should conduct a literature search of cultural resource records and reports on file at the BHPO in order to review existing information concerning cultural resource inventories previously undertaken within the project area. The BHPO's records duplicate and exceed records maintained by the State Archaeological Information Centers concerning Edwards AFB; therefore, site information will not be researched at the State Archaeological Information Centers without prior approval of the BHPO.

It is important to identify areas that were previously surveyed as these areas are not to be resurveyed unless otherwise directed by the BHPO. Researchers should review the records of any previously located cultural resources in the project area and consult with the BHPO to determine if any site records need to be updated as part of the current effort. Background information will allow researchers to develop a model of an area's cultural resource sensitivity and provide them with an awareness of types of resources likely to be encountered.

In addition to survey reports and site records, researchers should review databases containing homestead and mining records maintained by the BHPO, historic maps on file at the BHPO, and the *Appraisal Report—Muroc Bombing Field, Muroc, California* (Karpe 1938). These sources will provide information about the historical sensitivity of an area and allow researchers to identify cultural remains encountered in the field.

1.1.2 Fieldwork Practices

Most areas of Edwards AFB have flat terrain and good ground visibility. Therefore, archeologists should survey project areas intensively using linear transects. Unless otherwise directed by the BHPO, the transect intervals between crewmembers should be no less than 10 and no more than 20 meters. The transect interval used is dependent on the amount of vegetation in the survey area; narrower transect intervals should be used in areas with dense vegetation, and wider intervals should be used in areas with light vegetation and excellent ground visibility.

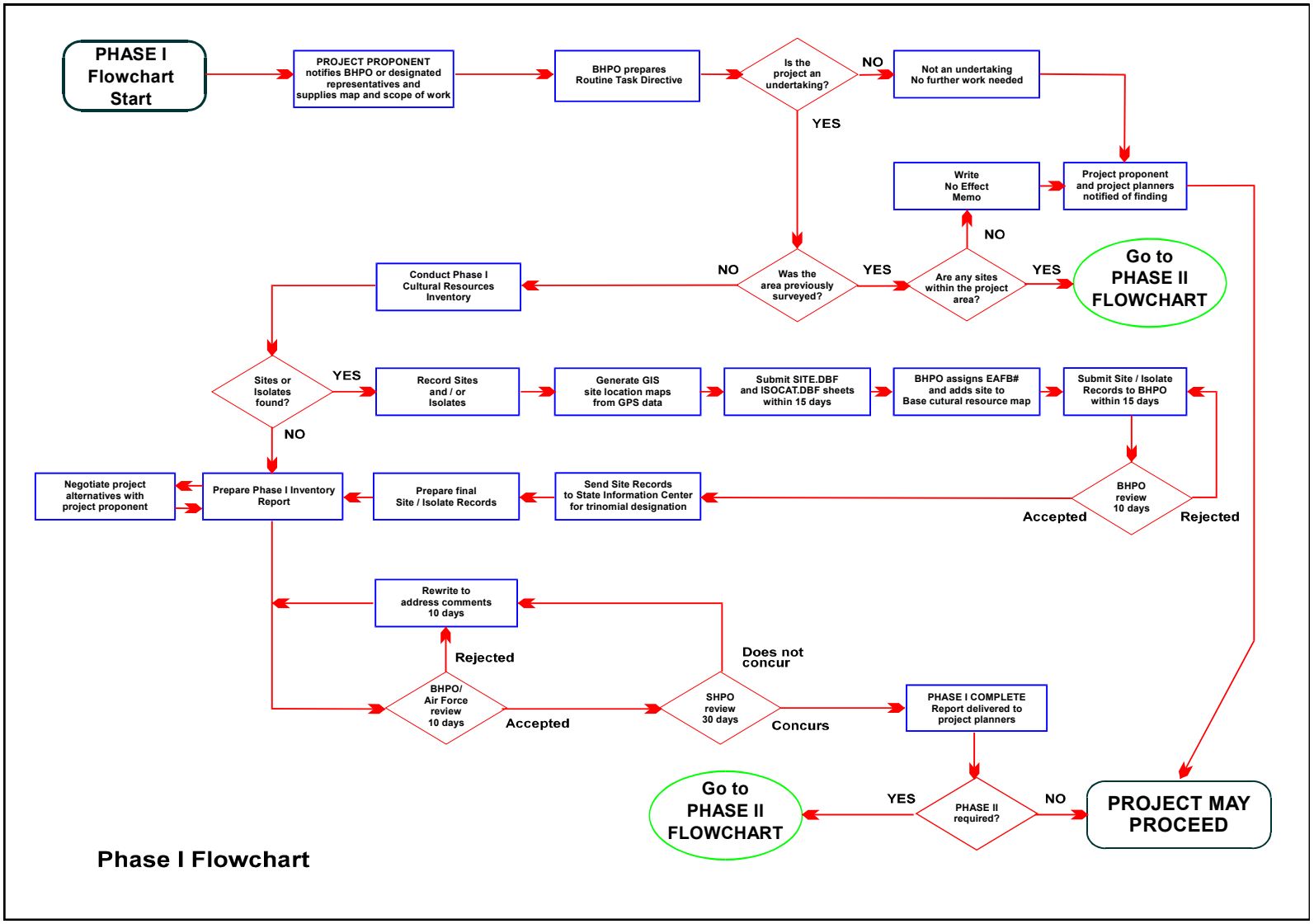

Figure D-1. Phase I Archaeology Process on Edwards Air Force Base

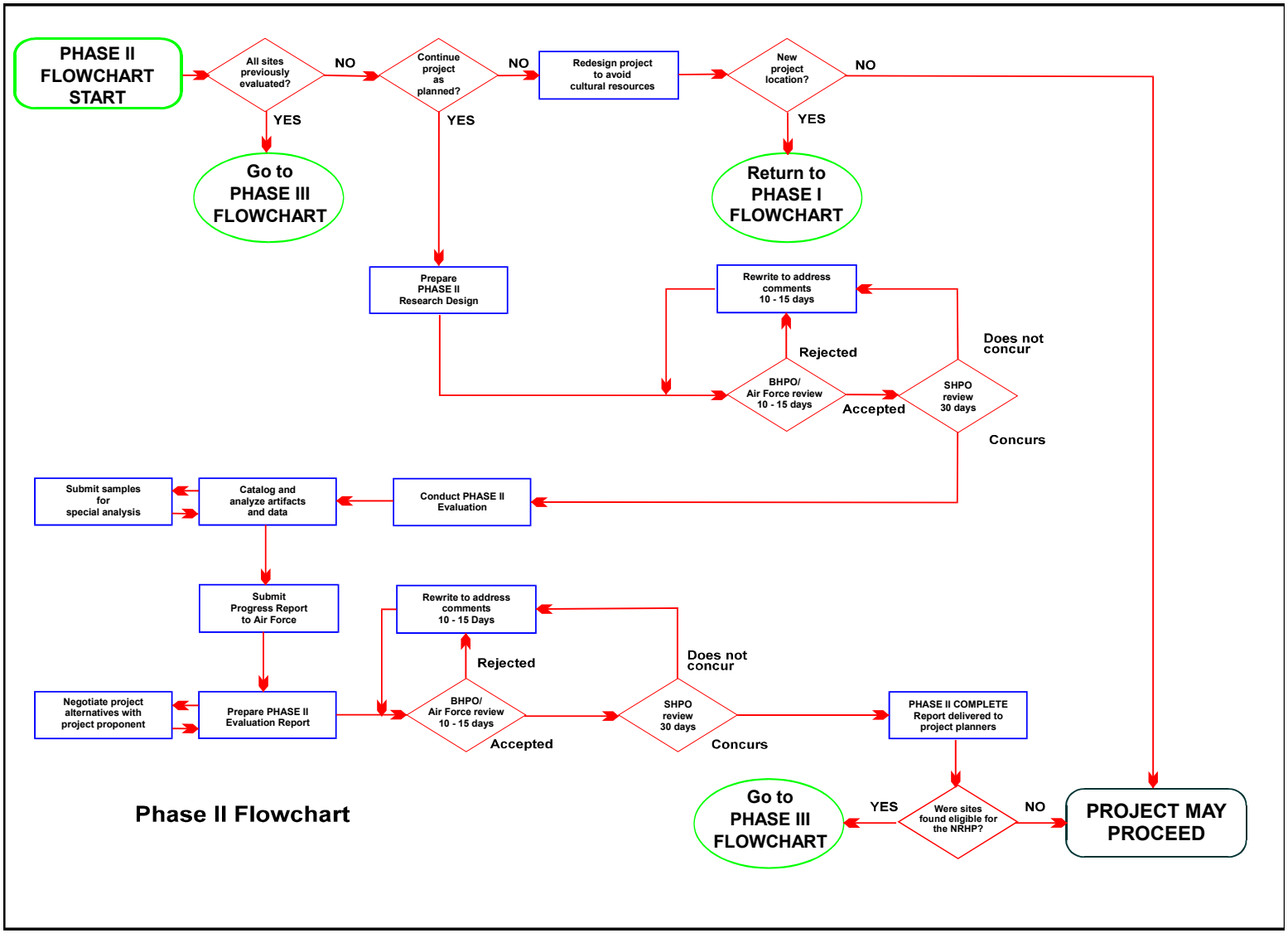

Figure D-2. Phase II Archaeology Process on Edwards Air Force Base

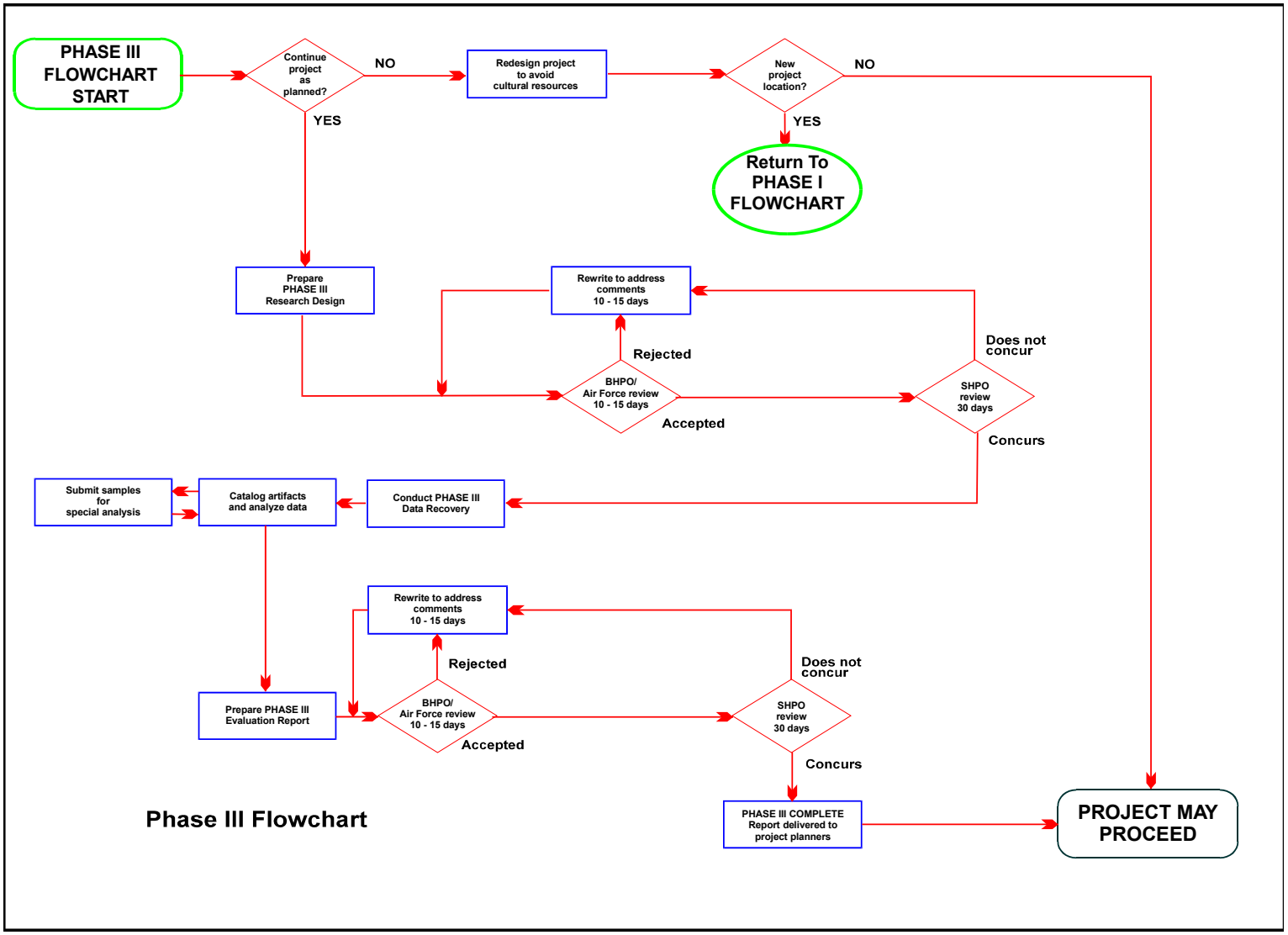

Figure D-3. Phase III Archaeology Process on Edwards Air Force Base

In accordance with SHPO standards, a site is defined as any identifiable feature, or a minimum of three associated artifacts separated by no more than 50 meters. The feature or artifacts must be at least 45 years of age. Temporary site datums will be established for all sites. The datum will be marked by a wooden stake or polyvinyl chloride (PVC) pipe with a soft metal tag attached. Both the stake itself and the metal tag will be permanently labeled with the site's temporary number and the date. Temporary numbers will be assigned based on the project number and the order in which the sites are found (e.g., 96-045.1, 96-045.2; or 96-D.1, 96-D.2). Sites will be recorded using standard Archaeological techniques. Site boundaries, features, collected artifacts, and the site datum will be mapped, and a Global Positioning System (GPS) will be used to plot the datum of each site as describe in GPS Guidelines, section 1.4. Sites will be photo documented, preferably using 35-millimeter, color slide film.

Sites will be recorded in their entirety, regardless of project or survey boundaries. If a site is encountered on the way to a project or survey area, it will be recorded if it has not been previously recorded. However, in the case of historic period roads, it is not necessary to fully explore their extent on foot beyond the survey boundaries. Aerial photographs and maps may be used to determine the full extent and location of the road.

Isolated finds will also be recorded using standard Archaeological techniques and, when appropriate, a GPS unit to document their location as described in GPS Guidelines, section 1.4. Temporary isolate numbers will be assigned based on the project number and the order in which the isolates are found (e.g., 96-045.IF1, 96-045.IF2; or 96-D.IF1, 96-D.IF2).

Any diagnostic isolates, both prehistoric and historic, will be plotted, recorded, recovered, fully analyzed, described in the technical report, and subsequently turned over to the BHPO for curation. Artifacts will be collected from sites if they are the type of item, such as an arrowhead, coin, or bottle, that is likely to be collected by nonArchaeological personnel if found. An ISOCAT.DBF data entry sheet will be filled out for each collected artifact, and collected artifacts will be curated in accordance with the guidelines outlined in Curation, section 1.5. A manual explaining how to complete the ISOCAT.DBF data entry sheet is available from the BHPO.

1.1.3 Site and Isolate Records

State of California Department of Parks and Recreation (DPR)-523A primary forms and 523C Archaeological site record forms will be completed for each site discovered. Updated forms will be prepared for previously recorded sites if the BHPO judges the original form is inadequate.

The BHPO requires that the prehistoric and historic components of multicomponent sites be recorded on separate forms, although this may conflict with State Archaeological Information Center policies. Separate temporary numbers and Edwards AFB numbers will be assigned to each component, even if the site is granted only one trinomial. When a questionable situation occurs, such as the discovery of one large prehistoric site encompassing three historic period homesteads, the BHPO should be consulted before completing the site records.

Aircraft crash locations are assigned EAFB numbers by the BHPO and should be recorded using DPR-523A and 523C forms. However, the BHPO should be consulted before submitting the forms to the appropriate State Archaeological Information Center for a trinomial.

When a previously recorded site is encountered, a primary record form (DPR-523A) will be completed describing the site's current status and condition. A new DPR-523C form will not be completed unless there is no existing DPR-523C form for the site or a significant amount of new and/or different information was obtained.

A site less than but approaching 50 years of age, such as a 1955 era refuse deposit, will be informally recorded on a primary record form (DPR-523A), and its location will be plotted on a 7.5-minute United States Geological Survey (USGS) quadrangle.

Within 3 days of recording a site or structure, a SITES.DBF data record sheet will be filled out and submitted to the BHPO so that an EAFB site number may be assigned. A manual explaining how to complete the SITES.DBF data record sheet is available from the BHPO. Site record forms containing EAFB numbers are to be completed and submitted to the BHPO for review within 15 working days of completion of fieldwork. Following BHPO review, primary numbers and trinomials will be obtained from the appropriate State Archaeological Information Center. Final versions of site records will be submitted to the BHPO once primary numbers and trinomials are received. Both FINAL and final site records will be reproduced single-sided and delivered to the BHPO unbound. Electronic disk copies of final site record forms using BHPO-approved word processing software will be delivered to the BHPO, in addition to hard copies.

Primary record forms (DPR-523A) will be completed for each isolate discovered. Within 3 days of recording an isolate, an ISOCAT.DBF data entry sheet will be filled out and submitted to the BHPO so that an ISOCAT number may be assigned. Primary record forms containing ISOCAT numbers are to be completed and submitted to the BHPO for review within 15 working days of completion of fieldwork. Following BHPO review, the primary record forms will be sent to the appropriate State Archaeological Information Center. Information Center reference numbers and primary numbers will be obtained for all isolates. Final versions of primary record forms will be submitted to the BHPO once Information Center reference numbers and primary numbers are received. Both FINAL and final primary record forms will be reproduced single-sided and delivered to the BHPO unbound. Electronic disk copies of final primary record forms using BHPO-approved word processing software will be delivered to the BHPO, in addition to hard copies.

Primary record forms should not be filled out for military period cartridge casings or other ordnance. The locations and descriptions of these casings or ordnance are to be recorded on copies of the relevant USGS quadrangle and delivered to the BHPO.

1.1.4 Phase I Archaeological Technical Report

The BHPO intends to streamline the Phase I inventory process by reducing the length of Phase I technical reports. The prehistoric and historic cultural resources overviews and management plan are intended to provide the background information previously discussed in each survey report. Consequently, only brief reports summarizing the project, specific environmental settings, the findings, potential effects to cultural resources, and management considerations will need to be prepared. The AFFTC will formalize its intention to use survey summary reports instead of full Archaeological resource management reports (ARMRs) in a programmatic agreement that will be submitted to the SHPO and ACHP for concurrence.

At his discretion, the BHPO may still request complete ARMRs for large, complex survey projects. Where appropriate, these reports will conform with the SHPO standards as described in the *Archaeological Resource Management Report (ARMR): Recommended Contents and Format*, Preservation Planning Bulletin No. 4(a) (Department of Parks and Recreation 1989). These reports will also follow the report preparation guidelines provided in *Guidelines for Writing Phase II Cultural Resource Evaluation Reports at Edwards AFB, California* (Air Force Flight Test Center Environmental Management Directorate, Conservation Branch 1998). Reports will be produced as described in Report Production, section 1.2.7.

1.2 Phase II Evaluations

1.2.1 Research Design

To streamline the Phase II evaluation process, the BHPO intends the natural and cultural settings, cultural contexts, research issues, and data recovery methods contained in the prehistoric and historic cultural resources overviews and management plan to act as a research design. They will be used when testing certain types of sites on Edwards AFB in place of a project-specific research design. The AFFTC will formalize this intention in a programmatic agreement that will be submitted to the SHPO and ACHP for concurrence. However, the BHPO will still require a brief work plan containing a detailed schedule and cost analysis showing cost for each major project element (e.g., prefield research, fieldwork, cataloging, special analysis, and report writing) before fieldwork begins.

Individual research designs will be specific and focused and will be developed to test certain types of sites. Standardized Treatment Of Prehistoric Archaeological Resources By Site Type and Standardized Treatment Of Historic Archaeological Resources By Site Type, sections 1.12 and 1.13, respectively, describe which site types will still require a project-specific research design. When this is the case, research designs will be prepared in accordance with SHPO guidelines as described in *Guidelines for Archaeological Research Designs*, Preservation Planning Bulletin No. 5 (Department of Parks and Recreation 1989), except the cultural resources overview and management plan will be referenced in place of the cultural context and methods sections and any other sections where content would be duplicated. The format of research designs will conform to the guidelines set forth in *Guidelines for Writing Phase II Cultural Resource Evaluation Reports at Edwards AFB, California* (Air Force Flight Test Center Environmental Management Directorate, Conservation Branch 1998). A detailed schedule and cost analysis showing cost for each major project element (e.g., prefield research, fieldwork, cataloging, special analysis, report writing) will accompany each research design. Sufficient research will be performed to understand and develop prehistoric and historic contexts appropriate to the site types to be investigated. These contexts will be used as a basis for site evaluation. Research will be conducted at the BHPO to assess the nature and extent of cultural resources within the study area. The BHPO contains the most extensive data concerning sites on Edwards AFB. To avoid costs, site information will not be researched at outside facilities, such as the State Archaeological Information Centers, without prior approval of the BHPO. Research designs will be produced as described in Report Production, section 1.2.7.

1.2.2 Archival Research

Archival research and literature reviews will be conducted as necessary to understand the site's historical context and its Archaeological deposits. Information may be sought concerning a site's period and type of occupation, the origins of its refuse deposits, its household composition, the ethnicity of its occupants, the mining technology and prospecting patterns used at mining sites, land ownership, and other relevant information.

1.2.3 Fieldwork Practices

1.2.3.1 Mapping

Site boundaries and artifacts will be delineated with pin flags, and a site grid will be established. The origin of the grid, which is also the primary site datum, will be established off the site, to the southwest. Any one point within the grid, including site datums, units, and artifact locations, will be designated using an easting/northing coordinate system in which points are measured in meters north and east of the origin/datum (N100.5 E150.5). The origin/datum will be designated 100 north and 100 east (N100 E100).

This will provide a margin for error, in case the site turns out to be larger than expected and the grid needs to be expanded to the south or west of the origin. A wooden stake will mark the origin/datum. If the site is found eligible, a concrete and metal marker or a piece of rebar with a metal tag will replace the wooden stake. Any secondary datums will be tied to the primary datum. All datums will be mapped with a GPS unit as described in GPS Guidelines, section 1.4.

All recordation, collection, and excavation units will be oriented to true north. The coordinates of their southwest corners will designate units. Coordinates, excavation level, and/or stratum will record the provenience of all cultural materials, although point proveniencing of certain artifacts will be used when appropriate.

A transit or other mapping device will be used to produce scale maps depicting the site boundary and all features, artifact concentrations, units, soil samples, and point provenienced artifacts. Everything will be mapped in relation to the main datum. All measurements will be in metric with the exception of historic structures that must be measured in feet and inches. Most of the base is mapped using at least 5-foot contour intervals on the GIS. The GIS base maps will be used to plot Archaeological data.

1.2.3.2 Surface Collection

All stylistically diagnostic prehistoric tools will be point provenienced and collected for analysis with the exception of milling slabs. Milling slabs will be described, measured, photographed, and left *in situ* unless special analyses have been approved by the BHPO. Complete descriptions of each collected artifact will be provided in the report and on the DPR-523C site record forms completed for the site.

On sites with dense artifact concentrations, surface artifacts may be sampled using 10- by 10-meter unit surface recording units (SRU). Artifacts within three quarters of each SRU will be plotted using a grid, described, and analyzed in the field, but not collected. On prehistoric sites, the BHPO may require that one 5- by 5-meter surface scrape unit (SSU) be excavated within each SRU so that a sample of the artifacts within each SRU will be collected, analyzed in a laboratory setting, and curated for future reference.

Diagnostic historic artifacts will be point provenienced. Each artifact will be carefully and clearly numbered in the field with a Sharpie®, and a data sheet will be prepared. The BHPO has developed data sheets for four different types of historic artifacts: cans, ceramics, glass, and "general." Significant diagnostic items and artifacts in imminent danger of being destroyed or collected by nonArchaeological personnel will be collected for permanent curation at the BHPO. Examples include all coins, cast iron toys, license plates, tools, and other collectibles. Complete descriptions of each collected artifact will be provided in the report and on the DPR-523A site record forms completed for the site.

1.2.3.3 Test Excavation

Archaeological testing will consist of small-scale excavations conducted with hand tools. Excavation should be done using a shovel. Trowels and small picks should be reserved for use on features and sidewalls and for cleaning up levels. Test excavations may include shovel test pits (STP), post hole tests (PHT), SSU, and formal test units (TU). The STPs will be informally excavated. They will measure no more than 50 square centimeters and will be excavated to a minimum depth of 50 centimeters or until sterile deposits are encountered. The PHTs will be excavated with an auger to bedrock or inclusive of at least two sterile levels. The SSUs will measure 5 by 5 meters or smaller and will not exceed 5 centimeters in depth. The size of the SSUs may vary from project to project, but all SSUs excavated for a single project must be the same size. Formal TUs will measure 1- by 1-meter. Formal TUs will be excavated stratigraphically in 10-centimeter horizontal or contour levels to bedrock or inclusive of at least

one sterile level. When excavating horizontal levels, the highest corner of the unit will be designated the vertical datum, and the surface of that corner will have a depth of zero centimeter. All depth measurements will be referenced from that point. Formal TUs may be placed adjacent to one another to create blocks if needed to investigate features. For Phase II testing, unit placement will be judgmental. The STPs and PHTs will be excavated to identify areas with buried deposits and locate subsurface site boundaries. The SSUs will be excavated within artifact concentrations to obtain a sample of materials present on the surface of a site. The TUs will be excavated to obtain data from areas where high densities of artifacts are observed or from features.

All soil from STPs, SSUs, and TUs will be dry screened through 1/8-inch or smaller mesh. Soil from PHTs should be screened through 1/16-inch mesh as most cultural materials recovered from PHTs will be small bone fragments and micro flakes. Screening should be done over plastic sheeting to reduce environmental damage, prevent contamination of the site's surface deposit, and expedite the backfilling process. A level record should be filled out and a plan view drawn for each level, including the surface, even if nothing is found in the level. When the excavation of a unit is completed, a profile will be drawn of at least one wall, and profiles of more walls will be drawn if there is complex stratigraphy or features of special interest. Strata color descriptions will be made using standard Munsell soil color values on dry samples. Each site's geology and geomorphology will be documented to provide a context within which site integrity and site formation processes may be evaluated. Photographs will be taken of each 1- by 1-meter TU or larger unit and to document the entire Phase II project. When photographing a unit, a north arrow and a sign identifying the site, unit, and depth should be included in the picture. Photographs will not depict line badges or sensitive buildings. Slides will be mounted in cardboard, not plastic, frames. All units will be backfilled.

Refuse deposits will be sampled using 5- by 5-meter SSUs. Units will be placed judgmentally in areas that will produce the maximum amount of useable data. The depth of the deposit and location of concentrations of subsurface materials will be determined with a metal detector and/or a steel probe. Scraping the SSU with a 4-tined cultivator will collect artifacts; this will minimize damage to the artifacts. If screening is necessary, 1/4-inch screen will be used. Diagnostic artifacts such as bottle bases and finishes and complete cans will be carefully and clearly numbered in the field with a Sharpie®, and a data sheet will be prepared. The presence of fragmentary or nondiagnostic artifacts (such as glass fragments) in the SSU should be recorded in the notes, but not analyzed or precisely quantified. Only significant diagnostic items and artifacts in imminent danger of being destroyed or collected by nonArchaeological personnel will be collected for permanent curation at the BHPO. If there are several examples of a particular artifact type, only the best example should be collected. Collected artifacts will be placed in 30-gallon trash bags for transport to the laboratory. The top of each bag will be labeled with the unit's provenience, the type of sample, and the date. Each recorded unit and any artifacts with maker's marks or other distinctive attributes that are not collected will be photographed.

Effects to the natural environment will be minimized. Only vegetation within, or immediately adjacent to, units may be removed. To protect wildlife, any open excavation units will be securely covered with weighted plywood covers at the end of each workday. All field crewmembers will be aware of regulations regarding the treatment of desert tortoises and any other protected wildlife in the event they are encountered. Desert tortoise awareness training is available through Air Force Flight Test Center/Environmental Management Directorate (AFFTC/EM). Specific treatment plans for the different types of sites are outlined in Standardized Treatment Of Prehistoric Archaeological Resources by Site Type and Standardized Treatment Of Historic Archaeological Resources by Site Type, sections 1.12 and 1.13, respectively.

1.2.3.4 Collecting Special Samples from Prehistoric Sites

If any features or faunal remains are encountered, charcoal, shell, nonhuman bone, or bulk soil samples will be collected for radiocarbon dating to determine the temporal placement of the site. The sample will be wrapped in foil and placed in a protective container. After laboratory processing, the sample will be sent for conventional radiocarbon dating. If there are less than 5 grams of charcoal, 15 grams of shell, or 150 grams of bone, the sample should not be removed from its surrounding matrix. The sample and its matrix should be collected, and separated under controlled laboratory conditions. The sample will then be submitted for Accelerator Mass Spectrometry dating.

A selected sample of obsidian artifacts will be collected and submitted for obsidian hydration dating and sourcing.

As appropriate, column samples may be taken to acquire pollen, charcoal, and supplemental macrobotanical, faunal, and lithic information. Column samples will measure 20 by 20 centimeters and will be excavated just outside completed TUs in 10-centimeter arbitrary levels or by natural stratigraphic levels, if evident. Column samples will extend from the top to the floor of the TU. If there is a possibility the column sample may be used for pollen analysis, it should be taken with clean tools and plastic bags. The matrix taken from each level should be placed directly into a plastic bag. The tools should be washed with distilled water before excavating each level.

The need for protein residue analysis should be discussed with the BHPO prior to expending funds for it. Protein residue can be recovered from flaked stone, groundstone, ceramics, and soils from suspected kill sites. Anything that is a candidate for protein residue analysis should be placed in a clean container immediately. The item should be handled as little as possible to avoid contamination. Groundstone found *in situ* that is a candidate for protein residue analysis should not be cleaned; dirt adhering to the artifact should be left in place. The artifact should be wrapped in foil immediately to prevent contamination. The portion of the artifact that was facing upwards when it was found should be labeled as such in permanent ink on the outside of the protective foil wrapping. The portion of the artifact that was facing downwards when it was found should be labeled similarly.

In order to prevent false positives from occurring during protein residue analysis, control samples should be collected. On stratified sites, 1 gram of soil should be collected from each cultural level, and one 1-gram sample of soil should be collected from offsite. On surface sites, two onsite and one offsite sample should be collected. The samples should be collected with clean tools and placed in clean plastic containers.

1.2.4 Laboratory Analysis Practices for Prehistoric Materials

Cultural materials and the surrounding matrix that do not pass through the 1/8-inch mesh screen during dry screening in the field should be labeled with their provenience, bagged, and transported to the laboratory. Once in the laboratory, the contents of the bags will be water screened on 1/16-inch mesh.

Spraying the matrix with water during water screening will gently remove soil from artifacts and gravels. This technique both cleans the artifacts and increases their visibility, thus expediting sorting and identification. The cleaned artifacts will be air dried on racks, bagged according to their provenience, and brought into the laboratory for sorting.

The cultural materials will be sorted from the noncultural matrix and categorized by material type. The noncultural matrix will be discarded. Each category of material from a specific provenience will be placed in individual, plastic, Zip-lock™ bags with archival quality labels as described in Curation, section

1.5. Following analysis, the Zip-lock™ bags containing the collection will be placed in archival quality storage boxes as described in Curation, section 1.5.

Materials will be extracted from column samples in two steps. First, a tested flotation device will be used to extract the "light fraction" of the sample. Then the remainder will be water screened through 1/40th-inch mesh screen, and the charcoal, botanical materials, faunal remains, and artifacts contained in each sample will be cleaned, sorted, identified, analyzed, cataloged, and prepared for curation. An unprocessed subsample of each sample will be retained and curated. It will be placed in a Zip-lock™ bag measuring no larger than 4 by 4 inches. The subsample will be labeled and catalogued as part of the collection. Recovered materials will be cataloged and curated as described in Curation, section 1.5.

All prehistoric artifacts collected from test excavations will be examined for a variety of attributes associated with specific manufacturing, use, and discard strategies and any other appropriate attributes. Each artifact will be quantified (measured and weighed); this and the attribute information will be entered in the catalog. The classification methods, attributes observed, and other analytical techniques applied to the artifacts and all relevant references will be fully explained in the technical report. Diagnostic artifacts will be labeled directly on the artifact in permanent ink.

Diagnostic faunal material will be identified to element, genus, and species where possible. Identification of symmetry should also be attempted whenever possible. Instances of cultural and noncultural modification such as burning, butchering, staining, and weathering should be noted. Determination of age and sex of the specimens should be attempted. Identification of noncultural specimens should be attempted by considering general patterns of bone appearance, vertical and horizontal distribution, and behavior of taxa, to reduce bias in the sample. The number of individual specimens will be calculated by counting the bones and bone fragments. The minimum number of individuals will be calculated by count of taxa possible per nonadjacent units, rather than by nonrepetitive elements alone. Nonadjacent units consist of those units more than 5 meters apart. Each identifiable category or element will be weighed separately.

Ecofacts (unmodified floral, faunal, and stone materials) found on site will be analyzed in the hope that naturally occurring ecofacts on site can be compared to similar, modified materials to demonstrate local opportunism. Unmodified ecofacts may demonstrate a culturally defined choice against utilization of an available resource. Carbonized faunal and floral remains will be speciated to determine what food resources may have been utilized. All charcoal from the same unit and level will be weighed and cataloged as a single sample.

Recovered materials will be cataloged in using BHPO-approved database software and the BHPO's catalog format, the Cultural Resources Geographic Information System (CR GIS), as described in Curation and Databases, sections 1.5 and 1.6, respectively. The file will use the same structure and coding as the appropriate BHPO database so the new catalog can be appended to the existing database. The BHPO's catalog for excavation collections is the same as the ISOCAT.DBF with the addition of fields for the recovery technique (unit type) and the unit's coordinates. A separate analytic database may be prepared and used to analyze the collection, but it must be converted into the BHPO's format before delivery. Both a hard copy on acid-free paper and a disk copy of the catalog will be delivered to the BHPO.

One set of color project photograph negatives, including negatives of photographs not used in the report, and a photo log will be delivered to the BHPO with the final technical report. All photographs will be clearly and systematically labeled and cataloged using the BHPO's PHOTOG.DBF database format. The file will use the same software structure and coding as the BHPO's PHOTOG.DBF database so the new

catalog can be appended to the existing database. Both a hard copy on acid-free paper and a disk copy of the photograph catalog will be delivered to the BHPO.

Archeologists conducting Phase II evaluations will perform any special analyses for which they have the facilities. If the archeologists do not have the appropriate facilities to conduct a particular type of special analysis, they will have the analysis conducted by qualified individuals or companies that do. Special analyses may include radiocarbon dating, obsidian hydration measurement and sourcing, faunal analysis, bead analysis, column and soil sample processing and analysis, and serology. Analytical laboratory results will be acquired and incorporated into the technical report.

All artifacts, catalogs, maps, and photocopied sets of all lab reports, field notes, and all other documentation will be delivered to the BHPO upon project completion. All artifacts must be cleaned, unless they are specifically exempt, before delivery to the BHPO for curation.

Temporary labels on Post-it™ notes or a folded sheet of paper hanging out of the box are to accompany all boxes containing collections delivered to the BHPO. The temporary labels should contain the following information: EAFB number, trinomial, project file number, project name, first field date, and material class (if applicable). The material class only needs to be on the label if the collection is from a large site and the box only contains one material class. Permanent labels will be applied to the boxes by the BHPO after delivery.

1.2.5 Laboratory Analysis Practices for Historic Materials

Only diagnostic artifacts should be brought in from the field from historic period sites. If matrix is brought into the laboratory, it will be water screened through 1/4-inch mesh. Diagnostic artifacts such as bottle bases and finishes and complete cans will be carefully and clearly numbered at the screen with a Sharpie®, and a data sheet will be prepared. The presence of fragmentary or nondiagnostic artifacts (such as glass fragments) in the screen should be recorded in the notes, but not analyzed in detail or precisely quantified. For example, do not routinely count bottle sidewall glass. Only significant diagnostic items and artifacts in imminent danger of being destroyed or collected by nonArchaeological personnel will be collected for permanent for permanent Curation at the BHPO, and analysis is to gather sufficient information to describe the assemblage and obtain data requested by the BHPO data structure. Time and money should not be spent measuring, counting, or otherwise processing materials beyond their useful data yield.

1.2.6 Phase II Technical Report

Phase II technical reports will discuss the results of the evaluation and explain why each site did or did not meet the NRHP's eligibility criteria. Where appropriate, reports will conform with the SHPO standards as described in the *Archaeological Resource Management Report (ARMR): Recommended Contents and Format*, Preservation Planning Bulletin No. 4(a), except the cultural resources overview will be referenced in place of the Natural and Cultural Setting sections. The format of reports, including title pages and management summaries, will conform with the guidelines set forth in *Guidelines for Writing Phase II Cultural Resource Evaluation Reports at Edwards AFB, California* (Air Force Flight Test Center Environmental Management Directorate, Conservation Branch 1998). Reports will be produced as described in Report Production, section 1.2.7.

Updated DPR-523 forms incorporating evaluation findings will be prepared for each site evaluated. Both the FINAL and final site records will be reproduced single-sided and delivered to the BHPO unbound with the technical report. Electronic disk copies of final site record forms using BHPO-approved word processing software will be delivered to the BHPO, in addition to hard copies.

1.2.7 Report Production

Reports will be produced on a word processor with a letter quality printer. They will be printed on quality 8.5- by 11-inch white bond paper and comb bound. Final reports will further develop and resolve all comments generated by review of FINAL reports. An electronic disk copy of the final report will be delivered to the BHPO using BHPO-approved word processing software, in addition to hard copies. If the SHPO, American Indians, or any other interested parties comment negatively on a technical report, the authors will send the BHPO a written response addressing the comments.

1.3 Phase III Data Recovery

Small light lithic deposits that qualify for the *California Archaeological Resource Identification and Data Acquisition Program: Sparse Lithic Scatters* will be treated programmatically under that program. Fieldwork will be conducted and documentation will be prepared as directed in Jackson et al. (1988).

All other Phase III data recovery efforts will require a project-specific research design as described in Research Design, section 1.2.1. The research design for data recovery efforts on prehistoric and historic Archaeological sites will detail the nature and extent of the proposed fieldwork. However, the types of units, methods for numbering and recording units, and documentation and curation methods outlined in Phase II Evaluations, section 1.2, will be used. Phase III technical reports will follow the guidelines for Phase II reports set forth in Phase II Technical Report, section 1.2.6.

1.4 GPS Guidelines

The following procedures relate to the use of GPS units in accordance with the Cultural Resources Geographic Information System Operations Manual (Loetzerich 1999). During fieldwork, contractors serving the BHPO are requested to collect spatial data using GPS technology unless other arrangements are made. The GPS units employed by the contractor should be compatible with the Trimble line of GPS products and/or Pathfinder 3.1 software. The GPS units and Pathfinder software are available on a first come, first served policy through the BHPO and the GIS department at Environmental Management. Limited GPS training and assistance is available to each contractor.

For Archaeological surveys, site boundary maps will be generated by walking the perimeter of the site with a GPS unit. Small features or artifact concentrations, less than approximately 10 square meters, can be plotted as a single point, while larger features can either be plotted using a GPS unit or with traditional tape and compass from a site datum. If a datum is established, features, concentrations, and artifacts must give a distance and bearing to the datum. Individual artifacts to be plotted on a site map will be mapped with the GPS as a single point, or a distance and bearing to the site datum must be provided. Concentration and feature designations will be assigned according to the Cultural Resources GIS Operations Manual. Archaeological isolates will be plotted as a single point using a GPS. Any two artifacts can be plotted as a single point when they are less than approximately 15 meters apart.

All GPS data must be post processed (differentially corrected) to ensure a reasonable level of accuracy. The GPS data can be submitted to the cultural resources GIS department and corrected on a scheduled (e.g., daily, weekly, monthly, per project) basis. The resulting GPS plots must be verified by at least one individual who was present onsite when the data were collected. This is to ensure that the plots are accurate in relation to other nearby features.

For Archaeological excavations, at least one datum will be placed in each site and/or each loci of a site. These datum(s) will be accurately located using a GPS unit. Datum point data must be post processed and verified by at least one individual who was present onsite. A grid system will be established using

the southwest corner of each unit as the unit datum. Each surface collection or excavation unit will be assigned a unique GIS designation as well as its Cartesian designation pursuant to the Cultural Resources GIS Operations Manual. Due to accuracy considerations inherent in GPS technology, GPS units should not be used to plot individual excavation units within a site. A distance and bearing to the southwest corner of each excavation unit will be measured using a transit, tape and compass, or laser transit.

All grid data will be submitted to the cultural resources GIS department in a format compatible with the Intergraph and GeoMedia GIS platforms. All contractors employing the cultural resources GIS must adhere to the procedures detailed in the Cultural Resources GIS Operations Manual. In particular, filename and directory guidelines must be followed. Any files or directories found that are not following established guidelines will be deleted.

1.5 Curation

In 1998, an *Operations Manual for the Information Center and Curatorial Functions of the Curation Facility at Edwards Air Force Base, California* (Crosby 1998) was prepared. This document provides detailed information about curation standards at Edwards AFB. It also contains guidance on how artifacts, documents, and databases are to be prepared for curation prior to submission to the base Curation Facility. All contractors performing work at Edwards AFB need a copy of this manual and are required to adhere to its specifications.

The BHPO curates artifacts, photographs, and the Edwards AFB's cultural resources archive. Artifacts are stored in plastic 4- by 4-inch reclosable bags. Larger bags are to be used only when objects are too large for 4- by 4-inch bags. Each bag contains a label on archival quality paper (e.g., Perma/Dura Bond) documenting the catalog or ISOCAT number, the other designation (field number), the site number (if applicable), the provenience, an artifact description, the project number and name, the agency that collected the artifact, and the date it was collected. The bags containing individually collected prehistoric artifacts are stored in drawers in a metal cabinet, each drawer containing a different artifact type. Bags containing small historic artifacts are also stored in this cabinet. Large historic artifacts such as bottles and cans are stored in archival quality storage boxes by artifact class, and the box number is recorded in the artifact's ISOCAT.DBF file. Artifacts collected during large projects are also stored in archival quality storage boxes. Each box usually contains the collection from a single site. More than one box may be necessary to curate the artifacts from large sites. Each box will then contain a different type or class of artifact. While it is preferable to not combine collections from different sites in a single box, if they are small, the collections from different sites studied as part of the same project are stored in the same box to save space. The BHPO uses and accepts only 15- by 12- by 10-inch, blue-gray, archival bulk storage boxes with double sidewalls and bottoms, made of acid and lignin free, virgin bleached fibers, buffered to protect against atmospheric pollutants and neutralize migrant acidity (e.g., Perma/Dura Bond) and 17 1/4- by 11- by 5-inch flat storage boxes with the same qualities as the bulk storage boxes.

The BHPO assigns the next available box number to all boxes containing collections as they are received for curation. This number is recorded in BOX.DBF so that the collection can be located and retrieved in the future.

Photographic prints, slides, contact sheets, and negatives are curated in Print FileÒ-brand, archival quality, plastic photograph sleeves in box binders. The notebooks are organized numerically by roll number. A hard copy of the photo log for each roll, taken from the photo log database and printed on acid-free paper, is located in the notebook preceding the prints, slides, contact sheets, and/or negatives that are assigned to that roll number. Each roll is assigned a different number composed of the year the roll was taken, the organization that took the photographs, and a sequential number (e.g., 96C-126). Each exposure in the roll is assigned an individual catalog number composed of the roll number and the

exposure number (e.g., 96C-126-12). Donated photographs for which the BHPO does not have negatives are assigned arbitrary roll numbers, each collection being considered a separate roll, and arbitrary catalog numbers. The catalog number, project name or number, the date the photograph was taken, and a brief description of the photograph's subject matter are recorded on the back of each print, slide, and contact sheet using an archival quality pen.

Audiotapes and videotapes are curated in blue, buffered, acid-free, archival quality boxes. Reports, documentation, and other paper items are curated in the same type of archival quality storage boxes as artifact collections.

The cultural resource archive consists of all documentation pertaining to cultural resources on Edwards AFB. This includes original site record forms and supplemental site record forms for all the sites recorded on Edwards AFB. These forms are kept in three-ring notebooks and are filed numerically by EAFB number. FINAL and final reports and other project-specific documentation such as correspondence and SHPO concurrence letters, are filed numerically by project number. Duplicate records are stored and available at the State Archaeological Information Centers.

1.6 Databases

The BHPO has several databases that contain information about cultural resources recorded in the field. The SITES.DBF database contains information about all known sites on Edwards AFB. The ISOCAT.DBF database contains information about isolated finds, artifacts collected from sites during surface surveys, and artifacts collected during small Phase II evaluation efforts. Artifacts collected during Phase II or III excavation projects are documented in separate, project-specific, catalogs. Paleontological finds are tracked using the PALEO_S.DBF database.

All projects requiring cultural resources management support are documented in the ALLPROJ.DBF database. This database summarizes the project data. The BHPO also maintains a database to track the results of cultural resources monitoring efforts. Information about specific reports prepared for cultural resources management projects on Edwards AFB is available in the Cultural Resources Bibliography (EAFB.BIB). The bibliography includes inventory, evaluation, and mitigation reports and papers presented at conferences. The complete and up-to-date bibliography can be obtained from the EAFB Curation Facility. The BHPO also maintains a bibliography of geomorphological documents concerning Edwards AFB.

The BHPO maintains several databases that track the storage locations of collections and documents. In addition to providing field and project information, the ISOCAT and project numbers used in ISOCAT.DBF and ALLPROJ.DBF databases indicate where these artifacts and documents are stored. The BOX.DBF database is used to manage and track the box address system that allows curated collections stored in boxes to be located. These boxes contain collections from sites, documentation such as field notes and original handwritten site record forms, large isolates stored in boxes, oral history transcripts, paleontological materials, extra copies of technical reports, audiotapes, videotapes, and oversized materials stored on shelves. The PHOTOG.DBF database is a catalog of all the photographs curated by the BHPO. The ORALHIST.DBF database is a catalog of all oral history transcripts, audiotapes, and videotapes. The FILES.DBF database is a catalog of all nonproject files including administration, legal, and reference files and correspondence.

Detailed descriptions of each of their fields are not contained in this document. Updated guides for using and interpreting the database fields are available from the BHPO.

In addition to databases maintained by the BHPO, the BHPO also maintains data on the Edwards AFB GIS. The cultural resources database on the GIS, known as Cultural Resources (CR) GIS, contains locational, environmental, administrative, and management information that can be spatially manipulated or requires output in the form of map products. The cultural resources database on the GIS contains six components: ARPA, Buildings, Data Recovery, Isolates, Sites, and Surveys. The ARPA component contains information relevant to ARPA efforts on Edwards AFB including observed site disturbances and risk of disturbance. The Buildings component contains information about culturally sensitive buildings that require consultation with the BHPO prior to modification, relocation, or destruction. The Data Recovery component contains all the artifact catalogs and excavation information associated with Phase I, II, and III Archaeological investigations conducted on Edwards AFB. The Isolates component contains data associated with prehistoric and historic period isolated finds and paleontological localities. The Sites component contains data about prehistoric, historic period, and military sites on Edwards AFB. The Surveys component contains data about Phase I surveys conducted on Edwards AFB. When the cultural resources database on the GIS is fully populated, it will also contain scanned copies of site and isolate record forms. These forms will be maintained in a digital format and linked to the cultural resources database on the GIS.

1.6.1 Maps

Edwards AFB is depicted on a series of fourteen 7.5-minute USGS quadrangles. The BHPO maintains a set of these maps on which all known sites, recorded and unrecorded, and the boundaries of areas of Archaeological coverage are plotted. The map plots of these sites, isolates, and surveys are stored on layers in the Edwards AFB GIS, which also stores the data associated with each plotted item. The GIS has the capability to overlay the cultural resources data onto copies of the relevant USGS quadrangles, which are also stored in the system, and print them.

Sites are labeled with EAFB numbers. The BHPO files site record forms numerically by EAFB number, so it is easy to find the site record that corresponds to each site plotted on the maps. The EAFB numbers are used rather than state trinomial numbers so that the sites can be plotted and labeled immediately after they are recorded without waiting until trinomials are received. As Edwards AFB is located in three different counties, EAFB numbers also help avoid confusion caused by duplication of the numerical part of trinomial numbers.

Survey areas are labeled with the corresponding Air Force Form 813 number, if the project was 813 driven. The 813 numbers consist of the year the 813 was generated and a three digit number that is assigned sequentially, separated by a hyphen (e.g., 96-025). Projects that are not 813 driven are assigned numbers by the BHPO. These numbers consist of the year the project was generated and a sequentially assigned letter, separated by a hyphen (e.g., 96-D). The BHPO files survey reports and other survey documentation sequentially by these same project numbers to facilitate retrieving the documentation that corresponds with the survey coverage.

The BHPO also curates copies of historical, geological, and hydrological maps of the Edwards AFB area. Historical maps on file at the BHPO include plat maps prepared for the DOD acquisition of the land; the Muroc AFB General Master Plan of 1950 showing both the existing base at South Base and the plan for the new base at Main Base; Wheeler's Army Corps of Engineers map of the Antelope Valley based on the expeditions of 1871, 1875 to 1876, and 1878; a Map of the Passes in the Sierra Nevada from Walker's Pass to the Coast Range produced by the War Department in 1853; a Map of the Great Antelope Valley produced by Frank D. Walsh in 1938; 15-minute USGS quadrangles depicting portions of the Antelope Valley region dating from 1927 to 1956; and a complete set of 7.5-minute USGS quadrangles depicting the Edwards AFB area from 1947. The BHPO has copies of Thomas W. Dibblee's maps depicting the Geology of the Western Mojave Desert, the Geology of the Rogers Lake and Kramer quadrangles, and the

Geology of the Willow Springs and Rosamond quadrangles and David G. Thompson's 1928 map depicting the hydrology of the Antelope Valley including the location of wells.

1.7 Monitoring

Reports will be prepared for each monitoring project undertaken. Information recorded on this form is used to update a BHPO database documenting cultural resource monitoring episodes on Edwards AFB.

In the course of fieldwork and general travel, cultural resource staff will watch for activity that may be impacting cultural resources and that may not conform to legal requirements. Incidents of apparent noncompliance (ARPA violations) will be reported verbally to the BHPO or his designated representative immediately. A memo describing the incident will be prepared and sent to the BHPO within 5 working days.

1.7.1 Inadvertent Discovery

The Management Considerations section of all Phase I cultural resources survey summary reports will outline the procedure project managers are to follow if cultural resources are inadvertently discovered during the course of project implementation. This statement will also be repeated in all environmental documents prepared on Edwards AFB for compliance with the NEPA of 1969.

When cultural resources are inadvertently discovered, project personnel are directed to avoid the site of discovery and contact the BHPO. The BHPO will then visit, or send a qualified representative to visit, the discovery site. The resource will be recorded, evaluated, and effects mitigated as necessary following the practices outlined in Phase I Archaeological Inventory, Phase II Evaluations, and Phase III Data Recovery; sections 1.1, 1.2, and 1.3, respectively.

1.8 Preservation/Site Stabilization

Preservation and site stabilization efforts should be tailored to specific sites based on the nature of their deterioration. The technical reports prepared for two site protection studies conducted on Edwards AFB provide general recommendations for discouraging the collection of artifacts and vandalism and stabilizing sites that are deteriorating due to natural processes (Valdez 1996; Valdez and Torres 1996).

Recommendations for preventing vandalism and unintentional damage to prehistoric and historic period sites by humans include posting signs, increasing security patrols, periodically inspecting sites, developing a public education program, closing roads, and installing remote sensing systems on sites to detect the presence of unauthorized personnel (Valdez 1996; Valdez and Torres 1996).

Recommendations for arresting the deterioration of prehistoric sites located within dunes include capping sites, covering sites with geotextile fabrics, and/or installing wind fences. The installation of channel armor was recommended to protect prehistoric sites subject to water erosion (Valdez 1996; Valdez and Torres 1996).

Recommendations for preventing the deterioration of adobe structures on historic period sites include spraying anti-erosional chemicals on adobe walls, covering adobe walls with geotextiles, and constructing roofs over adobe structures (Valdez 1996; Valdez and Torres 1996).

1.9 Oral History

Oral histories can provide information about the history of the Edwards AFB area that cannot be obtained elsewhere. Therefore, oral histories should be sought during all Phase II evaluation or Phase III data recovery efforts for historic period sites. Although Phase I inventory efforts often do not have the funding to conduct oral history interviews, when funding is available, oral histories can provide valuable information (Pittman 1995).

Methods, techniques, and standards for conducting oral history research on Edwards AFB projects are outlined in the *Technical Report Legacy of Pancho Barnes Oral History Program* (Terreo 1994). Interviews will be recorded on audiotapes or videotapes, and all recordings with valuable information will be transcribed. The legal requirements governing the use and management of oral history materials are also outlined in the above report. Transcripts will be produced as described in Report Production, section 1.2.7.

All transcripts, audiotapes, and videotapes will be cataloged using the BHPO's ORALHIST. DBF database format. The file will use the same software structure and coding as the ORALHIST.DBF database so that the new catalog can be appended to the existing database. Photographs will be cataloged as described in Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4. Audiotapes, videotapes, and photographs will be prepared for curation as described in Curation, section 1.5.

1.10 Ethnography

Interviews with American Indians will be conducted when possible to obtain information about American Indian use of the land now occupied by Edwards AFB, the existence of cultural landscapes, and American Indian concerns about cultural resources management on base. The interviews will be conducted using standard oral history practices as described in Preservation/Site Stabilization, section 1.8.

1.11 Professional Qualifications

The principal investigator for cultural resources projects undertaken at Edwards AFB will meet the Secretary of the Interior's guidelines for professional qualifications. These are outlined in 36 CFR 61, Procedures for Approved State, Tribal, and Local Government Historic Preservation Programs found at: http://lula.law.cornell.edu/cfr/cfr.php?title=36&type=part&value=61.

1.12 Standardized Treatment of Prehistoric Archaeological Resources By Site Type

As discussed in Research Design, section 1.2.1, the BHPO intends the cultural resources overviews and management plan to act as a research design for certain classes of sites found on Edwards AFB. Standardized Treatment Of Prehistoric Archaeological Resources By Site Type and Standardized Treatment Of Historic Archaeological Resources By Site Type, sections 1.12 and 1.13, respectively, present the BHPO's methods for evaluating each of the different site types. However, certain site types are too complex and variable to define generic methods for their evaluation. The BHPO will require a project-specific research design for these types of site. The BHPO may also require a project-specific research design for other sites at his discretion. If during the course of testing, data is recovered that indicates that a site is actually a different type (e.g., fire-affected rock is found in a lithic deposit indicating it should be classified as a temporary camp or foundations are found near a refuse deposit indicating it should be classified as a homesite) the method of testing will be changed accordingly.

All site types on Edwards AFB are tested Archaeologically because the buried portion of a site may be different than what appears on the surface and not enough sites of each type have been sampled to thoroughly characterize the types. Eventually, the site types may be characterized in enough detail to allow all sites on base to be treated programmatically. The BHPO expects that once all the site types have been adequately characterized, certain site types will be found to have limited research potential, reducing or eliminating the need for further Archaeological analysis. Sites that belong to those types will only need to be tested to the extent necessary to ensure they are accurately typed. However, the BHPO expects Archaeological analysis to find enough variability among the sites belonging to some site types to justify continued, programmatic testing of those site types.

This characterization process is already underway. The results of the evaluation of four hearth sites on the Combat Arms Range [CAR] (Parker 1996) guide the methods for evaluating hearth sites outlined in Roasting Pits or Hearths, Section 1.12.15.

The different site types are described in the "Potential Effects to Cultural Resources by Edwards AFB Organizations" section of both the prehistoric and historic overviews (Earle et al. 1997, 1998).

1.12.1 Base Camps or Villages

Base camps or villages (Type 1) will require a project-specific research design as described in Research Design, Section 1.2.1.

1.12.2 Temporary Camps

Large, dense temporary camps (Type 2A) will also require a project-specific research design as described in Research Design, section 1.2.1.

Large, light temporary camps (Type 2B), small, dense temporary camps (Type 2C), and small, light temporary camps (Type 2D) will receive both surface and subsurface testing. That portion of the site consisting of flaked stone should be tested using the methods described in Lithic Deposits, section 1.12.5, below with the addition of faunal analysis. Any hearth features will be tested using the methods outlined in Roasting Pits or Hearths, section 1.12.15. Groundstone artifacts such as manos will be recorded and collected if they are at risk of being collected by nonArchaeological personnel. Milling features will be treated as described in Milling Stations, section 1.12.4.

Obsidian and carbon samples should be sought for obsidian hydration and radiocarbon analysis. At the BHPO's discretion, suitable tools may be submitted for protein residue analysis, and samples may be taken for pollen and macrobotanical analysis.

1.12.3 Utilized Rock Shelters

Occupation rock shelters (Type 3A) will require a project-specific research design as described in Research Design, section 1.2.1. Transient rock shelters (Type 3B) will be tested as if they are temporary camps, using the methods outlined in Temporary Camps, section 1.12.2. The surface deposits of storage rock shelters (Type 3C) will be documented, and any subsurface deposit will be completely excavated. Recovered materials will be analyzed as described in Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4.

1.12.4 Milling Stations

Milling stations including bedrock-milling slicks (Type 4A), bedrock mortars (Type 4B), and milling stations (Type 4C) will be mapped, described, measured, photographed, and the milling surfaces will be drawn to scale. One 1- by 1-meter TU or up to four STPs will be excavated at the BHPO's discretion if there appears to be a potential for additional cultural material. The protected surface of overturned portable mortars may be washed for pollen samples or analyzed for protein residue at the BHPO's discretion.

1.12.5 Lithic Deposits

Table D-1 provides guidelines for the minimum amount of testing to be conducted at large dense (Type 5A), large light (Type 5B), small dense (Type 5C), and small light lithic deposits (Type 5D). Materials studied should be collected for future reference. Subsurface materials recovered from TU's and STP's and surface diagnostic and at-risk artifacts should be collected and processed as described in Fieldwork Practices, section 1.2.3, and Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4.

Suitable obsidian flakes and formal tools should be submitted for obsidian hydration analysis. At the BHPO's discretion, suitable tools may be submitted for protein residue analysis. If a flaking station (Type 5E) has an intact deposit, the debitage should be plotted and mapped using a grid. Refit analysis may be conducted at the BHPO's discretion. A 5- by 5-meter SSU should be excavated beneath the area of greatest concentration to recover any subsurface debitage. Cultural materials will be collected and processed as described in Fieldwork Practices, section 1.2.3, and Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4.

1.12.6 Quarries or Lithic Sources

Due to the unique nature of each quarry and lithic source (Type 6) the evaluation of these sites will require a project-specific research design as described in Research Design, section 1.2.1.

1.12.7 Ceramic Deposits

If the ceramic deposit (Type 7) is confined to a small area, evaluation will involve excavating a 5- by 5-meter SSU and collecting all sherds. If the ceramics are more widely scattered (e.g., eroding down a drainage), the sherds should be point provenienced and surface collected.

The collected sherds will be analyzed for typological, morphological, functional, and technological information to the extent possible. Basic data that will be collected for analysis includes sherd counts, weight, minimum and maximum sherd thickness, method of manufacture (e.g., coiled, paddle and anvil, scraped), interior and exterior surface treatments (e.g., slips, painting, or other decoration), Munsell readings of the interior and exterior surfaces and the paste, the presence or absence of a firing, visual assessment of the firing atmosphere (e.g., oxidizing or reducing), paste inclusions, and temper. The description of inclusions and temper should cover the type of minerals/rocks visible, the angularity of the grains, the degree of sorting, and the size range; attention should be paid to voids potentially left by organic tempers. If possible, the pottery's hardness in relation to the Mohs scale should be assessed. Diagnostic pieces such as necks, rims, bases, handles, or decorated items will be illustrated.

Table D-1. Lithic Deposit Testing Guidelines

Maximum Site Area (m²)	Maximum Artifact Density (flakes/m²)	Soil Conditions	Minimum Number of TUs	Minimum Number of STPs	Surface Collection
100	< 30/10 m²	Stable	1	(or 2)	100% surface collection
100	< 30/10 m²	Dune	1	(or 4)	100% surface collection
100	< 30/10 m²	Pan or Blow Out	1	(or 2)	100% surface collection
100	> 30/10 m²	Stable	1	(or 2)	100% surface collection
100	> 30/10 m²	Dune	1	(or 4)	100% surface collection
100	> 30/10 m²	Pan or Blow Out	1	(or 2)	100% surface collection
500	< 30/10 m²	Stable	1	2	100% surface collection
500	< 30/10 m²	Dune	1	4	100% surface collection
500	< 30/10 m²	Pan or Blow Out	1	2	100% surface collection
500	> 30/10 m²	Stable	2	0	100% surface collection
500	> 30/10 m²	Dune	1	4	100% surface collection
500	> 30/10 m²	Pan or Blow Out	2	0	100% surface collection
2,000	< 30/10 m²	Stable	4	2-4 (1 every 20 m on an axis)	100% surface collection
2,000	< 30/10 m²	Dune	4	4-6 (1 every 15 m on an axis)	100% surface collection
2,000	< 30/10 m²	Pan or Blow Out	4	2-4 (1 every 20 m on an axis)	100% surface collection
2,000	> 30/10 m²	Stable	4	2-4 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per concentration
2,000	> 30/10 m²	Dune	4	4-6 (1 every 15 m on an axis)	1 10x10m SRU w/1 5x5m SSU per concentration
2,000	> 30/10 m²	Pan or Blow Out	4	2-4 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per concentration
10,000	< 30/10 m²	Stable	6	4-10 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per concentration
10,000	< 30/10 m²	Dune	6	6-12 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per concentration
10,000	< 30/10 m²	Pan or Blow Out	4	4-10 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per concentration
10,000	> 30/10 m²	Stable	6	4-10 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per major concentration
10,000	> 30/10 m²	Dune	6	6-12 (1 every 15 m on an axis)	1 10x10m SRU w/1 5x5m SSU per major concentration

Table D-1 (Concluded). Lithic Deposit Testing Guidelines

Maximum Site Area (m²)	Maximum Artifact Density (flakes/m²)	Soil Conditions	Minimum Number of TUs	Minimum Number of STPs	Surface Collection
10,000	> 30/10 m²	Pan or Blow Out	4	4-10 (1 every 20 m on an axis)	1 10x10m SRU w/1 5x5m SSU per major concentration
over 10,000	< 30/10 m²	Stable	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		
over 10,000	< 30/10 m²	Dune	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		
over 10,000	< 30/10 m²	Pan or Blow Out	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		
over 10,000	> 30/10 m²	Stable	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		
over 10,000	> 30/10 m²	Dune	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		
over 10,000	> 30/10 m²	Pan or Blow Out	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		
over 10,000	< 30/10 m²	Stable	Sample major concentrations. Based on its area, treat each concentration as a site using the above guidelines.		

Notes:
1. m – meter
2. m² – square meters
3. SRU – surface recording unit
4. SSU – surface scrape unit
5. STP – shovel test pit
6. TU – formal test unit

An attempt should be made to calculate the minimum number of vessels and to match the materials with published descriptions of pottery from the area. Retrofitting sherds from a site is highly recommended to facilitate calculating the minimum number of vessels present as well as to provide information regarding the vessel's method of deposition and the degree of site disturbance. Microscopic petrographic analysis, chemical assessment of the clay for potential sourcing, and more specialized studies such as content investigation or firing temperature studies may be conducted at the BHPO's discretion.

1.12.8 Cemeteries

The evaluation of cemeteries (Type 8) will require a project-specific research design as described in Research Design, section 1.2.1. The burial policy for Edwards AFB is that burials encountered during testing for section 110 projects will be left in situ. American Indians will be involved in the removal effort if burials are encountered during section 106 projects that will involve later destruction of the site.

1.12.9 Cremations

The evaluation of cremations (Type 9) will require a project-specific research design as described in Research Design, section 1.2.1.

1.12.10 Intaglios

The evaluation of intaglios (Type 10) will require a project-specific research design as described in Research Design, section 1.2.1.

1.12.11 Miscellaneous Rock Alignments and Features

Miscellaneous rock alignments and features (Type 11) will be swept with a whiskbroom to completely expose all the rocks. Then they will be recorded, plotted, and photographed. At least one SSU will be excavated over the feature to recover any associated materials. One 1- by 1-meter TU may be excavated at the BHPO's discretion. Associated materials will be collected and processed as described in Fieldwork Practices, section 1.2.3, and Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4.

1.12.12 Petroglyphs

The evaluation of any petroglyphs (Type 12) will require a project-specific research design as described in Research Design, section 1.2.1.

1.12.13 Pictographs

The evaluation of any pictographs (Type 13) will require a project-specific research design as described in Research Design, section 1.2.1.

1.12.14 Trails

Trails (Type 14) will be photo documented, and their location will be precisely mapped.

1.12.15 Roasting Pits or Hearths

The fire-affected rock elements of each roasting pit or hearth (Type 15) will be photographed and their locations will be plotted on a map using a grid. Then the surface of the feature will be swept with a whiskbroom until the tops of all the elements are exposed. If a subsurface hearth is encountered during the process of excavation, the overburden may be removed with a shovel, trowel, or whiskbroom. After sweeping, the hearth elements will be photographed and plotted a second time.

Following surface documentation, one quarter of the feature will be excavated to obtain a botanical sample. The rocks will not be pedestaled, but they will be recorded prior to removal. The excavation unit will be placed so that material from both the center of the feature and from just outside the feature will be sampled. The matrix from the center of the hearth should be collected separately from the matrix outside the rocks. If there are no apparent changes in the soil's color, texture, or compaction, the inside sample should extend from just below the top of the rocks to a little below the base of the rocks. If color or texture changes are apparent, all the material exhibiting these qualities should be removed. The outside sample will be the same depth as the sample taken from inside the hearth and extend out 10 centimeters from the edge of the hearth. The outside sample should not be more than 10 centimeters wide unless indicated by the soil color and texture. The samples should be taken with clean tools and plastic bags. The tools should be washed with distilled water before taking each sample. Enough soil should be collected from each sample to fill a 1-gallon bag. Two bags of material will be collected, one from the interior and one from the exterior of the feature. Any material suitable for radiocarbon dating should be removed from the rest of the sample and bagged separately. Collecting Special Samples from Prehistoric Sites, section 1.2.3.4, provides guidelines for the treatment of carbon samples. All matrix left in the unit should be screened and the residue bagged with the appropriate level. Fire-affected rock may be collected for analysis but not submitted for curation. This treatment is not applicable to deflated, or otherwise disturbed, hearths. These will be photographed and plotted but not excavated for botanical analysis.

1.12.16 Prehistoric Cairns

Prehistoric cairns (Type 17) will be photographed, and the rock elements will be plotted. Then the cairn will be dismantled to determine if it contains any artifacts or other materials that will identify its origins. If any associated materials are recovered they will be collected and processed as described in Fieldwork Practices, section 1.2.3, and Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4.

1.12.17 Nonhuman Bone Deposits

Nonhuman bone deposits (Type 18) will be surface collected and excavated in the same manner as lithic deposits of a similar size. Screeners should look for micro flakes that may be present but not readily observed. The faunal remains will be analyzed and processed as described in Laboratory Analysis Practices for Prehistoric Materials, section 1.2.4.

1.12.18 Other

Because this category does not contain a specific type of site, the evaluation of any sites assigned to this category (Type 13) will require a project-specific research design as described in Research Design, section 1.2.1.

1.13 Standardized Treatment of Historic Archaeological Resources by Site Type

1.13.1 Refuse Deposits

There are two primary variables affecting the level of effort necessary to evaluate refuse deposits on Edwards AFB. The first is the number of actual "dump points" the deposit contains. A dump point is defined as the point where the refuse was actually dumped. The dump point tends to be the most concentrated part of the deposit. Dump points are surrounded by a less dense deposit of refuse that has been moved away from the dump point by wind, bottle collectors, target shooters, and other agents. The second variable is the length of time the deposit was used. Refuse deposits used over many years tend to be complex with multiple overlapping dump points.

Refuse deposits that measure over 2,500 square meters in area and/or were used for more than 20 years tend to be complex with multiple dump points. A special sampling strategy will need to be developed in order to test sites with these characteristics. Therefore, a project-specific research design, as described in Research Design, section 1.2.1, will be required to evaluate refuse deposits that meet these criteria.

Evaluation of smaller, less complex refuse deposits will involve studying the deposit's dump points using 5- by 5-meter SSU's. Table D-2 provides guidelines for the minimum amount of testing to be conducted at smaller, less complex refuse deposits. Archival research will be conducted to determine if the deposit is associated with a homestead or a road and to identify the artifacts found in the deposit. Refuse deposits will be excavated as described in Test Excavation, section 1.2.3.3, and analyzed as described in Laboratory Analysis Practices for Historic Materials, section 1.2.5.

1.13.2 Town Sites or Settlements

The evaluation of any town sites or settlements (Type 51) will require a project-specific research design as described in Research Design, section 1.2.1.

Table D-2. Testing Guidelines for Sample Refuse Deposits

Number of Dump Points	Minimum Number of SSUs
1	1
2	2
3	3
4	4
5	5
Over 5	5 (sample the most promising dump points)

Note: SSU – surface scrape unit

1.13.3 Homesites

The evaluation of homesites (Type 52) will involve archival research, possibly oral history, architectural description, and Archaeological excavation.

Archival research will be conducted to obtain chains of title, tax census, and homestead patent data. Any historic maps and photographs depicting the homesite will also be sought. When possible, oral history interviews will be conducted to obtain information that will address the research questions and facilitate analysis of the home site's physical remains.

Evaluation of any structures will include producing an architectural description, a measured drawing of the floor plan, and photo documentation. In particular, evidence of construction technology will be sought.

Archaeological investigation of the site will include testing a sample of the site's refuse deposits and possibly excavating a TU adjacent to or within a structure to establish what the building or room was used for or to gain additional information about construction techniques. Refuse deposits will be tested and analyzed using the approach outlined in Refuse Deposits, section 1.13.1.

1.13.4 Agricultural Features

The evaluation of agricultural features (Type 53) will involve measuring, photo documenting, and otherwise recording the feature. If the feature is a large structure, such as a holding pond, it will be mapped. Archival research should be conducted to learn if the feature is associated with a homestead.

1.13.5 Ranching Features

The evaluation of ranching features (Type 54) will involve measuring, photo documenting, and otherwise recording the feature. If the feature is a large structure, such as a corral, it will be mapped. Archival research should be conducted to learn if the feature is associated with a homestead.

1.13.6 Mining-Related Sites

The evaluation of most mining-related sites, including mining claims (Type 55A), open pit mines (Type 55C), mine drilling sites (Type 55D), developed mine shafts (Type 55E), and mining camps (Type 55F), will require a project-specific research design as described in Research Design, section 1.2.1.

Unlike other mining-related sites, the evaluation of mining prospects (Type 55B) will involve measuring, photo documenting, and otherwise recording the feature. Archival research should be conducted to check for the existence of a mining claim.

1.13.6.1 Mining Survey

For any undertaking, the BHPO will perform a record/literature search to assess the completeness and adequacy to Phase I coverage. If the Area of Potential Effect (APE), or portions of it, have not been surveyed, a Phase I survey will be performed in the event that there is an expectation that there are 4 or more mining sites/features per 160 acres, or a 4-acres or more density of other site types per 160 acres. Assessment is to be made by the BHPO and based on site density as measured in adjoining sample survey units. Prior to destruction of any site or feature:

a. All sites/features will be documented via standard DPR site record forms
b. GPS datum points will be obtained for all sites
c. Appropriate to-scale maps and drawings will be made
d. A minimum of two photos of each site/feature will be taken
e. All associated artifacts or artifact samples will be analyzed, described, and curated on base at the Edwards AFB Curation Center, which substantially meets 36 CFR part 79 standards. Associated documentation shall be permanently curated.
f. Interiors of lode mines will be measured, photographed, and mapped when it is safely prudent to do so.
g. Ore samples will be collected from mines, prospects, and ore stations. The specimens will be permanently curated unless professionally assayed.
h. Refuse deposits will be inventoried and described, and, as appropriate, tested using methods adopted basewide for all refuse deposits.
i. Camps (either structural or non-structural) will be inventoried, described, mapped, and test-excavated to the extent necessary to assess subsurface deposits using methods developed for treatment of homesites.
j. As always, each site will be considered on a case-by-case basis by a qualified cultural resource specialist to select and apply the most effective mitigation measures.
k. A Phase I survey summary form will be completed and filed with the Archaeological Information Center. A technical report describing the project, the sites/features to be affected, and results of the actions taken will also be filed with the Information Center.

Comprehensive site data will be entered in the base's date database and corresponding DPR forms incorporating all data will be filed with the appropriate Archaeological Information Center

1.13.7 Miscellaneous Historic Period Rock Features

Miscellaneous historic period rock features (Type 56) will be photographed, and the rock elements will be plotted. If the feature is a cairn, it will be dismantled to determine if it contains any artifacts or other materials that will identify its origins.

1.13.8 Railroads/Railroad Camps, Stops, or Features

Railroad beds (Type 57A) and other railroad features (Type 57C) will be measured, described, photo documented, and otherwise recorded. Any refuse deposits will be studied using the approach described in Refuse Deposits, section 1.13.1. The evaluation of railroad stops (Type 57B) will require a project-specific research design as described in Research Design, section 1.2.1.

1.13.9 Roads and Trails

Roads, trails, and bridges (Type 58) will be measured, described, photo documented, and otherwise recorded. Any refuse deposits will be studied using the approach described in Refuse Deposits, section 1.13.1. Archival research will be conducted to find maps depicting the road and blueprints if a bridge is being evaluated.

1.13.10 Recreation Related Sites

The evaluation of recreation related sites (Type 59) will require a project-specific research design as described in Research Design, section 1.2.1, but for sites associated with duck clubs, the approach will be similar to that described in Homesites, section 1.13.3.

1.13.11 Other

Because this category does not contain a specific type of site, the evaluation of any sites assigned to this category (Type 60) will require a project-specific research design as described in Research Design, section 1.2.1. Survey sites (Type 60B) are an exception. They will be measured, photo documented, and otherwise recorded.

1.13.12 Military Buildings and Facilities in Ruins

Foundations and ruins (Type 80A) and abandoned targets (Type 80C) will be measured, photo-documented, mapped, and otherwise recorded. Archival research should be conducted to identify the purpose of the facility and who occupied it. Any associated refuse will be studied using the approach outlined in Refuse Deposits, section 1.13.1.

If a historic district is under evaluation, rather than individual buildings, facilities, foundations, or targets, the evaluation effort will require a project-specific research design as described in Research Design, section 1.2.1.

1.13.13 Aircraft and Aerospace Vehicle Crash Sites

Crash sites (Type 82) will be mapped and photo documented. Archival research will be conducted to identify the aircraft and its significance. At the BHPO's discretion, diagnostic fragments will be collected; this may involve a limited amount of excavation.

1.13.14 Aircraft and Spacecraft

Aircraft and spacecraft will be evaluated following the recommendations outlined in the technical report for the Cold War Jets Study (A Legacy Resource Management Project), Edwards AFB, Kern County, California (Stagg and Terreo 1995) and Legacy of the Lifting Bodies (Miller and Terreo 1995). Evaluation will generally involve archival research to establish if the aircraft or spacecraft has any association with significant historical events or people (Criterion A or B) and an analysis of the craft's

design to determine if it possesses unique design elements or is representative of a particular model or type (Criterion C).

1.13.15 Places

The evaluation of places (Type 84) will require a project-specific research design as described in Research Design, section 1.2.1.

1.14 Recording Paleontological Resources

Paleontological finds will be identified during the course of Archaeological surveys and plotted using a GPS. Fossil *Neotoma* sp. middens will also be recorded. Paleontological finds located within 50 meters of each other will be recorded as a single paleontological locality. The location of paleontological localities within an Archaeological survey unit should be referenced to the southwest corner of the survey unit. Paleontological finds located more than 50 meters from each other will be recorded as separate paleontological localities. Paleontological resources will be recorded on San Bernardino County Museum Paleontological Locality Record Forms. The BHPO used to assign ISOCAT numbers to all paleontological resources recorded on Edwards AFB, but now they are assigned "P" numbers.

Within 10 days of recording a paleontological resource, a Paleontology.DBF data entry sheet will be filled out and submitted to the BHPO so that a "P" number may be assigned. Paleontological Locality Record Forms containing "P" numbers are to be completed and submitted to the BHPO for review within 15 working days of completion of fieldwork. Following BHPO review, final Paleontological Locality Record Forms will be prepared and submitted to the BHPO. Both the FINAL and final forms will be reproduced single-sided and delivered to the BHPO unbound. Electronic disk copies of the final forms using BHPO-approved word processing software will be delivered to the BHPO, in addition to hard copies.

1.15 Inadvertent Discovery of American Indian Human Remains, Funerary Objects, Sacred Objects, and Objects of Cultural Patrimony on Air Force Lands

The Native American Graves Protection and Repatriation Act (NAGPRA), National Historic Preservation Act, Archaeological Resources Protection Act statutes and 43 CFR 10, 36 CFR 800, 32 CFR 229, and 36 CFR 79 regulations govern the inadvertent discovery of American Indian human remains and artifacts.

These statutes and regulations apply to range managers, operations managers, field units, unit commanders, training site managers, maintenance crews and foremen, construction crews, contractors, Cultural Resources Managers, Natural Resources Managers

This guidance covers disturbance from construction, repair, and maintenance activities; off-road traffic; field units on exercise; outdoor recreation; and observation of eroded areas, gullies, dirt trails, road cuts, and animal burrows and mounds

These requirements are triggered by the discovery of human bone, funerary items, or unmarked graves and Archaeological sites

The NAGPRA and its implementing regulations (43 CFR Part 10) provide for the determination of custody, protection, and repatriation of American Indian human remains, funerary objects, sacred objects, and objects of cultural patrimony. Compliance with NAGPRA should be carried out in conjunction with compliance with the National Historic Preservation Act and the Archaeological Resources Protection Act, when

applicable. Title 36 CFR 79 establishes definitions, standard, procedures, and guidelines for federal agencies to preserve collections of prehistoric and historic material remains and associated records that are recovered in conjunction with federal projects and programs.

1.15.1 Procedures

The following procedures are to be followed upon discovery of human remains and cultural items.

a. Contractors and/or base CE employees

(1) Goals: Protect the location and any remains and artifacts pending further instructions.

(2) Tasks:

(a) Immediately stop activity at and near the discovery location.

(b) Notify the supervising unit commander (e.g., BCE, Deputy BCE) and Contracting Officer (CO).

(c) Establish a 150-ft buffer zone around the location.

(d) Avoid the buffer zone. Stay on existing roads if traveling through the buffer zone.

(e) Await further instructions through the chain of command.

b. Unit Commander

(1) Goals: Implement protective measures pending advice from the Cultural Resources Manager.

(2) Tasks:

(a) Ensure that all steps in A are implemented.

(b) Immediately notify the Cultural Resources Manager.

(c) Identify the backup for the Cultural Resources Manager as _____.

(d) Wait for further directions from the Cultural Resources Manager.

(e) Ensure that activities outside the buffer zone proceed as necessary.

c. Cultural Resources Manager

(1) Goals: Assess identity of human remains and cultural affiliation of artifacts; consult IAW statutes and policy; advise Unit Commander.

(2) Tasks:

a. Ensure the location, remains and artifacts are protected.

b. Ensure that all remains and artifacts are accounted for and properly labeled and packaged if removed from the ground.

c. Consult with HQ AFMC (and HQ AFCEE if desired).

d. Notify the medical examiner and military police if human remains have the potential for being associated with a recent crime scene.

e. If, upon examination, the remains are identified as nonhuman, determine if Archaeological contexts are present that need to be evaluated pursuant to section 106 [36 CFR 800] of the National Historic Preservation Act.

f. Otherwise, identify the cultural affiliation of the remains and artifacts, i.e., evaluate the Archaeological context and conduct stratigraphic analysis, radiocarbon assay, and nondestructive osteological analysis, to determine that the remains are likely those of Native Americans, and therefore, under the purview of NAGPRA.

g. If the evidence supports a Native American affiliation, immediately notify the official NAGPRA POCs of the potentially affiliated federally-recognized Indian Tribes and the SHPO/THPO. If the evidence supports a non-Native American affiliation, there is no NAGPRA compliance issue. In this latter case, removed skeletal elements, associated artifacts, and samples must be collected, reported, and curated properly under ARPA and 36 CFR 79.

h. If NAGPRA does apply to the remains and artifacts, do not remove them from the discovery site until the culturally affiliated Indian Tribe/s is consulted concerning their treatment. Refer to 43 CFR 10, 36 CFR 800, ARPA and 32 CFR 229. Remember that an ARPA permit is not required for testing by AF archeologists or AF contractors to evaluate the site and/or identify affiliation of remains.

i. Develop a Plan of Action that meets requirements in 43 CFR 10.5.

j. Inform field personnel and/or contractor on the course of action, including the requirements of the Plan of Action, if NAGPRA applies to the remains and artifacts.

k. With the commander's approval, authorize work to continue after proper execution of the Plan of Action.

1.16 Documents

The affected resources are records with historical and/or cultural value for their association with Air Force property listed, eligible, or potentially eligible for inclusion in the NRHP. These include, but are not limited to, specifications, illustrations, sketches, drawings, maps, photographs, charts, tables, forms, textual, and electronic documents related to:

a. construction and subsequent modifications

b. engineering and design

c. installation layouts, landscape features, and topography

d. operations and maintenance

e. programs and events

f. real property

g. research, development and acquisition

For purposes of this ICRMP, AFI 37-138 and AFMAN 37-139 govern the maintenance and disposition of historically and/or culturally significant information. Outside the scope of this plan, they govern the

maintenance and disposition of *all* information in the Air Force. They apply to all Air Force activities, including the Air National Guard, the United States Air Force Reserves, the Unified and Specified Commands for which the Air Force is Executive Agent; and contractor personnel who create, accumulate, or manage Air Force records. The proponent of this regulation is the Access Programs Office of the Administrative Communications and Records Management Division of the Secretary of the Air Force (SAF/AAIQ), 1610 Air Force Pentagon, Washington, DC 20330-1610.

1.16.1 Procedures

a. Periodically collect any records associated with Air Force property that is listed, eligible, or potentially eligible for inclusion in the NRHP.

b. Refer to AFMAN 37-139 for series, category, and record disposition. If disposition is *permanent* and documents are no longer needed on base, follow disposition procedures per AFI 37-138.[2]

c. If AFMAN 37-139 disposition is *not* permanent, have records evaluated by a cultural resource professional in conjunction with knowledgeable base personnel to determine if the records have historical and/or cultural significance due to their association with Air Force property listed, eligible, or potentially eligible for inclusion in the NRHP.[3]

d. Records found to have no historical and/or cultural significance can be disposed according to their respective AFMAN 37-139 series, category, and record disposition authority.

e. The BHPO can coordinate removal of documents with the base Records Manager. Using Standard Form (SF) 135, *Records Transmittal and Receipt*, the BHPO may identify the documents to be removed. To report records more than 30 years old, send NA Form 13148, *Report to NARA* [National Archives and Records Administration] *on Permanent and Unscheduled Records Over 30 Years Old in Agency Custody*, through the appropriate channels to SAF/AAIQ.

f. Significant records shall be properly stored and protected until they are transferred to the appropriate repository.

NOTE: Regardless of records dispositions set forth in AFMAN 37-139, Edwards AFB should continue to properly maintain those records associated with resources that are *potentially* NRHP-eligible to preserve information related to future potentially significant resources. As evaluations are completed and determinations made on these potentially significant resources, appropriate records disposition actions can proceed using the above SOPs.

1.17 Preparation of Nomination Packages

If a site is found eligible for the NRHP, the BHPO may ask for a nomination package to be prepared. The nomination package will follow guidelines provided in *National Register Bulletin Number 16A*, "How to Complete the National Register Registration Form" (United States Department of the Interior 1991).

The BHPO will forward FINAL historic district, multiple property, or National Historic Landmark nominations through MAJCOM for review and coordination (Interim Policy Regarding Determinations of Eligibility, Nomination, and Removal of AF Properties from National Register of Historic Places, HQ

[2] Once a document is transferred to NARA, it is no longer the property of the Air Force. For this reason, it is recommended that Edwards AFB duplicate permanent records for local retention prior to transfer of the records to their destination repository, The records should be replicated in a medium (electronic, vellum, film,for example) that allows for high-quality duplication with no data loss.

[3] Section 112 of the NHPA requires that Federal agency personnel or contractors responsible for historic resources meet qualification standards established by the Office of Personnel Management in consultation with the Secretary of the Interior. These standards are set forth in The Secretary of the Interior's Professisonal Qualification Standards (48 FR 44716, September 29, 1983).

USA/ILE Memorandum, 13 December 2001). All MAJCOM comments will be addressed prior to submitting the nomination to the SHPO for comment. Upon receipt of SHPO comment, the BHPO will forward the revised nomination to MAJCOM for review and coordination. The MAJCOM Environmental Protection Committee coordination will be included in the transmittal to Headquarters USAF/Civil Engineering. All nominations to the NRHP will obtain Secretary of the Air Force/Deputy Assistant Secretary of the Air Force (Environment, Safety, and Occupational Health) signature before submission to the Keeper of the NRHP.

Nominations for historic districts, multiple properties, or National Historic Landmarks will include a submittal letter containing the following information:

a. Brief description of the property.

b. Number of buildings, objects, sites, and/or structures proposed for nomination as a historic district, multiple property, or National Historic Landmark.

c. Relation of the property boundary to the installation land use plan.

d. Relative condition of the property.

e. Known repair and rehabilitation scheduled for the property, including protective measures for Archaeological resources.

f. Known cost for needed repairs, rehabilitation, or protection.

g. Current use of the nominated property and/or its location.

h. A description of planned future use of the property, if known, including benefits or constraints for the installation mission, if known. (Incorporate Air Guidance Letter).

APPENDIX E
NATIONAL REGISTER OF HISTORIC PLACES STATUS OF BUILDINGS AND ARCHAEOLOGICAL SITES ON EDWARDS AFB

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Table E-1. Buildings Eligible/Listed on the National Register for Historic Places (NRHP)

Facility Number	Date of Construction	Type/Nomenclature (Name)	NRHP Eligibility	Historic District
501	N/D	Shop, Vehicle Modification	Contrib	South Base Sled Track
503	1953	Solid Rocket Storage Bunker	Contrib	South Base Sled Track
509	1959	Electric Substation	Contrib	South Base Sled Track
510	1954	Fire Station	Contrib	South Base Sled Track
512	1951	Telemetering Receiver Station	Contrib	South Base Sled Track
513	1962	Pump House	Contrib	South Base Sled Track
514	1962	Electric Substation	Contrib	South Base Sled Track
516	1955	Fire Protection Water Storage	Contrib	South Base Sled Track
531	1961	Operations Office	Contrib	South Base Sled Track
540	1959	Fire Water Pump Station	Contrib	South Base Sled Track
545	1959	Firing Control Blockhouse	Contrib	South Base Sled Track
1630	1957	Hangar, Maintenance	Indiv	N/A
1635	1957	Hangar, Maintenance	Indiv	N/A
1830	1957	Weights and Balances Hangar	Indiv	N/A
1926	1960	Propulsion Research Laboratory, Air Breathing	Indiv	X-15 Engine Test Complex
1928	1960	Propulsion Research Laboratory, Air Breathing	Indiv	X-15
1929	1960	Fire Protection Water Storage	Indiv	X-15
1930	1960	Water Fire Pump Station	Indiv	X-15
1931	1960	Research Equipment Storage	Indiv	X-15
2700	1956	Chapel	Indiv	N/A
3802	1953	Storage, SP	Indiv	N/A
4203	1945	Test Stand F Monitor	Indiv (w/4202)	JPL Edwards Test Station
4209	1953	Oxidizer Testing	Contrib	JPL Edwards Test Station
4219	1957	Blower House #1 Tunnel	Contrib	JPL Edwards Test Station
4220	1958	Storage Building	Contrib	JPL Edwards Test Station
4221	1959	Control and Recording Center	Indiv & Contrib	JPL Edwards Test Station
4222	1959	Test Stand D Shop	Indiv (w/4223)	JPL Edwards Test Station
4225	1959	Blower House #2 Tunnel	Contrib	JPL Edwards Test Station

Table E-1 (Continued). Buildings Eligible/Listed on the National Register for Historic Places (NRHP)

Facility Number	Date of Construction	Type/Nomenclature (Name)	NRHP Eligibility	Historic District
4226	1959	Helium Compressor Building	Contrib	JPL Edwards Test Station
4227	1959	Booster Pumping Station	Contrib	JPL Edwards Test Station
4229	1959	Generator Building	Contrib	JPL Edwards Test Station
4231	1963	Administration/Shops	Contrib	JPL Edwards Test Station
4232	1963	Liner Lab	Contrib	JPL Edwards Test Station
4233	1963	Mixer	Contrib	JPL Edwards Test Station
4234	1963	Weigh and Control	Contrib	JPL Edwards Test Station
4235	1963	Oxidizer Grind Building	Contrib	JPL Edwards Test Station
4236	1963	Mixer and Casting Building	Contrib	JPL Edwards Test Station
4237	1963	Oxidizer Dryer Building	Contrib	JPL Edwards Test Station
4238	1963	Cure Facility	Contrib	JPL Edwards Test Station
4239	1963	Cure Facility	Contrib	JPL Edwards Test Station
4240	1963	Cure Facility	Contrib	JPL Edwards Test Station
4241	1963	Preparation	Contrib	JPL Edwards Test Station
4242	1963	Preparation Control	Contrib	JPL Edwards Test Station
4243	1963	Remote Preparation	Contrib	JPL Edwards Test Station
4244	1962	Solid Propellant Conditioning	Contrib	JPL Edwards Test Station
4245	1963	Solid Propellant Conditioning	Contrib	JPL Edwards Test Station
4246	1963	Solid Propellant Conditioning	Contrib	JPL Edwards Test Station
4247	1963	Solid Propellant Conditioning	Contrib	JPL Edwards Test Station
4248	1963	Solid Propellant Conditioning	Contrib	JPL Edwards Test Station
4250	1963	Solid Oxidizer Storage	Contrib	JPL Edwards Test Station
4251	1963	Solid Fuel Storage	Contrib	JPL Edwards Test Station
4252	1963	Liquid Fuel Storage	Contrib	JPL Edwards Test Station
4253	1963	Liquid Oxidizer Storage	Contrib	JPL Edwards Test Station
4254	1963	Liquid Oxidizer Storage	Contrib	JPL Edwards Test Station
4255	1963	Liquid Oxidizer Storage	Contrib	JPL Edwards Test Station
4256	1963	Liquid Oxidizer Storage	Contrib	JPL Edwards Test Station

Table E-1 (Continued). Buildings Eligible/Listed on the National Register for Historic Places (NRHP)

Facility Number	Date of Construction	Type/Nomenclature (Name)	NRHP Eligibility	Historic District
4257	1963	Liquid Oxidizer Storage	Contrib	JPL Edwards Test Station
4258	1963	Waste Flammable Storage	Contrib	JPL Edwards Test Station
4259	1962	Test Stand E	Indiv & Contrib	JPL Edwards Test Station
4260	1962	Solids Assembly Building	Contrib	JPL Edwards Test Station
4261	1962	Igniter Magazine	Contrib	JPL Edwards Test Station
4265	1962	Tunnel Blower House	Contrib	JPL Edwards Test Station
4266	1962	Tunnel Entrance	Contrib	JPL Edwards Test Station
4267	1965	Ignition Lab	Contrib	JPL Edwards Test Station
4268	1965	Weight and Test Preparation	Contrib	JPL Edwards Test Station
4269	1965	Oxidizer Weight and Storage	Contrib	JPL Edwards Test Station
4271	1964	Test Stand G Autoclave	Contrib	JPL Edwards Test Station
4272	1965	Sterilization Facility	Contrib	JPL Edwards Test Station
4273	1964	Battery Term Building	Contrib	JPL Edwards Test Station
4274	1966	Compatibility Test Building	Contrib	JPL Edwards Test Station
4280	1972	Test Stand D Steam Generator Building	Indiv (w/4223)	JPL Edwards Test Station
4281	1976	Oxidizer Storage Building	Contrib	JPL Edwards Test Station
4284	1978	Oxidizer Dryer Building	Contrib	JPL Edwards Test Station
4285	1978	Casting and Curing	Contrib	JPL Edwards Test Station
4305	1942	Hangar, Maintenance	Indiv	N/A
4800	1953	Headquarters	Indiv	N/A
4802	1953	Hangar, Main	Indiv	N/A
5790	1969	Electric Research Engineering	Indiv	N/A
8424	1964	Prototype Metal Construction	Indiv	Phillips Laboratory
8451	1957	Propulsion Research Laboratory, Air Breathing	Indiv	Phillips Laboratory
8472	1961	Control Room, Solid Propellant Cells	Contrib	Phillips Laboratory
8473	1961	Liquid Test Building	Contrib	Phillips Laboratory
8620	1956	Hydrodynamics Laboratory	Contrib	Phillips Laboratory
8624	1961	Propellant Engine Test Cells	Contrib	Phillips Laboratory

Table E-1 (Continued). Buildings Eligible/Listed on the National Register for Historic Places (NRHP)

Facility Number	Date of Construction	Type/Nomenclature (Name)	NRHP Eligibility	Historic District
8626	1960	Solar Laboratory	Contrib	Phillips Laboratory
8635	1962	Centrifuge Facility	Contrib	Phillips Laboratory
8641	1952	Test Stand	Contrib	Phillips Laboratory
8649	1955	Test Stand	Contrib	Phillips Laboratory
8668	1952	Control Building	Contrib	Phillips Laboratory
8698	1952	Test Stand	Contrib	Phillips Laboratory
8752	1960	Equipment Research Test	Contrib	Phillips Laboratory
8755	1956	Water Pump Station	Contrib	Phillips Laboratory
8762	1956	Missile/Space Research Engineering	Contrib	Phillips Laboratory
8765	1956	Equipment Research Test	Contrib	Phillips Laboratory
8780	1960	Missile/Space Research Test Facility	Contrib	Phillips Laboratory
8781	1960	Equipment Research Test	Contrib	Phillips Laboratory
8783	1956	Storage Building	Contrib	Phillips Laboratory
8810	1964	Propellant Engine Test Stand	Contrib	Phillips Laboratory
8820	1964	Propellant Engine Test Stand	Contrib	Phillips Laboratory
8832	1964	Propellant Engine Test Stand	Contrib	Phillips Laboratory
8844	1964	Aircraft Research Test	Contrib	Phillips Laboratory
8911	1960	Missile/Space Research Test, Control Building	Contrib	Phillips Laboratory
8912	1962	Propellant Engine Test Stand	Contrib	Phillips Laboratory
8955	1959	Control Building	Contrib	Phillips Laboratory
8959	1959	Propellant Engine Test Stand	Contrib	Phillips Laboratory
8960	1959	Propellant Engine Test Stand	Contrib	Phillips Laboratory
9623	1967	Propellant Engine Test Stand	Contrib	Phillips Laboratory
9625	1967	Propulsion Research Laboratory, Air Breathing	Contrib	Phillips Laboratory
9628	1964	Propellant Engine Research	Contrib	Phillips Laboratory
9630	1964	Propulsion Research Laboratory, Air Breathing	Contrib	Phillips Laboratory
N/A	1942	Aircraft Revetment - 8 (OU2-272)	Contrib	N/A
N/A	1942	Aircraft Revetment - 9 (OU2-45)	Indiv	N/A

Table E-1 (Concluded). Buildings Eligible/Listed on the National Register for Historic Places (NRHP)

Facility Number	Date of Construction	Type/Nomenclature (Name)	NRHP Eligibility	Historic District
N/A	1946	X-1 Loading Pit (Yeager's Pit)	Indiv	N/A
N/A	1960	X-15 Engine Test Stand	Indiv	X-15
N/A	1960	X-15 Engine Test Stand	Indiv	X-15

Notes:
1. Contrib – NRHP eligible as contributing element of historic district
2. Indiv – Individually eligible for NRHP
3. JPL – Jet Propulsion Laboratory
4. Lab – Laboratory
5. N/A – Not available
6. N/D – No date
7. sic – Denotes spelling as shown in the database

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Table E-2. Archaeological Sites Eligible/Listed on the National Register of Historic Places (NRHP)

EAFB Site Number	Trinomial	Era	Type
1	CA-KER-560H	Historic	Railroad
1	CA-SBR-6693H	Historic	Railroad
2	CA-KER-695H	Historic	Townsite/Settlement
3	CA-KER-1892/H	Historic	Homesite
9	CA-KER-2125/H	Historic	Homesite
19	CA-KER-1819H	Historic	Homesite
36	CA-KER-2557H	Historic	Homesite
43	CA-LAN-1067/H	Historic	Homesite
44	CA-LAN-1926H	Historic	Homesite
64	CA-LAN-1491H	Historic	Homesite
67	CA-LAN-1289/H	Historic	Homesite
69	CA-KER-1785H	Historic	Homesite
70	CA-LAN-1802H	Historic	Homesite
74	CA-LAN-1794H	Historic	Homesite
79	CA-LAN-1795H	Historic	Mining-related Site
84	CA-LAN-2178H	Military	Inactive Military Facility
86	CA-KER-1822H	Historic	Homesite
90	CA-KER-1816H	Historic	Homesite
91	CA-KER-1925H	Historic	Homesite
97	CA-KER-1856H	Historic	Homesite
99	CA-KER-1842H	Historic	Homesite
100	CA-KER-531H	Historic	Homesite
103	CA-KER-6605H	Historic	Mining-related Site
105	CA-KER-4057H	Historic	Homesite
120	CA-LAN-1806H	Historic	Homesite
121	CA-LAN-1703H	Historic	Homesite
122	CA-LAN-1385H	Historic	Homesite
123	CA-LAN-1386H	Historic	Homesite
124	CA-LAN-1386H	Historic	Homesite
126	CA-LAN-2092H	Historic	Homesite
131	CA-KER-1827/H	Historic	Railroad Stop
133	CA-KER-3383H	Historic	Homesite
138	CA-KER-6082H	Historic	Mining-related Site
167	CA-KER-2031H	Military	Inactive Military Facility
171	CA-SBR-7334H	Historic	Mining-related Site
172	CA-SBR-7338H	Historic	Mining-related Site
173	CA-SBR-10718H	Historic	Mining-related Site
175	CA-SBR-10775H	Historic	Mining-related Site
189	CA-LAN-1471H	Historic	Homesite
201	CA-LAN-863/H	Prehistoric	Base Camp/Village
202	CA-SBR-5789	Prehistoric	Temporary Camp
207	CA-LAN-1158	Prehistoric	Temporary Camp

Table E-2 (Continued). Archaeological Sites Eligible/Listed on the National Register of Historic Places (NRHP)

EAFB Site Number	Trinomial	Era	Type
214	CA-LAN-1157/H	Prehistoric	Temporary Camp
225	CA-KER-490	Prehistoric	Temporary Camp
233	CA-KER-500	Prehistoric	Temporary Camp
234	CA-KER-501	Prehistoric	Temporary Camp
238	CA-KER-505/H	Prehistoric	Temporary Camp
240	CA-KER-525/H	Prehistoric	Base Camp/Village
241	CA-KER-526	Prehistoric	Temporary Camp
270	CA-KER-565	Prehistoric	Bone Deposit/Nonhuman
296	CA-KER-1161	Prehistoric	Temporary Camp
302	CA-KER-1167H	Historic	Homesite
303	CA-KER-1168	Prehistoric	Temporary Camp
324	CA-KER-1830	Prehistoric	Temporary Camp
333	CA-KER-1189	Prehistoric	Temporary Camp
351	CA-KER-1755	Prehistoric	Temporary Camp
360	CA-KER-1763	Prehistoric	Temporary Camp
361	CA-KER-1764/H	Prehistoric	Temporary Camp
370	CA-KER-1841H	Historic	Homesite
372	CA-KER-1843H	Historic	Homesite
374	CA-KER-1769	Prehistoric	Temporary Camp
382	CA-KER-1880	Prehistoric	Utilized Rock Shelter
385	CA-KER-1771	Prehistoric	Temporary Camp
386	CA-KER-1883/H	Prehistoric	Temporary Camp
387	CA-KER-1884	Prehistoric	Lithic Deposit
388	CA-KER-1885	Prehistoric	Milling Station
400	CA-LAN-1189/H	Prehistoric	Temporary Camp
411	CA-KER-1889	Prehistoric	Temporary Camp
419	CA-LAN-1208	Prehistoric	Temporary Camp
423	CA-KER-1922/H	Prehistoric	Base Camp/Village
434	CA-KER-1810/H	Prehistoric	Temporary Camp
437	CA-KER-1813	Prehistoric	Temporary Camp
512	CA-SBR-5321/H	Prehistoric	Temporary Camp
562	CA-KER-2009/H	Prehistoric	Temporary Camp
568	CA-KER-2016	Prehistoric	Temporary Camp
579	CA-KER-2024H	Historic	Homesite
592	CA-KER-2030H	Historic	Mining-related Site
593	CA-KER-2020H	Military	Inactive Military Facility
596	CA-KER-2038/H	Prehistoric	Temporary Camp
598	CA-KER-2053/H	Prehistoric	Temporary Camp
599	CA-KER-2054/H	Historic	Mining-related Site
619	CA-KER-2082	Prehistoric	Milling Station
630	CA-LAN-1283/H	Prehistoric	Temporary Camp
632	CA-KER-2125/H	Prehistoric	Temporary Camp

Table E-2 (Continued). Archaeological Sites Eligible/Listed on the National Register of Historic Places (NRHP)

EAFB Site Number	Trinomial	Era	Type
666	CA-KER-2129	Prehistoric	Base Camp/Village
688	CA-KER-2131	Prehistoric	Temporary Camp
702	CA-LAN-1542H	Historic	Homesite
704	CA-LAN-1566H	Historic	Homesite
709	CA-LAN-3148	Historic	Agricultural Feature
714	CA-LAN-1501H	Historic	Mining-related Site
719	CA-LAN-1408H	Historic	Homesite
724	CA-LAN-1545H	Historic	Homesite
744	CA-LAN-1310/H	Historic	Homesite
750	CA-LAN-1729H	Historic	Homesite
760	CA-LAN-1557H	Historic	Homesite
776	CA-LAN-1812H	Historic	Mining-related Site
789	CA-KER-3981H	Historic	Homesite
810	CA-SBR-810	Military	Lakebed
827	CA-SBR-827	Military	Active Military Facility
830	CA-KER-2391H	Military	Inactive Military Facility
835	CA-LAN-1316	Prehistoric	Lithic Deposit
860	CA-LAN-1317	Prehistoric	Temporary Camp
876	CA-KER-2200	Prehistoric	Pictograph
905	CA-KER-2239H	Historic	Homesite
940	CA-KER-695H	Historic	Homesite
945	CA-KER-2378	Prehistoric	Temporary Camp
946	CA-LAN-1812H	Historic	Mining-related Site
949	CA-KER-2291	Prehistoric	Roasting Pit/Hearth
951	CA-KER-3945H	Historic	Mining-related Site
990	CA-KER-2373H	Historic	Homesite
1000	CA-LAN-1296/H	Prehistoric	Base Camp/Village
1017	CA-SBR-1017	Historic	Still Site
1019	CA-KER-2372H	Historic	Homesite
1029	CA-LAN-3056H	Historic	Homesite
1039	CA-KER-2482/H	Prehistoric	Temporary Camp
1040	CA-LAN-1585	Prehistoric	Temporary Camp
1069	CA-LAN-1702/H	Prehistoric	Temporary Camp
1118	CA-LAN-1720	Prehistoric	Temporary Camp
1150	CA-KER-2816	Prehistoric	Temporary Camp
1151	CA-KER-2817	Prehistoric	Temporary Camp
1173	CA-KER-2966	Prehistoric	Temporary Camp
1174	CA-KER-2967/H	Prehistoric	Temporary Camp
1175	CA-KER-2968	Prehistoric	Roasting Pit/Hearth
1178	CA-KER-2975/H	Prehistoric	Temporary CAmp
1180	CA-KER-2997H	Historic	Mining-related Site
1225	CA-KER-3273/H	Prehistoric	Temporary Camp

Table E-2 (Continued). Archaeological Sites Eligible/Listed on the National Register of Historic Places (NRHP)

EAFB Site Number	Trinomial	Era	Type
1232	CA-KER-3361	Prehistoric	Temporary Camp
1233	CA-KER- 3362/H	Prehistoric	Temporary Camp
1270	CA-SBR-7333H	Historic	Mining-related Site
1272	CA-SBR-7336H	Historic	Mining-related Site
1273	CA-SBR-7337H	Historic	Mining-related Site
1274	CA-SBR-7339H	Historic	Mining-related Site
1287	CA-KER-3454H	Historic	Mining-related Site
1288	CA-KER-3455H	Historic	Mining-related Site
1290	CA-KER-3457H	Historic	Mining-related Site
1291	CA-KER-3458H	Historic	Mining-related Site
1292	CA-SBR-7344	Prehistoric	Temporary Camp
1293	CA-KER-3459H	Historic	Mining-related Site
1294	CA-KER-3460H	Historic	Mining-related Site
1301	CA-KER-3468H	Historic	Rock Feature
1304	CA-KER-3467H	Historic	Mining-related Site
1316	CA-KER-3874/H	Prehistoric	Temporary Camp
1317	CA-KER-3875/H	Prehistoric	Temporary Camp
1319	CA-KER-3876/H	Prehistoric	Temporary Camp
1340	CA-KER-4773/H	Prehistoric	Temporary Camp
1417	CA-KER-1922/H	Historic	Refuse Deposit
1430	CA-KER-3917H	Historic	Refuse Deposit
1514	CA-KER-4062H	Historic	Refuse Deposit
1516	CA-KER-4059H	Historic	Refuse Deposit
1525	CA-KER-4152	Prehistoric	Temporary Camp
1544	CA-KER-4081	Prehistoric	Temporary Camp
1620	CA-KER-4277	Prehistoric	Temporary Camp
1694	CA-LAN-2271	Prehistoric	Temporary Camp
1717	CA-LAN-2300H	Historic	Refuse Deposit
1721	CA-LAN-2302	Prehistoric	Temporary Camp
1788	CA-SBR-8169H	Historic	Mining-related Site
1819	CA-KER-4370H	Historic	Mining-related Site
1821	CA-KER-4372H	Historic	Mining-related Site
1896	CA-SBR-8211H	Historic	Mining-related Site
1902	CA-SBR-8201H	Historic	Mining-related Site
1909	CA-SBR-8209H	Historic	Mining-related Site
1910	CA-SBR-8242H	Historic	Mining-related Site
1911	CA-SBR-8243H	Historic	Mining-related Site
1938	CA-SBR-9507	Prehistoric	Temporary Camp
1984	CA-KER-4472H	Historic	Refuse Deposit
2023	CA-LAN-2399	Prehistoric	Temporary Camp
2132	CA-LAN-2422	Prehistoric	Temporary Camp
2145	CA-LAN-2432	Prehistoric	Lithic Deposit

Table E-2 (Continued). Archaeological Sites Eligible/Listed on the National Register of Historic Places (NRHP)

EAFB Site Number	Trinomial	Era	Type
2171	CA-LAN-2503	Prehistoric	Temporary Camp
2221	CA-KER-4982H	Historic	Refuse Deposit
2267	CA-LAN-2511	Prehistoric	Temporary Camp
2283	CA-KER-4995	Prehistoric	Temporary Camp
2290	CA-KER-4985	Prehistoric	Lithic Deposit
2299	CA-KER-4953	Prehistoric	Pictograph
2302	CA-KER-4956	Prehistoric	Roasting Pit/Hearth
2315	CA-KER-4980H	Historic	Homesite
2411	CA-KER-5025H	Historic	Mining-related Site
2442	CA-KER-6029	Prehistoric	Roasting Pit/Hearth
2476	CA-KER-5156	Prehistoric	Lithic Deposit
2669	CA-SBR-9492H	Historic	Mining-related Site
2681	CA-KER-5284H	Historic	Mining-related Site
2715	CA-KER-5339H	Historic	Mining-related Site
2836	CA-LAN-2685H	Historic	Mining-related Site
2838	CA-KER-5716	Prehistoric	Temporary Camp
2839	CA-KER-5717	Prehistoric	Temporary Camp
2885	CA-SBR-9889H	Historic	Mining-related Site
2921	CA-SBR-8912H	Historic	Mining-related Site
2932	CA-KER-5744H	Historic	Mining-related Site
2956	CA-LAN-1289/H	Prehistoric	Temporary Camp
2977	CA-LAN-1232/H	Prehistoric	Lithic Deposit
2984	CA-KER-2053/H	Historic	Mining-related Site
3010	CA-KER-2975/H	Historic	Mining-related Site
3030	CA-KER-5626	Prehistoric	Temporary Camp
3032	CA-KER-5627	Prehistoric	Temporary Camp
3051	CA-LAN-1310/H	Prehistoric	Temporary Camp
3066	CA-KER-5677H	Historic	Mining-related Site
3098	CA-KER-5756	Prehistoric	Roasting Pit/Hearth
3128	CA-KER-6047	Prehistoric	Base Camp/Village
3132	CA-KER-5829H	Historic	Mining-related Site
3138	CA-SBR-10634H	Historic	Mining-related Site
3221	CA-SBR-10729H	Historic	Mining-related Site
3222	CA-SBR-10730H	Historic	Mining-related Site
3223	CA-SBR-10731H	Historic	Mining-related Site
3224	CA-SBR-10732H	Historic	Mining-related Site
3225	CA-SBR-10733H	Historic	Mining-related Site
3226	CA-SBR-10734H	Historic	Mining-related Site
3246	CA-SBR-10749H	Historic	Mining-related Site
3247	CA-SBR-10750H	Historic	Mining-related Site
3259	CA-SBR-10761H	Historic	Mining-related Site
3262	CA-SBR-10764H	Historic	Mining-related Site

Table E-2 (Concluded). Archaeological Sites Eligible/Listed on the National Register of Historic Places (NRHP)

EAFB Site Number	Trinomial	Era	Type
3263	CA-SBR-10765H	Historic	Refuse Deposit
3268	CA-SBR-10769H	Historic	Mining-related Site
3302	CA-KER-6302H	Historic	Refuse Deposit
3311	CA-SBR-10777H	Historic	Mining-related Site
3375	CA-KER-525/H	Historic	Refuse Deposit
3436	CA-SBR-11569H	Historic	Mining-related Site
3437	CA-SBR-11570H	Historic	Mining-related Site
3490	CA-KER-6616	Prehistoric	Roasting Pit/Hearth

APPENDIX F
SECRETARY OF THE INTERIOR'S STANDARDS FOR BASE HISTORIC PRESERVATION OFFICER

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SECRETARY OF THE INTERIOR'S STANDARDS FOR BASE HISTORIC PRESERVATION OFFICE (BHPO)

The Secretary of the Interior's Standards and Guidelines
for
Federal Agency Historic Preservation Programs
Pursuant to the National Historic Preservation Act
(Related standards for BHPOs)

Published in Final
Federal Register 24 April 1998

Section 110 of the National Historic Preservation Act (16 U.S.C. 470) Preservation Officer

Preservation standards for federally owned properties

(h) Within 1 year after December 12, 1980 [the date of enactment of the National Historic Preservation Act Amendments of 1980], the Secretary shall establish, in consultation with the Secretaries of Agriculture and Defense, the Smithsonian Institution, and the Administrator of the General Services Administration, professional standards for the preservation of historic properties in Federal ownership or control.

(k) The agency position responsible for coordinating the preservation program is the Preservation Officer required of all agencies by section 110(c) of the NHPA (unless specifically exempted under section 214 of the NHPA). A Preservation Officer may have other agency duties in addition to historic preservation coordination, depending on the magnitude and degree of the agency's historic preservation activities and responsibilities. [Sec. 110(c)].

(l) Agency officials designated as Preservation Officers should have substantial experience administering Federal historic preservation activities and/or specifically assigned staff under their supervision who have such experience. Section 112 of the NHPA requires that agency personnel or contractors responsible for historic resources, meet qualification standards established by the Office of Personnel Management in consultation with the Secretary.

(m) Each Preservation Officer should have sufficient agency-wide authority, staff, and other resources to carry out section 110 responsibilities effectively. Agency administrative systems should ensure that the Preservation Officer can review and comment meaningfully on all agency programs and activities and interact with the agency's planning and project management systems in such a way as to influence decisions potentially affecting historic resources. The Preservation Officer should have sufficient authority and the agency should have sufficient control systems to ensure that decisions made pursuant to sections 106 and 110 about the treatment of such resources are in fact carried out.

(n) In agencies where significant preservation responsibilities are delegated to regional or field offices, or Federal facilities or installations, the agency head should also appoint qualified preservation officials at those levels. Such officials should ensure that their actions and conduct of historic preservation activities are coordinated with, and consistent with, those of the central office Preservation Officer for that agency.

(o) The agency should ensure that its personnel management system identifies those personnel with preservation responsibilities, includes such responsibilities in their position descriptions and performance elements and standards, and appropriately rewards high-quality performance. In addition, the agency should provide for ongoing training in historic preservation for all agency personnel with preservation responsibilities.

APPENDIX G
ARCHAEOLOGICAL SITES AND TYPES ON EDWARDS AIR FORCE BASE (EAFB)

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Table G-1. Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1	CA-KER-560H	Historic	Railroad Bed	E
1	CA-SBR-6693H	Historic	Railroad Bed	E
2	CA-KER-695H	Historic	Townsite – Muroc	E
3	CA-KER-1892/H	Historic	Homesite/Homestead	E
4	CA-KER-2285H	Historic	Agricultural Feature, Well	U
5	CA-KER-2481H	Historic	Homesite/Homestead	U
6	CA-KER-2286H	Historic	Mine, Open Pit	U
7	CA-KER-2287H	Historic	Homesite/Homestead	U
8	CA-KER-2734H	Historic	Homesite/Homestead	U
9	CA-KER-2125/H	Historic	Homesite/Homestead	E
10	CA-KER-2735H	Historic	Homesite/Homestead	U
12	CA-KER-2296H	Historic	Homesite/Homestead	U
13	CA-KER-2297H	Historic	Homesite/Homestead	U
16	CA-KER-2530H	Historic	Homesite/Homestead	U
17	CA-KER-2523H	Historic	Homesite/Homestead	U
18	CA-KER-1819H	Historic	Historic Period Refuse Deposit	U
19	CA-KER-1819H	Historic	Homesite/Homestead	E
20	CA-KER-1820H	Historic	Homesite/Homestead	U
23	CA-KER-1709H	Historic	Homesite/Homestead	U
26	CA-KER-1808H	Historic	Homesite/Homestead	U
27	CA-KER-4186H	Military	Inactive Building/Facility – Foundations/Ruins, 5-Inch Rocket Stand	U
28	CA-KER-6081H	Military	Inactive Building/Facility – Target	U
31	CA-KER-2483H	Historic	Homesite/Homestead	U
33	CA-LAN-1925H	Historic	Homesite/Homestead	U
34	CA-LAN-1844H	Historic	Recreation Site – Duck Club	U
36	CA-KER-2557H	Historic	Homesite/Homestead	U
37	CA-KER-1844H	Historic	Homesite/Homestead	I
38	CA-KER-2447H	Historic	Homesite/Homestead	U
39	CA-LAN-1498H	Historic	Homesite/Homestead	U
40	CA-LAN-1464H	Historic	Recreation Site – Duck Club	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
41	CA-LAN-1564H	Historic	Homesite/Homestead	U
43	CA-LAN-1067/H	Historic	Homesite/Homestead	U
44	CA-LAN-1926H	Historic	Homesite/Homestead	U
45	CA-KER-2394H	Historic	Homesite/Homestead	U
46	CA-KER-2393H	Historic	Homesite/Homestead	I
47	CA-KER-1845H	Historic	Homesite/Homestead	U
50	CA-LAN-2519H	Historic	Agricultural Feature, Rice Paddies	U
51	CA-LAN-1551H	Historic	Homesite/Homestead	U
52	CA-LAN-1558H	Historic	Homesite/Homestead	U
53	CA-LAN-1405H	Historic	Homesite/Homestead	U
54	CA-LAN-1864H	Historic	Homesite/Homestead	U
55	CA-LAN-1406H	Historic	Homesite/Homestead	U
56	CA-LAN-1549H	Historic	Agricultural Feature	U
57	CA-LAN-1490H	Historic	Homesite/Homestead	U
58	CA-LAN-1548H	Historic	Homesite/Homestead	U
59	CA-LAN-1485H	Historic	Homesite/Homestead	U
60	CA-LAN-1927H	Historic	Homesite/Homestead	U
61	CA-LAN-1832H	Historic	Mine, Drilling Site – Oil	U
62	CA-LAN-1928H	Historic	Homesite/Homestead	U
63	CA-LAN-1563H	Historic	Homesite/Homestead	U
64	CA-LAN-1491H	Historic	Homesite/Homestead	U
65	CA-LAN-1922H	Historic	Homesite/Homestead	U
66	CA-LAN-1556H	Historic	Homesite/Homestead	U
67	CA-LAN-1289/H	Historic	Historic Period Refuse Deposit	U
69	CA-KER-1785H	Historic	Homesite/Homestead	U
70	CA-LAN-1802H	Historic	Homesite/Homestead	U
71	CA-LAN-1477H	Historic	Homesite/Homestead	U
72	CA-LAN-1387H	Historic	Homesite/Homestead	I
73	CA-LAN-1503H	Historic	Homesite/Homestead	U
74	CA-LAN-1794H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
77	CA-LAN-1920H	Historic	Homesite/Homestead	I
79	CA-LAN-1795H	Historic	Mine Related	U
80	CA-LAN-1482H	Historic	Homesite/Homestead	U
82	CA-LAN-3074	Historic	Agricultural Feature	U
77	CA-LAN-1920H	Historic	Homesite/Homestead	I
79	CA-LAN-1795H	Historic	Mine Related	U
80	CA-LAN-1482H	Historic	Homesite/Homestead	U
82	CA-LAN-3074	Historic	Agricultural Feature	U
87	CA-KER-1815H	Historic	Homesite/Homestead	U
89	CA-KER-2688H	Historic	Homesite/Homestead	U
90	CA-KER-1816H	Historic	Homesite/Homestead	E
91	CA-KER-1925H	Historic	Homesite/Homestead	E
92	CA-KER-2449H	Historic	Homesite/Homestead	I
93	CA-KER-2689H	Historic	Homesite/Homestead	I
94	CA-KER-6021H	Military	Inactive Building/Facility – Target, Muroc Maru	U
95	CA-KER-2442H	Historic	Homesite/Homestead	U
96	CA-KER-2377H	Historic	Homesite/Homestead	U
97	CA-KER-1856H	Historic	Homesite/Homestead	E
98	CA-KER-2445H	Historic	Homesite/Homestead	U
99	CA-KER-1842H	Historic	Homesite/Homestead	E
100	CA-KER-531H	Historic	Homesite/Homestead	E
104	CA-KER-6183H	Historic	Agricultural Feature	U
105	CA-KER-4057H	Historic	Homesite/Homestead	E
107	CA-KER-2690H	Historic	Homesite/Homestead	U
108	CA-KER-2691H	Historic	Homesite/Homestead	U
109	CA-KER-2339H	Military	Inactive Building/Facility – Foundation/Ruins	I
110	CA-KER-2340H	Historic	Homesite/Homestead	I
112	CA-KER-6022H	Historic	Homesite/Homestead	I
113	CA-KER-6170H	Historic	Homesite/Homestead	U
115	CA-LAN-1796H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
117	CA-LAN-1567H	Historic	Homesite/Homestead	U
118	CA-LAN-1724H	Historic	Homesite/Homestead	U
119	CA-LAN-1708H	Historic	Homesite/Homestead	U
120	CA-LAN-1806H	Historic	Homesite/Homestead	U
121	CA-LAN-1703H	Historic	Homesite/Homestead	U
122	CA-LAN-1385H	Historic	Homesite/Homestead	U
123	CA-LAN-1386H	Historic	Homesite/Homestead	E
124	CA-LAN-1386H	Historic	Homesite/Homestead	E
125	CA-LAN-2100H	Historic	Homesite/Homestead	U
126	CA-LAN-2092H	Historic	Homesite/Homestead	E
127	CA-LAN-1800H	Historic	Homesite/Homestead	I
128	CA-KER-2444H	Historic	Homesite/Homestead	U
130	CA-KER-2563H	Historic	Homesite/Homestead	U
131	CA-KER-1827/H	Historic	Railroad Stop	E
132	CA-KER-1893/H	Historic	Homesite/Homestead	I
133	CA-KER-3383H	Historic	Homesite/Homestead	U
134	CA-KER-3384H	Historic	Homesite/Homestead	U
135	CA-KER-1180/H	Historic	Homesite/Homestead	U
136	CA-KER-3385H	Historic	Agricultural Feature	U
137	CA-KER-4597H	Historic	Homesite/Homestead	U
138	CA-KER-6082H	Historic	Mine Related	U
139	CA-KER-4598H	Military	Inactive Building/Facility – Foundation/Ruins	U
140	CA-KER-4259H	Historic	Homesite/Homestead	U
141	CA-KER-6083H	Historic	Agricultural Feature, Well	U
143	CA-KER-6173H	Historic	Homesite/Homestead	U
144	CA-SBR-10801H	Historic	Mine, Developed Shaft	U
145	CA-KER-3846H	Historic	Homesite/Homestead	U
146	CA-KER-2307H	Historic	Homesite/Homestead	I
147	CA-KER-2308H	Historic	Homesite/Homestead	I
148	CA-KER-2306H	Historic	Agricultural Feature	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
149	CA-KER-3881H	Historic	Homesite/Homestead	U
150	CA-KER-3882H	Historic	Homesite/Homestead	U
151	CA-KER-3883H	Historic	Homesite/Homestead	U
155	CA-KER-525/H	Historic	Homesite/Homestead	U
156	CA-KER-6084H	Historic	Homesite/Homestead	U
157	CA-KER-4489H	Historic	Mine, Developed Shaft	U
159	CA-KER-6486H	Historic	Mine, Developed Shaft	U
166	CA-KER-XXXX	Historic	Mine Related	U
167	CA-KER-2031H	Military	Inactive Building/Facility – Hap Arnold's Camp	E
168	CA-SBR-10717H	Historic	Mine, Camp/Occupation	U
169	CA-SBR-10774H	Historic	Mine Related	U
170	CA-SBR-7117H	Historic	Homesite/Homestead	U
171	CA-SBR-7334H	Historic	Mine, Camp/Occupation	E
172	CA-SBR-7338H	Historic	Mine, Open Pit	E
173	CA-SBR-10718H	Historic	Mine, Camp/Occupation	U
174	CA-SBR-8152H	Historic	Mine Related	U
175	CA-SBR-10775H	Historic	Mine, Camp/Occupation	U
179	CA-LAN-714/H	Prehistoric	Lithic Deposit	U
180	CA-LAN-715	Prehistoric	Temporary Camp	U
181	CA-LAN-716	Prehistoric	Temporary Camp	U
182	CA-LAN-720H	Historic	Homesite/Homestead	U
183	CA-LAN-1478H	Historic	Homesite/Homestead	U
184	CA-LAN-1479H	Historic	Homesite/Homestead	U
185	CA-LAN-1441H	Historic	Homesite/Homestead	U
186	CA-KER-2155	Prehistoric	Lithic Deposit	U
187	CA-LAN-1500H	Historic	Homesite/Homestead	I
188	CA-LAN-1496H	Historic	Historic Period Refuse Deposit	U
189	CA-LAN-1471H	Historic	Homesite/Homestead	U
190	CA-LAN-768	Prehistoric	Temporary Camp	U
191	CA-LAN-769/H	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
192	CA-KER-1873	Prehistoric	Milling Station – Bedrock Mortar	U
193	CA-KER-1872H	Historic	Historic Period Rock Feature – Circle	U
194	CA-KER-1818H	Historic	Homesite/Homestead	U
197	CA-LAN-773H	Historic	Historic Period Refuse Deposit	U
198	CA-LAN-787	Prehistoric	Temporary Camp	U
199	CA-LAN-796	Prehistoric	Base Camp/Village	I
201	CA-LAN-863/H	Prehistoric	Base Camp/Village	E
202	CA-SBR-5789	Prehistoric	Temporary Camp	E
203	CA-LAN-1100	Prehistoric	Temporary Camp	U
204	CA-LAN-1101	Prehistoric	Lithic Deposit	I
205	CA-LAN-1102	Prehistoric	Lithic Deposit	I
206	CA-LAN-1103	Prehistoric	Temporary Camp	U
207	CA-LAN-1158	Prehistoric	Temporary Camp	E
219	CA-KER-476	Prehistoric	Lithic Deposit	U
220	CA-KER-477/H	Prehistoric	Temporary Camp	U
220	CA-LAN-2254	Prehistoric	Temporary Camp	I
221	CA-KER-486	Prehistoric	Lithic Deposit	U
222	CA-KER-487/H	Prehistoric	Temporary Camp	U
223	CA-KER-488H	Historic	Agricultural Feature	U
224	CA-KER-489H	Historic	Agricultural Feature	U
225	CA-KER-490	Prehistoric	Temporary Camp	E
226	CA-KER-493H	Historic	Homesite/Homestead	I
227	CA-KER-494	Prehistoric	Milling Station – Bedrock Milling Slick	U
228	CA-KER-495	Prehistoric	Milling Station – Bedrock Milling Slick	U
229	CA-KER-496/H	Prehistoric	Bone Deposit/Nonhuman	U
230	CA-KER-497	Prehistoric	Milling Station – Bedrock Milling Slick	U
231	CA-KER-498	Prehistoric	Milling Station – Bedrock Milling Slick	U
232	CA-KER-499	Prehistoric	Milling Station – Bedrock Milling Slick	U
233	CA-KER-500	Prehistoric	Temporary Camp	E
234	CA-KER-501	Prehistoric	Temporary Camp	E

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
235	CA-KER-502	Prehistoric	Prehistoric Rock Alignments/Features – Rock Rings	U
236	CA-KER-503	Prehistoric	Lithic Deposit	U
237	CA-KER-504	Prehistoric	Bone Deposit/Nonhuman	U
238	CA-KER-505/H	Prehistoric	Temporary Camp	E
239	CA-KER-524	Prehistoric	Temporary Camp	U
240	CA-KER-525/H	Prehistoric	Base Camp/Village	E
241	CA-KER-526	Prehistoric	Temporary Camp	E
242	CA-KER-527	Prehistoric	Lithic Deposit	U
243	CA-KER-528H	Historic	Mine Related	U
244	CA-KER-529	Prehistoric	Hearth/Roasting Pit	U
245	CA-KER-532H	Historic	Homesite/Homestead	U
246	CA-KER-533	Prehistoric	Temporary Camp	I
247	CA-KER-534	Prehistoric	Temporary Camp	U
248	CA-KER-535	Prehistoric	Milling Station – Bedrock Mortar	U
249	CA-KER-536	Prehistoric	Milling Station – Bedrock Milling Slick	U
250	CA-KER-538	Prehistoric	Milling Station – Bedrock Milling Slick	U
251	CA-KER-539H	Historic	Mine, Drilling Site	I
252	CA-KER-539H	Prehistoric	Hearth/Roasting Pit	U
253	CA-KER-541	Prehistoric	Bone Deposit/Nonhuman	U
254	CA-KER-542	Prehistoric	Milling Station – Bedrock Milling Slick	U
255	CA-KER-543	Prehistoric	Milling Station – Bedrock Milling Slick	U
256	CA-KER-546	Prehistoric	Milling Station – Bedrock Milling Slick	U
258	CA-KER-548	Prehistoric	Bone Deposit/Nonhuman	U
259	CA-KER-549	Prehistoric	Temporary Camp	U
260	CA-LAN-1159	Prehistoric	Temporary Camp	U
261	CA-KER-552	Prehistoric	Milling Station – Bedrock Milling Slick	U
262	CA-LAN-1160	Prehistoric	Temporary Camp	U
263	CA-KER-553	Prehistoric	Lithic Deposit	U
264	CA-KER-561/H	Historic	Homesite/Homestead	U
265	CA-KER-1823H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
266	CA-KER-563H	Historic	Historic Period Refuse Deposit	U
267	CA-KER-1824	Prehistoric	Temporary Camp	U
268	CA-KER-1825	Prehistoric	Lithic Deposit	U
269	CA-KER-564	Prehistoric	Temporary Camp	I
270	CA-KER-565	Prehistoric	Bone Deposit/Nonhuman	U
271	CA-KER-600H	Military	Inactive Building/Facility – Foundation/Ruins, WWII Transit Station	U
272	CA-KER-607	Prehistoric	Milling Station – Portable Metate or Mortar	U
276	CA-KER-673/H	Prehistoric	Temporary Camp	I
276	CA-LAN-2388/H	Prehistoric	Temporary Camp	I
277	CA-KER-1826	Prehistoric	Temporary Camp	U
282	CA-KER-697	Prehistoric	Quarry/Lithic Source – Exploited Bedrock Source	U
284	CA-KER-699	Prehistoric	Base Camp/Village	U
286	CA-KER-701H	Historic	Homesite/Homestead	I
287	CA-KER-702/H	Historic	Historic Period Refuse Deposit	U
288	CA-LAN-1207	Prehistoric	Temporary Camp	I
289	CA-KER-703H	Historic	Historic Period Refuse Deposit	U
290	CA-KER-704	Prehistoric	Lithic Deposit	U
291	CA-KER-706H	Military	Active Building/Facility – South Base Complex	I
291	CA-KER-706H	Historic	Historic Period Refuse Deposit	I
291	CA-KER-706H	Military	Inactive Building/Facility – Foundation/Ruins	I
291	CA-KER-706H	Military	Inactive Building/Facility – South Base Complex	I
292	CA-KER-707H	Historic	Homesite/Homestead	U
294	CA-KER-711	Prehistoric	Lithic Deposit	U
295	CA-KER-713	Prehistoric	Lithic Deposit	U
296	CA-KER-1161/H	Prehistoric	Temporary Camp	E
297	CA-KER-1162	Prehistoric	Rock Shelter	U
298	CA-KER-1163	Prehistoric	Lithic Deposit	U
299	CA-KER-1164	Prehistoric	Lithic Deposit	U
300	CA-KER-1165	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
301	CA-KER-1166	Prehistoric	Lithic Deposit	U
302	CA-KER-1167H	Historic	Homesite/Homestead	E
303	CA-KER-1168	Prehistoric	Lithic Deposit	P
304	CA-KER-1169	Prehistoric	Lithic Deposit	U
305	CA-KER-1161	Prehistoric	Temporary Camp	U
308	CA-KER-1172	Prehistoric	Temporary Camp	U
309	CA-KER-1173	Prehistoric	Temporary Camp	U
310	CA-KER-1174	Prehistoric	Temporary Camp	U
311	CA-KER-1175	Prehistoric	Temporary Camp	U
312	CA-KER-1176	Prehistoric	Temporary Camp	U
313	CA-LAN-1162	Prehistoric	Temporary Camp	U
314	CA-KER-1177	Prehistoric	Temporary Camp	U
315	CA-KER-1178H	Historic	Homesite/Homestead	U
316	CA-KER-1179	Prehistoric	Lithic Deposit	I
317	CA-KER-1180/H	Prehistoric	Temporary Camp	I
318	CA-KER-1181/H	Prehistoric	Lithic Deposit	U
319	CA-LAN-1163/H	Prehistoric	Lithic Deposit	U
320	CA-KER-1828	Prehistoric	Temporary Camp	I
321	CA-LAN-1164	Prehistoric	Temporary Camp	I
322	CA-KER-1182	Prehistoric	Temporary Camp	U
323	CA-KER-1829	Prehistoric	Temporary Camp	U
324	CA-KER-1830	Prehistoric	Temporary Camp	E
325	CA-KER-1831	Prehistoric	Temporary Camp	U
326	CA-KER-1183	Prehistoric	Temporary Camp	U
327	CA-KER-1184	Prehistoric	Temporary Camp	U
328	CA-KER-1185	Prehistoric	Lithic Deposit	U
329	CA-KER-1186/H	Historic	Homesite/Homestead	U
330	CA-KER-1187	Prehistoric	Temporary Camp	U
331	CA-KER-1832	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
332	CA-KER-1188	Prehistoric	Lithic Deposit	U
333	CA-KER-1189	Prehistoric	Temporary Camp	E
334	CA-KER-1190	Prehistoric	Milling Station – Bedrock Mortar	U
335	CA-KER-1191H	Historic	Historic Period Refuse Deposit	I
336	CA-KER-1192H	Historic	Historic Period Refuse Deposit	U
337	CA-KER-1258	Prehistoric	Lithic Deposit	U
338	CA-KER-1439	Prehistoric	Temporary Camp	I
339	CA-KER-1440	Prehistoric	Temporary Camp	I
340	CA-KER-1441	Prehistoric	Temporary Camp	I
341	CA-KER-1481	Prehistoric	Prehistoric Pock Alignments/Features – Possible Hunting Blind	U
342	CA-KER-1482	Prehistoric	Milling Station – Bedrock Mortar	U
343	CA-KER-1833	Prehistoric	Lithic Deposit	U
344	CA-KER-3531H	Historic	Historic Period Refuse Deposit	I
345	CA-KER-1834	Prehistoric	Temporary Camp	U
346	CA-KER-1708	Prehistoric	Temporary Camp	U
347	CA-KER-1751	Prehistoric	Milling Station – Bedrock Mortar	U
348	CA-KER-1752/H	Prehistoric	Temporary Camp	I
349	CA-KER-1753	Prehistoric	Temporary Camp	I
350	CA-KER-1754	Prehistoric	Temporary Camp	U
351	CA-KER-1755	Prehistoric	Temporary Camp	E
352	CA-KER-1835	Prehistoric	Temporary Camp	U
353	CA-KER-1756	Prehistoric	Lithic Deposit	U
354	CA-KER-1757	Prehistoric	Lithic Deposit	U
355	CA-KER-1758	Prehistoric	Temporary Camp	I
356	CA-KER-1759	Prehistoric	Lithic Deposit	U
357	CA-KER-1760	Prehistoric	Temporary Camp	U
358	CA-KER-1761	Prehistoric	Temporary Camp	U
359	CA-KER-1762	Prehistoric	Lithic Deposit	U
360	CA-KER-1763	Prehistoric	Temporary Camp	E

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
361	CA-KER-1764/H	Prehistoric	Temporary Camp	E
362	CA-KER-1765	Prehistoric	Temporary Camp	I
363	CA-KER-1836H	Historic	Historic Period Refuse Deposit	U
364	CA-KER-1766	Prehistoric	Temporary Camp	U
365	CA-KER-1837	Prehistoric	Temporary Camp	I
366	CA-KER-1767	Prehistoric	Temporary Camp	U
367	CA-KER-1838	Prehistoric	Temporary Camp	U
368	CA-KER-1839	Prehistoric	Temporary Camp	I
369	CA-KER-1840/H	Prehistoric	Temporary Camp	U
370	CA-KER-1841H	Historic	Homesite/Homestead	I
371	CA-KER-2083	Prehistoric	Temporary Camp	I
372	CA-KER-1843H	Historic	Homesite/Homestead	E
373	CA-KER-1768	Prehistoric	Lithic Deposit	U
374	CA-KER-1769	Prehistoric	Lithic Deposit	U
375	CA-KER-1770	Prehistoric	Lithic Deposit	U
376	CA-KER-1874	Prehistoric	Temporary Camp	I
377	CA-KER-1875	Prehistoric	Temporary Camp	I
378	CA-KER-1876	Prehistoric	Temporary Camp	U
379	CA-KER-1877H	Historic	Mine Related	U
380	CA-KER-1878	Prehistoric	Lithic Deposit	U
381	CA-KER-1879	Prehistoric	Temporary Camp	U
382	CA-KER-1880	Prehistoric	Rock Shelter, Occupation	E
383	CA-KER-1881	Prehistoric	Temporary Camp	U
384	CA-KER-1882H	Historic	Historic Period Rock Feature	U
385	CA-KER-1771	Prehistoric	Lithic Deposit	P
386	CA-KER-1883	Prehistoric	Temporary Camp	U
387	CA-KER-1884	Prehistoric	Lithic Deposit	U
388	CA-KER-1885	Prehistoric	Milling Station – Bedrock Mortar	U
389	CA-KER-1886	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
390	CA-KER-1887	Prehistoric	Hearth/Roasting Pit	U
391	CA-KER-1888H	Historic	Historic Period Refuse Deposit	I
392	CA-LAN-1184/H	Prehistoric	Temporary Camp	I
393	CA-LAN-1185	Prehistoric	Temporary Camp	I
394	CA-LAN-1195	Prehistoric	Temporary Camp	I
395	CA-KER-1772H	Historic	Historic Period Refuse Deposit	U
396	CA-KER-1773	Prehistoric	Temporary Camp	U
397	CA-LAN-1186	Prehistoric	Temporary Camp	U
398	CA-LAN-1187	Prehistoric	Temporary Camp	U
399	CA-LAN-1188	Prehistoric	Lithic Deposit	U
400	CA-LAN-1189/H	Prehistoric	Temporary Camp	E
401	CA-LAN-1190/H	Prehistoric	Temporary Camp	I
402	CA-LAN-1191	Prehistoric	Temporary Camp	U
403	CA-LAN-1192	Prehistoric	Temporary Camp	U
404	CA-LAN-1193	Prehistoric	Lithic Deposit	I
405	CA-LAN-1194	Prehistoric	Temporary Camp	U
406	CA-LAN-1196	Prehistoric	Temporary Camp	I
407	CA-LAN-1197	Prehistoric	Temporary Camp	U
408	CA-LAN-1198	Prehistoric	Lithic Deposit	I
409	CA-LAN-1199	Prehistoric	Temporary Camp	U
410	CA-KER-1774	Prehistoric	Lithic Deposit	U
411	CA-KER-1889	Prehistoric	Temporary Camp	E
412	CA-LAN-1200	Prehistoric	Temporary Camp	U
413	CA-LAN-1201	Prehistoric	Temporary Camp	U
414	CA-LAN-1202	Prehistoric	Temporary Camp	U
415	CA-LAN-1203	Prehistoric	Temporary Camp	I
416	CA-LAN-1204	Prehistoric	Hearth/Roasting Pit	I
417	CA-KER-1890	Prehistoric	Milling Station – Bedrock Milling Slick	I
418	CA-KER-1891	Prehistoric	Milling Station – Bedrock Milling Slick	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
419	CA-LAN-1208H	Prehistoric	Temporary Camp	E
420	CA-KER-1775	Prehistoric	Temporary Camp	U
421	CA-KER-1920	Prehistoric	Temporary Camp	U
422	CA-KER-1776	Prehistoric	Lithic Deposit	U
423	CA-KER-1922/H	Prehistoric	Base Camp/Village – Buckhorn Springs	E
424	CA-KER-1923	Prehistoric	Lithic Deposit	U
425	CA-KER-1924	Prehistoric	Temporary Camp	U
426	CA-KER-1777	Prehistoric	Temporary Camp	U
427	CA-KER-1778	Prehistoric	Lithic Deposit	U
428	CA-KER-1779	Prehistoric	Lithic Deposit	U
429	CA-KER-1780	Prehistoric	Lithic Deposit	U
430	CA-KER-1781H	Historic	Historic Period Refuse Deposit	U
431	CA-KER-1782	Prehistoric	Lithic Deposit	U
432	CA-KER-1783	Prehistoric	Temporary Camp	U
433	CA-KER-1809H	Historic	Historic Period Refuse Deposit	U
434	CA-KER-1810/H	Prehistoric	Temporary Camp	E
435	CA-KER-1811	Prehistoric	Lithic Deposit	U
436	CA-KER-1812H	Historic	Recreation Site – Duck Club	U
437	CA-KER-1813	Prehistoric	Lithic Deposit	E
438	CA-KER-1814/H	Prehistoric	Temporary Camp	I
439	CA-KER-1817	Prehistoric	Temporary Camp	U
441	CA-SBR-4051	Prehistoric	Lithic Deposit	U
442	CA-SBR-4052	Prehistoric	Lithic Deposit	I
443	CA-SBR-4056H	Historic	Mine Related	U
446	CA-SBR-4388	Prehistoric	Temporary Camp	U
447	CA-SBR-4389	Prehistoric	Lithic Deposit	U
448	CA-SBR-4390	Prehistoric	Temporary Camp	U
449	CA-SBR-4391	Prehistoric	Temporary Camp	I
450	CA-SBR-4392	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
451	CA-SBR-5083	Prehistoric	Temporary Camp	I
452	CA-SBR-5084	Prehistoric	Temporary Camp	I
453	CA-SBR-5085	Prehistoric	Lithic Deposit	U
454	CA-SBR-5086	Prehistoric	Temporary Camp	U
455	CA-SBR-5087	Prehistoric	Temporary Camp	U
456	CA-SBR-5088	Prehistoric	Lithic Deposit	U
457	CA-SBR-5091	Prehistoric	Temporary Camp	U
458	CA-SBR-5092	Prehistoric	Hearth/Roasting Pit	I
459	CA-SBR-5093	Prehistoric	Lithic Deposit	U
460	CA-SBR-5095	Prehistoric	Lithic Deposit	I
461	CA-SBR-5130	Prehistoric	Temporary Camp	I
462	CA-SBR-5131	Prehistoric	Lithic Deposit	U
463	CA-SBR-5132H	Historic	Agricultural Feature	U
464	CA-SBR-5133	Prehistoric	Lithic Deposit	I
465	CA-SBR-5134	Prehistoric	Lithic Deposit	U
466	CA-SBR-5135	Prehistoric	Temporary Camp	U
467	CA-SBR-5136	Prehistoric	Lithic Deposit	U
468	CA-SBR-5137	Prehistoric	Lithic Deposit	U
469	CA-SBR-5138	Prehistoric	Lithic Deposit	I
470	CA-SBR-5139	Prehistoric	Lithic Deposit	U
471	CA-SBR-5140	Prehistoric	Lithic Deposit	U
472	CA-SBR-5141	Prehistoric	Lithic Deposit	U
473	CA-SBR-5142	Prehistoric	Temporary Camp	U
474	CA-SBR-5143	Prehistoric	Lithic Deposit	U
475	CA-SBR-5144	Prehistoric	Lithic Deposit	I
476	CA-SBR-5145	Prehistoric	Lithic Deposit	U
477	CA-SBR-5146	Prehistoric	Lithic Deposit	U
478	CA-SBR-5147	Prehistoric	Temporary Camp	I
479	CA-SBR-5148	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
480	CA-SBR-5149	Prehistoric	Lithic Deposit	U
481	CA-SBR-5150	Prehistoric	Lithic Deposit	U
482	CA-SBR-5151	Prehistoric	Lithic Deposit	U
483	CA-SBR-5152	Prehistoric	Lithic Deposit	U
484	CA-SBR-5153	Prehistoric	Temporary Camp	I
485	CA-SBR-5154	Prehistoric	Lithic Deposit	U
486	CA-SBR-5155	Prehistoric	Lithic Deposit	U
487	CA-SBR-5156	Prehistoric	Lithic Deposit	U
488	CA-SBR-5157	Prehistoric	Lithic Deposit	U
489	CA-SBR-5158	Prehistoric	Lithic Deposit	U
490	CA-SBR-5159	Prehistoric	Lithic Deposit	U
491	CA-SBR-5160	Prehistoric	Lithic Deposit	U
492	CA-SBR-5161	Prehistoric	Lithic Deposit	U
493	CA-SBR-5162	Prehistoric	Lithic Deposit	I
494	CA-SBR-5163	Prehistoric	Lithic Deposit	U
495	CA-SBR-5164	Prehistoric	Lithic Deposit	U
496	CA-SBR-5165	Prehistoric	Lithic Deposit	U
497	CA-SBR-5166	Prehistoric	Lithic Deposit	U
498	CA-SBR-5167	Prehistoric	Lithic Deposit	I
499	CA-SBR-5168/H	Historic	Homesite/Homestead	I
500	CA-SBR-5169	Prehistoric	Lithic Deposit	U
501	CA-SBR-5170	Prehistoric	Lithic Deposit	U
502	CA-SBR-5171	Prehistoric	Temporary Camp	I
503	CA-SBR-5172	Prehistoric	Lithic Deposit	U
504	CA-SBR-5173	Prehistoric	Lithic Deposit	U
505	CA-SBR-5174	Prehistoric	Lithic Deposit	U
506	CA-SBR-5175	Prehistoric	Lithic Deposit	U
507	CA-SBR-5176	Prehistoric	Lithic Deposit	I
508	CA-SBR-5177	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
509	CA-SBR-5178	Prehistoric	Lithic Deposit	U
510	CA-SBR-5179	Prehistoric	Lithic Deposit	I
511	CA-SBR-5180	Prehistoric	Lithic Deposit	U
512	CA-SBR-5321/H	Prehistoric	Lithic Deposit	E
513	CA-KER-1956	Prehistoric	Milling Station – Bedrock Milling Slick	U
514	CA-KER-1955	Prehistoric	Milling Station – Bedrock Mortar	U
515	CA-KER-1957	Prehistoric	Temporary Camp	I
516	CA-KER-1921	Prehistoric	Temporary Camp	U
517	CA-KER-1958	Prehistoric	Milling Station – Bedrock Mortar	U
518	CA-KER-1959	Prehistoric	Milling Station – Bedrock Mortar	U
519	CA-KER-1248	Prehistoric	Temporary Camp	I
520	CA-KER-322	Prehistoric	Lithic Deposit	U
521	CA-KER-1960	Prehistoric	Temporary Camp	U
526	CA-KER-1961	Prehistoric	Lithic Deposit	I
527	CA-LAN-1227	Prehistoric	Temporary Camp	I
528	CA-KER-1962	Prehistoric	Temporary Camp	U
529	CA-LAN-1228	Prehistoric	Temporary Camp	I
530	CA-LAN-1229	Prehistoric	Lithic Deposit	I
531	CA-KER-2441H	Historic	Historic Period Refuse Deposit	U
532	CA-KER-1973	Prehistoric	Temporary Camp	U
533	CA-KER-1974	Prehistoric	Temporary Camp	U
534	CA-KER-1975	Prehistoric	Temporary Camp	U
535	CA-KER-1976/H	Prehistoric	Temporary Camp	U
536	CA-KER-1977	Prehistoric	Temporary Camp	U
537	CA-LAN-1238	Prehistoric	Temporary Camp	U
538	CA-LAN-1230	Prehistoric	Temporary Camp	U
539	CA-LAN-1231	Prehistoric	Temporary Camp	U
540	CA-LAN-1232/H	Historic	Agricultural Feature	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
541	CA-LAN-1233/H	Historic	Homesite/Homestead	U
542	CA-LAN-1234	Prehistoric	Lithic Deposit	U
544	CA-KER-6182H	Historic	Historic Period Refuse Deposit	U
545	CA-KER-6085H	Historic	Historic Period Refuse Deposit	U
547	CA-KER-6086H	Historic	Historic Period Refuse Deposit	U
548	CA-KER-6181H	Historic	Historic Period Refuse Deposit	U
551	CA-LAN-1407H	Historic	Homesite/Homestead	U
552	CA-LAN-1237	Prehistoric	Temporary Camp	I
553	CA-LAN-1241	Prehistoric	Lithic Deposit	U
554	CA-LAN-1242	Prehistoric	Lithic Deposit	U
555	CA-KER-2733H	Historic	Homesite/Homestead	U
556	CA-KER-2626H	Historic	Homesite/Homestead	U
557	CA-KER-2005	Prehistoric	Milling Station – Bedrock Mortar	U
558	CA-KER-2006	Prehistoric	Milling Station – Bedrock Milling Slick	U
559	CA-KER-2007	Prehistoric	Temporary Camp	U
560	CA-KER-2008	Prehistoric	Temporary Camp	U
561	CA-KER-6087H	Historic	Historic Period Refuse Deposit	U
562	CA-KER-2009/H	Prehistoric	Temporary Camp	P
563	CA-KER-2669H	Historic	Homesite/Homestead	I
564	CA-KER-2295/H	Historic	Homesite/Homestead	U
565	CA-KER-2014	Prehistoric	Milling Station – Bedrock Mortar	U
566	CA-KER-2013	Prehistoric	Lithic Deposit	U
567	CA-KER-2015/H	Prehistoric	Lithic Deposit	U
568	CA-KER-2016	Prehistoric	Temporary Camp	E
569	CA-KER-2010	Prehistoric	Lithic Deposit	U
570	CA-KER-2011	Prehistoric	Lithic Deposit	U
571	CA-KER-2012	Prehistoric	Hearth/Roasting Pit	U
572	CA-LAN-1239	Prehistoric	Temporary Camp	U
573	CA-LAN-1243/H	Prehistoric	Temporary Camp	U
574	CA-KER-2017	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
575	CA-KER-2019	Prehistoric	Hearth/Roasting Pit	U
576	CA-KER-2021	Prehistoric	Lithic Deposit	U
577	CA-KER-2022	Prehistoric	Lithic Deposit	U
578	CA-KER-2023	Prehistoric	Lithic Deposit	U
579	CA-KER-2024H	Historic	Homesite/Homestead	U
580	CA-KER-2025	Prehistoric	Temporary Camp	U
581	CA-KER-2026	Prehistoric	Temporary Camp	U
582	CA-KER-2027	Prehistoric	Lithic Deposit	U
583	CA-KER-2670H	Historic	Homesite/Homestead	U
584	CA-SBR-5455	Prehistoric	Temporary Camp	U
585	CA-SBR-5456	Prehistoric	Lithic Deposit	U
586	CA-SBR-5457	Prehistoric	Temporary Camp	I
587	CA-SBR-5458	Prehistoric	Lithic Deposit	U
588	CA-SBR-5454	Prehistoric	Quarry/Lithic Source – Exploited Float Source	U
589	CA-KER-2018	Prehistoric	Temporary Camp	U
590	CA-KER-2028	Prehistoric	Temporary Camp	I
591	CA-KER-2029	Prehistoric	Lithic Deposit	U
592	CA-KER-2030H	Historic	Mine Related	U
594	CA-LAN-1240/H	Prehistoric	Temporary Camp	I
595	CA-KER-2032/H	Historic	Mine, Claim	U
596	CA-KER-2038	Prehistoric	Temporary Camp	E
597	CA-KER-2039	Prehistoric	Hearth/Roasting Pit	I
598	CA-KER-2053/H	Prehistoric	Temporary Camp	E
599	CA-KER-2054/H	Historic	Mine Related	U
600	CA-KER-2055	Prehistoric	Temporary Camp	U
601	CA-KER-XXXXH	Historic	Homesite/Homestead	U
602	CA-LAN-1294	Prehistoric	Lithic Deposit	I
603	CA-KER-2057	Prehistoric	Temporary Camp	U
604	CA-KER-2058	Prehistoric	Lithic Deposit	U
605	CA-KER-2098	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
606	CA-KER-2097	Prehistoric	Lithic Deposit	I
607	CA-KER-2095	Prehistoric	Temporary Camp	U
608	CA-KER-2092	Prehistoric	Temporary Camp	I
609	CA-KER-2093	Prehistoric	Temporary Camp	U
610	CA-KER-2094	Prehistoric	Temporary Camp	U
611	CA-KER-2091	Prehistoric	Temporary Camp	U
613	CA-KER-2671H	Historic	Homesite/Homestead	U
614	CA-KER-2059	Prehistoric	Temporary Camp	U
615	CA-KER-2056	Prehistoric	Temporary Camp	U
616	CA-LAN-1307	Prehistoric	Temporary Camp	I
617	CA-KER-2060/H	Prehistoric	Temporary Camp	U
618	CA-KER-2081	Prehistoric	Lithic Deposit	U
619	CA-KER-2082	Prehistoric	Milling Station – Bedrock Mortar	U
620	CA-LAN-1291	Prehistoric	Temporary Camp	I
621	CA-LAN-1292	Prehistoric	Temporary Camp	I
623	CA-KER-2121/H	Prehistoric	Temporary Camp	I
624	CA-LAN-1308	Prehistoric	Temporary Camp	I
625	CA-KER-2084	Prehistoric	Temporary Camp	I
626	CA-KER-2085	Prehistoric	Temporary Camp	I
627	CA-LAN-1293	Prehistoric	Temporary Camp	I
628	CA-KER-2086/H	Historic	Historic Period Refuse Deposit	U
629	CA-KER-2122	Prehistoric	Temporary Camp	U
630	CA-LAN-1283	Prehistoric	Temporary Camp	E
631	CA-KER-2184	Prehistoric	Lithic Deposit	U
632	CA-KER-2125/H	Prehistoric	Temporary Camp	E
633	CA-LAN-1295	Prehistoric	Temporary Camp	I
634	CA-SBR-5562/H	Historic	Mine Related	U
635	CA-LAN-2029H	Historic	Homesite/Homestead	U
636	CA-LAN-1284	Prehistoric	Temporary Camp	U
637	CA-KER-2123	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
638	CA-KER-2096	Prehistoric	Temporary Camp	U
639	CA-LAN-1282	Prehistoric	Temporary Camp	U
641	CA-KER-2710	Prehistoric	Temporary Camp	I
643	CA-KER-6487H	Historic	Homesite/Homestead	U
643	CA-LAN-1583H	Historic	Homesite/Homestead	U
644	CA-LAN-2970H	Historic	Historic Period Refuse Deposit	U
645	CA-LAN-3052H	Historic	Historic Period Refuse Deposit	U
648	CA-KER-4345H	Historic	Mine, Developed Shaft	U
650	CA-KER-2126	Prehistoric	Milling Station – Bedrock Milling Slick	U
651	CA-KER-2127	Prehistoric	Temporary Camp	U
652	CA-LAN-1705/H	Historic	Homesite/Homestead	U
653	CA-LAN-1286/H	Prehistoric	Temporary Camp	U
654	CA-LAN-1287	Prehistoric	Temporary Camp	U
655	CA-LAN-1288	Prehistoric	Temporary Camp	U
656	CA-LAN-1290	Prehistoric	Temporary Camp	I
657	CA-LAN-2974H	Historic	Historic Period Refuse Deposit	U
658	CA-LAN-1309	Prehistoric	Temporary Camp	U
659	CA-LAN-3039H	Historic	Historic Period Refuse Deposit	U
660	CA-LAN-2975H	Historic	Historic Period Refuse Deposit	U
662	CA-LAN-2976H	Historic	Historic Period Refuse Deposit	U
663	CA-LAN-2977H	Historic	Historic Period Refuse Deposit	U
665	CA-LAN-1803H	Historic	Agricultural Feature	U
666	CA-KER-2129	Prehistoric	Base Camp/Village	E
667	CA-LAN-1804H	Historic	Homesite/Homestead	U
668	CA-LAN-2982H	Historic	Historic Period Refuse Deposit	U
669	CA-KER-6088H	Historic	Historic Period Refuse Deposit	U
670	CA-KER-6185H	Historic	Historic Period Refuse Deposit	U
672	CA-KER-6089H	Historic	Historic Period Refuse Deposit	U
673	CA-KER-6186H	Historic	Historic Period Refuse Deposit	U
674	CA-KER-6090H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
675	CA-KER-6091H	Historic	Historic Period Refuse Deposit	U
676	CA-KER-6178H	Military	Aircraft/Aerospace Vehicle Crash Site	U
677	CA-KER-6179H	Military	Aircraft/Aerospace Vehicle Crash Site	U
680	CA-KER-6488H	Historic	Historic Period Refuse Deposit	U
682	CA-KER-6489H	Historic	Historic Period Refuse Deposit	U
683	CA-KER-6104H	Historic	Ranching Feature	U
684	CA-KER-2542H	Historic	Homesite/Homestead	U
685	CA-KER-2542H	Historic	Homesite/Homestead	U
686	CA-KER-2542H	Historic	Homesite/Homestead	U
688	CA-KER-2131	Prehistoric	Temporary Camp	E
689	CA-KER-2132	Prehistoric	Hearth/Roasting Pit	I
690	CA-KER-3117H	Historic	Historic Period Refuse Deposit	I
691	CA-KER-2133	Prehistoric	Hearth/Roasting Pit	I
692	CA-KER-2134	Prehistoric	Hearth/Roasting Pit	I
693	CA-KER-2135	Prehistoric	Hearth/Roasting Pit	I
694	CA-KER-2136	Prehistoric	Hearth/Roasting Pit	I
695	CA-KER-2137	Prehistoric	Hearth/Roasting Pit	I
696	CA-KER-2138	Prehistoric	Hearth/Roasting Pit	I
697	CA-KER-2139H	Historic	Mine, Claim	U
698	CA-KER-2140	Prehistoric	Milling Station – Portable Metate or Mortar	I
699	CA-KER-6116H	Historic	Historic Period Refuse Deposit	I
700	CA-KER-2147	Prehistoric	Hearth/Roasting Pit	U
702	CA-LAN-1542H	Historic	Homesite/Homestead	U
703	CA-LAN-1502H	Historic	Homesite/Homestead	U
692	CA-KER-2134	Prehistoric	Hearth/Roasting Pit	I
704	CA-LAN-1566H	Historic	Homesite/Homestead	U
705	CA-LAN-3130	Historic	Homesite/Homestead	I
706	CA-LAN-2180H	Historic	Homesite/Homestead	U
707	CA-KER-2199H	Historic	Homesite/Homestead	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
708	CA-KER-2672H	Historic	Homesite/Homestead	U
710	CA-LAN-2531H	Historic	Homesite/Homestead	U
711	CA-LAN-1565H	Historic	Homesite/Homestead	U
712	CA-LAN-2260H	Historic	Homesite/Homestead	U
713	CA-LAN-1465H	Historic	Homesite/Homestead	U
714	CA-LAN-1501H	Historic	Mine, Drilling Site – Oil	U
715	CA-LAN-1555H	Historic	Homesite/Homestead	U
716	CA-LAN-1550H	Historic	Homesite/Homestead	U
717	CA-LAN-1404H	Historic	Agricultural Feature	U
718	CA-LAN-3060H	Historic	Historic Period Refuse Deposit	U
719	CA-LAN-1408H	Historic	Homesite/Homestead	E
720	CA-LAN-1560H	Historic	Agricultural Feature	U
721	CA-LAN-1486H	Historic	Homesite/Homestead	U
722	CA-LAN-1487H	Historic	Homesite/Homestead	U
723	CA-LAN-1318/H	Historic	Historic Period Refuse Deposit	U
724	CA-LAN-1545H	Historic	Homesite/Homestead	U
725	CA-LAN-1489H	Historic	Homesite/Homestead	U
726	CA-LAN-1929H	Historic	Homesite/Homestead	U
727	CA-LAN-1930H	Historic	Homesite/Homestead	U
728	CA-LAN-1543H	Historic	Homesite/Homestead	U
729	CA-LAN-1562H	Historic	Homesite/Homestead	U
730	CA-LAN-1560H	Historic	Homesite/Homestead	U
731	CA-LAN-1559H	Historic	Homesite/Homestead	U
732	CA-LAN-1561H	Historic	Homesite/Homestead	U
733	CA-LAN-1440H	Historic	Homesite/Homestead	U
734	CA-LAN-1484H	Historic	Homesite/Homestead	U
736	CA-LAN-1969H	Historic	Homesite/Homestead	U
737	CA-LAN-1481H	Historic	Homesite/Homestead	U
739	CA-LAN-1510H	Historic	Homesite/Homestead	U
740	CA-KER-2149	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
741	CA-LAN-1726H	Historic	Homesite/Homestead	U
742	CA-LAN-1727/H	Historic	Homesite/Homestead	U
743	CA-LAN-1475H	Historic	Homesite/Homestead	U
744	CA-LAN-1310/H	Historic	Homesite/Homestead	E
745	CA-LAN-1474H	Historic	Homesite/Homestead	U
746	CA-KER-5016H	Historic	Homesite/Homestead	U
747	CA-LAN-1476H	Historic	Homesite/Homestead	U
748	CA-LAN-1285/H	Historic	Homesite/Homestead	U
749	CA-LAN-2269H	Historic	Agricultural Feature, Well	U
750	CA-LAN-1729H	Historic	Homesite/Homestead	U
751	CA-LAN-1473H	Historic	Homesite/Homestead	I
752	CA-LAN-2758H	Historic	Homesite/Homestead	U
753	CA-LAN-1924H	Historic	Homesite/Homestead	U
754	CA-LAN-1473H	Historic	Agricultural Feature	I
756	CA-KER-2130/H	Historic	Agricultural Feature	U
757	CA-KER-5515H	Historic	Homesite/Homestead	U
758	CA-KER-2128/H	Historic	Homesite/Homestead	U
759	CA-LAN-1512H	Historic	Agricultural Feature	U
760	CA-LAN-1557H	Historic	Homesite/Homestead	E
762	CA-LAN-1807H	Historic	Agricultural Feature	U
764	CA-KER-2309H	Historic	Homesite/Homestead	I
765	CA-LAN-1725H	Historic	Homesite/Homestead	U
766	CA-LAN-1492H	Historic	Homesite/Homestead	I
767	CA-LAN-2971H	Historic	Agricultural Feature	U
768	CA-LAN-1706H	Historic	Homesite/Homestead	U
770	CA-LAN-1808H	Historic	Homesite/Homestead	U
771	CA-LAN-3051H	Historic	Mining Feature	U
772	CA-LAN-1809H	Historic	Homesite/Homestead	U
773	CA-LAN-1810H	Historic	Homesite/Homestead	U
774	CA-LAN-1811H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
775	CA-LAN-1812H	Historic	Homesite/Homestead	U
776	CA-LAN-1812H	Historic	Mine Related	U
777	CA-LAN-1813H	Historic	Homesite/Homestead	U
778	CA-LAN-1495H	Historic	Homesite/Homestead	U
779	CA-LAN-1814H	Historic	Mine Related	U
780	CA-LAN-1815H	Historic	Homesite/Homestead	U
781	CA-LAN-1816H	Historic	Homesite/Homestead	U
782	CA-LAN-1494H	Historic	Homesite/Homestead	U
783	CA-LAN-1493H	Historic	Homesite/Homestead	U
784	CA-LAN-1568H	Historic	Homesite/Homestead	U
786	CA-LAN-2923H	Historic	Homesite/Homestead	U
787	CA-LAN-1496H	Historic	Homesite/Homestead	U
788	CA-LAN-1799H	Historic	Homesite/Homestead	U
789	CA-KER-3981H	Historic	Homesite/Homestead	U
792	CA-KER-2341H	Military	Inactive Building/Facility – Foundation/Ruins, WWII Firing Range	U
793	CA-KER-4624H	Historic	Agricultural Feature, Holding Tank	U
794	CA-KER-3844H	Historic	Homesite/Homestead	U
796	CA-KER-4204H	Historic	Homesite/Homestead	U
797	CA-KER-6120H	Historic	Homesite/Homestead	U
798	CA-LAN-1488H	Historic	Homesite/Homestead	U
801	CA-KER-6121H	Historic	Agricultural Feature, Machinery	U
802	CA-SBR-7431H	Historic	Roads and Trails-Unpaved	I
803	CA-KER-5656H	Historic	Homesite/Homestead	U
804	CA-KER-4205H	Historic	Agricultural Feature, Windmill	U
805	CA-KER-2388H	Historic	Homesite/Homestead	U
807	CA-KER-2446H	Historic	Mine Related	U
808	CA-KER-6092H	Historic	Railroad Stop	U
810		Military	Rogers Lake National Historic Landmark	NL
811	CA-KER-3350H	Military	Active Building/Facility – North Base Complex	U
811	CA-KER-3350H	Military	Inactive Building/Facility – North Base Complex	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
813	CA-KER-6172H	Historic	Homesite/Homestead	U
814	CA-KER-4551H	Historic	Homesite/Homestead	U
815	CA-KER-3845H	Historic	Homesite/Homestead	U
817	CA-KER-2342H	Historic	Homesite/Homestead	I
818	CA-KER-6093H	Historic	Homesite/Homestead	U
820	CA-KER-2343H	Historic	Homesite/Homestead	U
822	CA-KER-2374H	Historic	Homesite/Homestead	I
823	CA-KER-2301H	Historic	Homesite/Homestead	I
826		Military	Active Building/Facility – P Area Housing Complex	I
828	CA-KER-4287	Prehistoric	Temporary Camp	U
830	CA-KER-2391H	Military	Inactive Building/Facility – Sled Track	E
833	CA-KER-4288	Prehistoric	Temporary Camp	I
835	CA-LAN-1316	Prehistoric	Lithic Deposit	E
837	CA-KER-2284H	Historic	Homesite/Homestead	U
838	CA-KER-2289H	Historic	Homesite/Homestead	U
840	CA-KER-2294H	Historic	Homesite/Homestead	U
841	CA-KER-5650H	Historic	Homesite/Homestead	U
842	CA-KER-2293H	Historic	Homesite/Homestead	U
843	CA-KER-3847H	Historic	Homesite/Homestead	U
844	CA-KER-2292H	Historic	Homesite/Homestead	U
845	CA-KER-2290H	Historic	Homesite/Homestead	U
846	CA-LAN-2030H	Historic	Homesite/Homestead	U
847	CA-KER-2310H	Historic	Homesite/Homestead	U
848	CA-KER-4931H	Historic	Historic Period Refuse Deposit	U
851	CA-LAN-1466H	Historic	Homesite/Homestead	U
853	CA-KER-2150	Prehistoric	Hearth/Roasting Pit	U
854	CA-KER-2151	Prehistoric	Hearth/Roasting Pit	U
855	CA-KER-2152	Prehistoric	Hearth/Roasting Pit	U
856	CA-KER-2153	Prehistoric	Hearth/Roasting Pit	I
857	CA-KER-2154	Prehistoric	Quarry/Lithic Source	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
858	CA-KER-4814H	Historic	Historic Period Refuse Deposit	I
860	CA-LAN-1317	Prehistoric	Temporary Camp	U
863	CA-LAN-1319/H	Prehistoric	Temporary Camp	I
864	CA-LAN-1320	Prehistoric	Temporary Camp	U
865	CA-LAN-1321/H	Prehistoric	Temporary Camp	U
866	CA-LAN-XXXXH	Historic	Agricultural Feature, Well	U
867	CA-LAN-1404H	Historic	Homesite/Homestead	U
868	CA-LAN-1817H	Historic	Homesite/Homestead	U
869	CA-KER-2156	Prehistoric	Lithic Deposit	I
870	CA-LAN-1329	Prehistoric	Temporary Camp	U
871	CA-KER-2163	Prehistoric	Hearth/Roasting Pit	I
872	CA-KER-2164	Prehistoric	Cremation	U
873	CA-KER-2165	Prehistoric	Hearth/Roasting Pit	I
874	CA-KER-3950H	Historic	Historic Period Refuse Deposit	I
875	CA-KER-2166	Prehistoric	Lithic Deposit	U
876	CA-KER-2200	Prehistoric	Pictograph – Ettinger Cave	E
878	CA-KER-3944H	Historic	Mine, Open Pit	U
879	CA-KER-2201	Prehistoric	Temporary Camp	U
880	CA-KER-2202	Prehistoric	Milling Station – Bedrock Mortar	U
881		Historic	Historic Period Refuse Deposit	I
882	CA-KER-2558/H	Historic	Historic Period Refuse Deposit	U
888	CA-LAN-1409	Prehistoric	Temporary Camp	U
889	CA-KER-2440	Prehistoric	Milling Station – Bedrock Milling Slick	I
890	CA-KER-2242/H	Prehistoric	Temporary Camp	I
892	CA-LAN-2267H	Historic	Historic Period Refuse Deposit	I
893	CA-KER-2233	Prehistoric	Milling Station – Bedrock Milling Slick	U
894	CA-KER-2234	Prehistoric	Temporary Camp	U
895	CA-KER-2448	Prehistoric	Temporary Camp	I
896	CA-KER-2344H	Historic	Homesite/Homestead	U
897	CA-KER-2345H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
898	CA-KER-2235	Prehistoric	Hearth/Roasting Pit	U
899	CA-KER-2236	Prehistoric	Temporary Camp	U
900	CA-KER-2237	Prehistoric	Temporary Camp	U
901	CA-KER-2370	Prehistoric	Temporary Camp	U
904	CA-KER-2238	Prehistoric	Hearth/Roasting Pit	U
905	CA-KER-2239H	Historic	Homesite/Homestead	U
906	CA-KER-2240H	Historic	Historic Period Refuse Deposit	U
907	CA-KER-2241	Prehistoric	Lithic Deposit	U
908	CA-SBR-6150H	Historic	Historic Period Refuse Deposit	U
909	CA-SBR-6151	Prehistoric	Temporary Camp	I
910	CA-KER-2298	Prehistoric	Milling Station – Bedrock Milling Slick	U
912	CA-KER-2288	Prehistoric	Lithic Deposit	U
914	CA-LAN-1472	Prehistoric	Temporary Camp	I
918	CA-KER-2305	Prehistoric	Lithic Deposit	U
919	CA-KER-5316H	Historic	Historic Period Rock Feature	U
920	CA-KER-2346	Prehistoric	Temporary Camp	I
921	CA-KER-2347	Prehistoric	Temporary Camp	I
923	CA-KER-2348H	Historic	Agricultural Feature	U
924	CA-KER-2349H	Historic	Homesite/Homestead	I
925	CA-KER-6095H	Historic	Historic Period Refuse Deposit	U
926	CA-KER-6096H	Historic	Historic Period Refuse Deposit	U
929	CA-KER-2350	Prehistoric	Milling Station – Bedrock Milling Slick	U
931	CA-KER-2351	Prehistoric	Temporary Camp	I
932	CA-KER-2344H	Historic	Historic Period Refuse Deposit	U
933	CA-KER-4470H	Historic	Historic Period Refuse Deposit	U
934	CA-KER-2352H	Historic	Historic Period Refuse Deposit	U
935	CA-KER-2353H	Historic	Historic Period Refuse Deposit	I
936	CA-KER-6491H	Historic	Historic Period Refuse Deposit	I
937	CA-KER-2354	Prehistoric	Temporary Camp	U
938	CA-KER-2355H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
939	CA-KER-2356H	Historic	Historic Period Rock Feature – Cross Shape	U
940	CA-KER-695H	Historic	Homesite/Homestead	E
941	CA-KER-2375H	Historic	Agricultural Feature	U
942	CA-KER-2392H	Historic	Homesite/Homestead	U
943	CA-KER-2379	Prehistoric	Temporary Camp	U
944	CA-KER-2376/H	Historic	Historic Period Refuse Deposit	U
945	CA-KER-2378	Prehistoric	Temporary Camp	E
946	CA-LAN-1812H	Historic	Mine Related	U
947	CA-KER-2299	Prehistoric	Lithic Deposit	U
948	CA-KER-2312	Prehistoric	Milling Station	U
949	CA-KER-2291	Prehistoric	Hearth/Roasting Pit	U
951	CA-KER-3945H	Historic	Mine Related	U
958	CA-KER-2300H	Historic	Railroad Stop	U
959	CA-KER-2178H	Historic	Homesite/Homestead	U
960	CA-KER-2311H	Historic	Homesite/Homestead	U
961	CA-KER-2604H	Historic	Homesite/Homestead	U
962	CA-KER-1480H	Historic	Homesite/Homestead	I
963	CA-KER-2243H	Historic	Homesite/Homestead	I
965	CA-LAN-XXXX	Historic	Agricultural Feature	U
966	CA-LAN-1546H	Historic	Homesite/Homestead	U
967	CA-LAN-1547H	Historic	Homesite/Homestead	U
968	CA-KER-6177H	Historic	Mine Related	U
969	CA-LAN-1504H	Historic	Agricultural Feature	U
970	CA-LAN-1483H	Historic	Homesite/Homestead	U
972	CA-LAN-1296/H	Historic	Homesite/Homestead	U
976	CA-LAN-2170H	Historic	Agricultural Feature	U
977	CA-KER-1883H	Historic	Homesite/Homestead	U
978	CA-KER-2302	Prehistoric	Hearth/Roasting Pit	U
979	CA-KER-2303H	Historic	Historic Period Refuse Deposit	U
980	CA-KER-2304H	Historic	Historic Period Refuse Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
981	CA-KER-4039H	Historic	Historic Period Refuse Deposit	U
982	CA-KER-4039H	Military	Aircraft/Aerospace Vehicle Crash Site	U
984	CA-LAN-1467	Prehistoric	Temporary Camp	U
985	CA-LAN-1468	Prehistoric	Lithic Deposit	U
986	CA-LAN-1469H	Historic	Historic Period Refuse Deposit	U
987	CA-LAN-2181H	Historic	Agricultural Feature	U
988	CA-KER-2559	Prehistoric	Temporary Camp	I
989	CA-LAN-1470	Prehistoric	Lithic Deposit	U
990	CA-KER-2373H	Historic	Homesite/Homestead	E
992	CA-LAN-1505H	Historic	Homesite/Homestead	U
993	CA-LAN-1507H	Historic	Homesite/Homestead	U
994	CA-LAN-1506	Prehistoric	Temporary Camp	U
995	CA-LAN-1508/H	Historic	Historic Period Refuse Deposit	U
996	CA-LAN-2983H	Historic	Historic Period Refuse Deposit	U
997	CA-KER-2390	Prehistoric	Temporary Camp	U
998	CA-KER-2389	Prehistoric	Lithic Deposit	U
999	CA-LAN-1511H	Historic	Homesite/Homestead	U
1000	CA-LAN-1296/H	Prehistoric	Base Camp/Village	E
1001	CA-LAN-1439H	Historic	Homesite/Homestead	U
1002	CA-LAN-2985H	Historic	Historic Period Refuse Deposit	U
1003	CA-LAN-3047H	Historic	Historic Period Refuse Deposit	U
1004	CA-LAN-1438	Prehistoric	Lithic Deposit	U
1005	CA-LAN-2984H	Historic	Historic Period Refuse Deposit	U
1006	CA-LAN-3050H	Historic	Historic Period Refuse Deposit	U
1007	CA-LAN-3049H	Historic	Historic Period Refuse Deposit	U
1008	CA-LAN-2981H	Historic	Historic Period Refuse Deposit	U
1009	CA-LAN-3143H	Historic	Historic Period Refuse Deposit	U
1010	CA-LAN-3144H	Historic	Historic Period Refuse Deposit	U
1011	CA-LAN-3145H	Historic	Historic Period Refuse Deposit	U
1012	CA-LAN-3146H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1015	CA-LAN-1437H	Historic	Historic Period Refuse Deposit	U
1016	CA-LAN-6097H	Historic	Historic Period Refuse Deposit	U
1018	CA-KER-4468H	Military	Inactive Building/Facility – Target Complex, PB-7	U
1019	CA-KER-2372H	Historic	Homesite/Homestead	E
1020	CA-KER-6098H	Historic	Homesite/Homestead	U
1021	CA-KER-5062H	Historic	Homesite/Homestead	I
1022	CA-KER-2371H	Historic	Homesite/Homestead	I
1023	CA-KER-6118H	Historic	Homesite/Homestead	I
1024	CA-KER-2443H	Historic	Homesite/Homestead	U
1025	CA-LAN-1921H	Historic	Homesite/Homestead	U
1027	CA-KER-6099H	Historic	Mine, Prospect	U
1028	CA-LAN-1544H	Historic	Homesite/Homestead	U
1029	CA-LAN-3056H	Historic	Homesite/Homestead	E
1032	CA-LAN-2031H	Historic	Homesite/Homestead	U
1033	CA-LAN-1584	Prehistoric	Temporary Camp	I
1034	CA-KER-2479H	Historic	Historic Period Refuse Deposit	U
1035	CA-KER-2480	Prehistoric	Temporary Camp	I
1036	CA-KER-2484H	Historic	Homesite/Homestead	U
1039	CA-KER-2482/H	Prehistoric	Temporary Camp	E
1040	CA-LAN-1585	Prehistoric	Temporary Camp	E
1041	CA-LAN-1586/H	Prehistoric	Temporary Camp	I
1044	CA-LAN-1589H	Historic	Homesite/Homestead	I
1045	CA-LAN-1590	Prehistoric	Temporary Camp	U
1046	CA-LAN-1591	Prehistoric	Lithic Deposit	I
1049	CA-LAN-3048H	Historic	Agricultural Feature, Well	U
1050	CA-KER-5658H	Historic	Agricultural Feature, Well	U
1052	CA-KER-4932H	Historic	Agricultural Feature, Well	U
1054	CA-KER-2533	Prehistoric	Hearth/Roasting Pit	U
1055	CA-KER-2534	Prehistoric	Hearth/Roasting Pit	U
1056	CA-KER-2535	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1057	CA-KER-2531	Prehistoric	Lithic Deposit	U
1058	CA-SBR-6296/H	Prehistoric	Temporary Camp	U
1061	CA-LAN-XXXXH	Historic	Agricultural Feature, Well	U
1064	CA-LAN-2973H	Historic	Agricultural Feature, Well	U
1065	CA-KER-2532	Prehistoric	Temporary Camp	I
1066	CA-KER-6100H	Historic	Historic Period Refuse Deposit	U
1067	CA-KER-2543	Prehistoric	Hearth/Roasting Pit	U
1068	CA-KER-6184H	Historic	Historic Period Refuse Deposit	U
1069	CA-LAN-1702/H	Prehistoric	Temporary Camp	E
1070	CA-KER-4337	Prehistoric	Lithic Deposit	I
1071	CA-KER-4338	Prehistoric	Lithic Deposit	I
1072	CA-KER-4346H	Historic	Historic Period Refuse Deposit	U
1073	CA-KER-4347	Prehistoric	Bone Deposit/Nonhuman	I
1074	CA-KER-4348	Prehistoric	Lithic Deposit	U
1075	CA-KER-4339	Prehistoric	Milling Station – Portable Metate or Mortar	U
1076	CA-KER-4340	Prehistoric	Lithic Deposit	I
1077	CA-KER-4342	Prehistoric	Lithic Deposit	U
1078	CA-KER-4343	Prehistoric	Lithic Deposit	U
1079	CA-KER-4344/H	Historic	Homesite/Homestead	U
1080	CA-KER-4341	Prehistoric	Temporary Camp	U
1081	CA-KER-4206	Prehistoric	Lithic Deposit	U
1082	CA-KER-4207	Prehistoric	Lithic Deposit	U
1083	CA-KER-4208/H	Military	Inactive Building/Facility – Foundation/Ruins	U
1084	CA-KER-4209H	Historic	Historic Period Refuse Deposit	U
1085	CA-KER-4210	Prehistoric	Lithic Deposit	U
1086	CA-KER-4211	Prehistoric	Milling Station – Portable Metate or Mortar	U
1087	CA-KER-4212	Prehistoric	Temporary Camp	U
1088	CA-KER-4213H	Historic	Homesite/Homestead	U
1089	CA-KER-4456	Prehistoric	Temporary Camp	U
1090	CA-KER-4215	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1091	CA-KER-4216	Prehistoric	Lithic Deposit	U
1092	CA-KER-4217	Prehistoric	Lithic Deposit	U
1093	CA-KER-4218	Prehistoric	Lithic Deposit	U
1094	CA-KER-4344/H	Prehistoric	Hearth/Roasting Pit	U
1095	CA-KER-4246	Prehistoric	Lithic Deposit	U
1096	CA-KER-4225	Prehistoric	Lithic Deposit	U
1097	CA-KER-4224	Prehistoric	Lithic Deposit	U
1098	CA-KER-4245	Prehistoric	Lithic Deposit	I
1099	CA-KER-4234	Prehistoric	Temporary Camp	U
1100	CA-KER-4237H	Historic	Historic Period Refuse Deposit	U
1101	CA-KER-4236	Prehistoric	Lithic Deposit	I
1102	CA-KER-4235	Prehistoric	Temporary Camp	U
1103	CA-KER-4223	Prehistoric	Lithic Deposit	U
1104	CA-KER-4244	Prehistoric	Lithic Deposit	U
1105	CA-KER-4233	Prehistoric	Lithic Deposit	I
1106	CA-KER-4232H	Military	Inactive Building/Facility – Foundation/Ruins	U
1107	CA-KER-4231	Prehistoric	Lithic Deposit	U
1108	CA-KER-4230	Prehistoric	Lithic Deposit	U
1109	CA-KER-4229	Prehistoric	Lithic Deposit	U
1110	CA-KER-4243	Prehistoric	Lithic Deposit	I
1111	CA-KER-5300	Prehistoric	Temporary Camp	U
1112	CA-KER-4222	Prehistoric	Lithic Deposit	I
1113	CA-KER-4238	Prehistoric	Lithic Deposit	I
1114	CA-KER-4228	Prehistoric	Lithic Deposit	U
1115	CA-KER-4227	Prehistoric	Lithic Deposit	I
1116	CA-LAN-1707/H	Prehistoric	Temporary Camp	I
1117	CA-LAN-2266H	Historic	Historic Period Refuse Deposit	U
1118	CA-LAN-1720	Prehistoric	Temporary Camp	U
1119	CA-LAN-1723H	Historic	Homesite/Homestead	U
1120	CA-LAN-3062H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1121	CA-KER-2562	Prehistoric	Temporary Camp	I
1122	CA-LAN-1722H	Historic	Homesite/Homestead	U
1123	CA-KER-2566	Prehistoric	Temporary Camp	U
1124	CA-KER-6169H	Historic	Historic Period Refuse Deposit	U
1125	CA-KER-2560H	Historic	Homesite/Homestead	U
1126	CA-KER-2561	Prehistoric	Temporary Camp	U
1127	CA-KER-2564	Prehistoric	Temporary Camp	U
1128	CA-KER-2565	Prehistoric	Lithic Deposit	U
1129	CA-KER-6187H	Historic	Historic Period Refuse Deposit	U
1130	CA-KER-2601	Prehistoric	Hearth/Roasting Pit	I
1131	CA-KER-2602	Prehistoric	Hearth/Roasting Pit	U
1133	CA-LAN-1727/H	Prehistoric	Temporary Camp	U
1134	CA-LAN-2980H	Historic	Historic Period Refuse Deposit	U
1135	CA-KER-6171H	Historic	Historic Period Refuse Deposit	U
1136	CA-KER-2603	Prehistoric	Hearth/Roasting Pit	U
1137	CA-LAN-1730H	Historic	Homesite/Homestead	U
1138	CA-KER-2711	Prehistoric	Temporary Camp	I
1139	CA-LAN-1797H	Historic	Homesite/Homestead	U
1140	CA-LAN-1798	Prehistoric	Temporary Camp	U
1141	CA-LAN-1801H	Historic	Homesite/Homestead	U
1142	CA-KER-6101H	Historic	Historic Period Refuse Deposit	U
1143	CA-KER-2732	Prehistoric	Temporary Camp	U
1144	CA-KER-2733/H	Prehistoric	Lithic Deposit	U
1145	CA-KER-2731/H	Prehistoric	Temporary Camp	U
1147	CA-LAN-1805	Prehistoric	Temporary Camp	I
1148	CA-KER-2841	Prehistoric	Hearth/Roasting Pit	U
1149	CA-LAN-2979H	Historic	Agricultural Feature	U
1150	CA-KER-2816	Prehistoric	Temporary Camp	E
1151	CA-KER-2817	Prehistoric	Temporary Camp	E
1152	CA-KER-2842	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1153	CA-KER-2843	Prehistoric	Hearth/Roasting Pit	I
1154	CA-KER-2844	Prehistoric	Hearth/Roasting Pit	U
1155	CA-LAN-1833	Prehistoric	Temporary Camp	I
1156	CA-KER-2845	Prehistoric	Hearth/Roasting Pit	U
1157	CA-KER-2846	Prehistoric	Hearth/Roasting Pit	U
1158	CA-KER-2847	Prehistoric	Hearth/Roasting Pit	U
1159	CA-KER-2855	Prehistoric	Hearth/Roasting Pit	U
1160	CA-KER-2856	Prehistoric	Hearth/Roasting Pit	U
1161	CA-KER-2857	Prehistoric	Hearth/Roasting Pit	U
1162	CA-KER-2858	Prehistoric	Hearth/Roasting Pit	U
1163	CA-KER-2859	Prehistoric	Hearth/Roasting Pit	U
1164	CA-KER-2860	Prehistoric	Hearth/Roasting Pit	U
1165	CA-KER-2861	Prehistoric	Hearth/Roasting Pit	U
1166	CA-KER-2862	Prehistoric	Hearth/Roasting Pit	U
1167	CA-KER-2863	Prehistoric	Lithic Deposit	U
1168	CA-KER-2837	Prehistoric	Hearth/Roasting Pit	I
1169	CA-KER-2970	Prehistoric	Hearth/Roasting Pit	U
1170	CA-KER-2838	Prehistoric	Hearth/Roasting Pit	U
1171	CA-KER-2839	Prehistoric	Hearth/Roasting Pit	U
1172	CA-LAN-1863H	Historic	Homesite/Homestead	U
1173	CA-KER-2966	Prehistoric	Temporary Camp	E
1174	CA-KER-2967/H	Prehistoric	Temporary Camp	E
1175	CA-KER-2968	Prehistoric	Hearth/Roasting Pit	E
1176	CA-LAN-1876	Prehistoric	Hearth/Roasting Pit	U
1177	CA-LAN-1875H	Historic	Mine, Claim	U
1178	CA-KER-2975/H	Prehistoric	Hearth/Roasting Pit	U
1179	CA-KER-2976	Prehistoric	Hearth/Roasting Pit	U
1180	CA-KER-2997H	Historic	Mine, Drilling Site – Oil	E
1181	CA-KER-6180H	Historic	Homesite/Homestead	U
1187	CA-LAN-3061H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1189	CA-SBR-6876	Prehistoric	Lithic Deposit	U
1190	CA-KER-2702H	Historic	Historic Period Rock Feature	U
1191	CA-SBR-7012	Prehistoric	Temporary Camp	U
1192	CA-SBR-7013	Prehistoric	Temporary Camp	U
1193	CA-KER-2692	Prehistoric	Milling Station – Bedrock Mortar and Slick	I
1194	CA-KER-2693	Prehistoric	Hearth/Roasting Pit	I
1196	CA-KER-6102H	Historic	Historic Period Refuse Deposit	U
1197	CA-KER-4061H	Historic	Historic Period Refuse Deposit	U
1198	CA-KER-2695	Prehistoric	Hearth/Roasting Pit	U
1199	CA-KER-2696	Prehistoric	Hearth/Roasting Pit	U
1200	CA-KER-2697	Prehistoric	Hearth/Roasting Pit	U
1201	CA-KER-2698	Prehistoric	Hearth/Roasting Pit	U
1202	CA-KER-2699	Prehistoric	Hearth/Roasting Pit	U
1203	CA-KER-2700	Prehistoric	Hearth/Roasting Pit	U
1204	CA-KER-2701	Prehistoric	Hearth/Roasting Pit	U
1205	CA-KER-3062	Prehistoric	Hearth/Roasting Pit	U
1206	CA-KER-3097	Prehistoric	Hearth/Roasting Pit	U
1209	CA-KER-3266	Prehistoric	Temporary Camp	I
1210	CA-SBR-10719H	Historic	Mine, Camp/Occupation	U
1211	CA-SBR-10792H	Historic	Ranching Feature	U
1212	CA-KER-4286	Prehistoric	Lithic Deposit	U
1213	CA-KER-4469H	Military	Inactive Building/Facility – Target Complex	U
1215	CA-KER-4264	Prehistoric	Lithic Deposit	I
1216	CA-KER-4257H	Historic	Historic Period Refuse Deposit	U
1219	CA-KER-4354H	Historic	Historic Period Refuse Deposit	U
1222	CA-LAN– 828/H	Historic	Homesite/Homestead	U
1223	CA-KER-3158	Prehistoric	Quarry/Lithic Source – Exploited Bedrock Source	I
1224	CA-KER-3421	Prehistoric	Quarry/Lithic Source – Exploited Bedrock Source	I
1225	CA-KER-3273/H	Prehistoric	Temporary Camp	U
1226	CA-KER-3272	Prehistoric	Quarry/Lithic Source – Exploited Bedrock Source	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1227	CA-KER-3351	Prehistoric	Milling Station	U
1228	CA-KER-3352H	Historic	Mine, Prospect	U
1229	CA-KER-3353	Prehistoric	Milling Station	U
1230	CA-KER-4317	Prehistoric	Hearth/Roasting Pit	I
1231	CA-KER-3354H	Historic	Mine, Camp/Occupation	I
1232	CA-KER-3361	Prehistoric	Temporary Camp	E
1233	CA-KER-3362/H	Prehistoric	Temporary Camp	E
1234	CA-KER-3372	Prehistoric	Temporary Camp	U
1235	CA-KER-3373	Prehistoric	Lithic Deposit	U
1236	CA-KER-3374	Prehistoric	Lithic Deposit	U
1237	CA-KER-3375	Prehistoric	Lithic Deposit	U
1238	CA-KER-3376H	Historic	Historic Period Refuse Deposit	U
1239	CA-KER-3377	Prehistoric	Temporary Camp	I
1240	CA-KER-3378H	Historic	Historic Period Refuse Deposit	U
1241	CA-KER-3379	Prehistoric	Temporary Camp	I
1242	CA-KER-4226H	Historic	Historic Period Refuse Deposit	U
1243	CA-SBR-7202	Prehistoric	Lithic Deposit	U
1244	CA-KER-3422H	Historic	Historic Period Refuse Deposit	U
1245	CA-KER-3423	Prehistoric	Lithic Deposit	U
1246	CA-KER-3424	Prehistoric	Temporary Camp	U
1247	CA-KER-3425H	Historic	Historic Period Refuse Deposit	U
1248	CA-KER-3426	Prehistoric	Lithic Deposit	U
1249	CA-KER-3427H	Historic	Historic Period Refuse Deposit	U
1250	CA-KER-3428H	Historic	Historic Period Refuse Deposit	I
1251	CA-KER-3429H	Historic	Historic Period Refuse Deposit	I
1252	CA-KER-3430	Prehistoric	Lithic Deposit	U
1253	CA-KER-3431	Prehistoric	Bone Deposit/Nonhuman	U
1254	CA-KER-3432	Prehistoric	Lithic Deposit	I
1255	CA-KER-3433	Prehistoric	Temporary Camp	U
1256	CA-KER-3434	Prehistoric	Lithic Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1257	CA-KER-3435H	Historic	Mine, Claim	U
1258	CA-KER-3436H	Historic	Mine, Claim	U
1259	CA-KER-3437	Prehistoric	Lithic Deposit	U
1260	CA-KER-3438H	Historic	Historic Period Refuse Deposit	U
1261	CA-KER-3439	Prehistoric	Temporary Camp	U
1262	CA-KER-3440H	Historic	Mine, Claim	U
1263	CA-KER-3441	Prehistoric	Lithic Deposit	U
1264	CA-KER-3442	Prehistoric	Lithic Deposit	I
1265	CA-KER-3443/H	Prehistoric	Lithic Deposit	I
1266	CA-KER-3443/H	Historic	Agricultural Feature, Machinery	I
1267	CA-KER-3444	Prehistoric	Temporary Camp	U
1268	CA-KER-3554H	Military	Inactive Building/Facility – Foundation/Ruins, Atlas Test Complex	U
1269	CA-KER-3445	Prehistoric	Milling Station – Bedrock Milling Slick	U
1270	CA-SBR-7333H	Historic	Mine, Camp/Occupation	E
1271	CA-SBR-7335H	Historic	Mine, Open Pit	U
1272	CA-SBR-7336H	Historic	Mine, Prospect	U
1273	CA-SBR-7337H	Historic	Mine, Prospect	U
1274	CA-SBR-7339H	Historic	Mine, Camp/Occupation	E
1275	CA-KER-3446H	Historic	Historic Period Refuse Deposit	U
1276	CA-KER-3447	Prehistoric	Lithic Deposit	U
1277	CA-KER-3448	Prehistoric	Lithic Deposit	U
1278	CA-SBR-7340	Prehistoric	Temporary Camp	I
1279	CA-SBR-7341	Prehistoric	Lithic Deposit	U
1280	CA-KER-3449	Prehistoric	Milling Station – Bedrock Milling Slick	U
1281	CA-KER-3450	Prehistoric	Milling Station – Bedrock Mortar	U
1282	CA-KER-3451	Prehistoric	Lithic Deposit	U
1283	CA-SBR-7342	Prehistoric	Lithic Deposit	U
1284	CA-SBR-7343	Prehistoric	Temporary Camp	I
1285	CA-KER-3452	Prehistoric	Lithic Deposit	I
1286	CA-KER-3453	Prehistoric	Lithic Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1287	CA-KER-3454H	Historic	Mine, Prospect	U
1288	CA-KER-3455H	Historic	Mine, Prospect	U
1289	CA-KER-3456H	Historic	Mine, Prospect	U
1290	CA-KER-3457H	Historic	Mine, Prospect	U
1291	CA-KER-3458H	Historic	Mine, Prospect	U
1292	CA-SBR-7344	Prehistoric	Lithic Deposit	E
1293	CA-KER-3459H	Historic	Mine, Camp/Occupation	U
1294	CA-KER-3460H	Historic	Mine, Camp/Occupation	U
1295	CA-KER-3461H	Historic	Mine, Camp/Occupation	U
1296	CA-KER-3462	Prehistoric	Prehistoric Pock Alignments/Features – Possible Hunting Blind	U
1297	CA-KER-3463	Prehistoric	Hearth/Roasting Pit	U
1298	CA-SBR-7345	Prehistoric	Temporary Camp	U
1299	CA-KER-3464	Prehistoric	Hearth/Roasting Pit	U
1300	CA-KER-3465	Prehistoric	Milling Station – Bedrock Milling Slick	U
1301	CA-KER-3468H	Historic	Historic Period Rock Feature – Hearth	E
1302	CA-SBR-7346	Prehistoric	Lithic Deposit	U
1303	CA-KER-3466H	Historic	Mine, Claim	U
1304	CA-KER-3467H	Historic	Mine, Claim	U
1306	CA-KER-3556/H	Prehistoric	Lithic Deposit	I
1307	CA-KER-3556/H	Historic	Historic Period Refuse Deposit	I
1309	CA-KER-3511	Prehistoric	Lithic Deposit	U
1310	CA-KER-3525	Prehistoric	Lithic Deposit	U
1311	CA-KER-3526	Prehistoric	Temporary Camp	I
1312	CA-KER-3824	Prehistoric	Lithic Deposit	I
1313	CA-KER-3871H	Military	Inactive Building/Facility – Foundation/Ruins	I
1314	CA-KER-3872H	Historic	Historic Period Refuse Deposit	I
1315	CA-KER-3873	Prehistoric	Lithic Deposit	I
1316	CA-KER-3874/H	Prehistoric	Temporary Camp	E
1317	CA-KER-3875/H	Prehistoric	Temporary Camp	E
1319	CA-KER-3876/H	Prehistoric	Temporary Camp	E

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1320	CA-KER-3877/H	Prehistoric	Temporary Camp	I
1321	CA-KER-3878/H	Prehistoric	Temporary Camp	I
1322	CA-KER-3823	Prehistoric	Cremation	I
1323	CA-KER-3532H	Historic	Road	I
1324	CA-KER-3533H	Historic	Road	I
1326	CA-KER-3848H	Military	Inactive Building/Facility – Target	U
1332	CA-SBR-10776	Prehistoric	Lithic Deposit	U
1333	CA-SBR-5158	Prehistoric	Lithic Deposit	U
1334	CA-SBR-10784	Prehistoric	Lithic Deposit	U
1335	CA-KER-3849H	Historic	Historic Period Refuse Deposit	I
1336	CA-LAN-2169H	Historic	Homesite/Homestead	U
1337	CA-LAN-2179H	Historic	Agricultural Feature, Well	U
1339	CA-KER-3880/H	Historic	Historic Period Rock Feature – Hearth	U
1340	CA-KER-4773/H	Prehistoric	Temporary Camp	E
1341	CA-KER-4773/H	Historic	Agricultural Feature, Well	U
1342	CA-KER-4773/H	Historic	Agricultural Feature, Well	U
1344	CA-KER-4787H	Historic	Agricultural Feature, Well	U
1345	CA-KER-4788H	Historic	Agricultural Feature, Well	U
1346	CA-KER-4774H	Historic	Homesite/Homestead	U
1347	CA-KER-4789H	Historic	Agricultural Feature, Well	U
1349	CA-KER-695H	Historic	Agricultural Feature, Well	U
1350	CA-KER-695H	Historic	Agricultural Feature, Well	U
1357	CA-LAN-2471H	Historic	Agricultural Feature, Well & Fence	U
1359	CA-KER-4776H	Historic	Agricultural Feature, Well & Holding Pond	U
1360	CA-KER-4777H	Historic	Agricultural Feature, Well	I
1362	CA-KER-4780/H	Historic	Agricultural Feature, Well	U
1363	CA-KER-4781/H	Historic	Agricultural Feature, Well	U
1364	CA-KER-4782H	Historic	Recreation Site – Duck Ponds/Well	U
1367	CA-KER-4783H	Historic	Agricultural Feature, Well	U
1370	CA-KER-4785H	Historic	Agricultural Feature, Well	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1373	CA-KER-695H	Historic	Agricultural Feature, Well	U
1374	CA-KER-695H	Historic	Agricultural Feature, Well	U
1375	CA-KER-695H	Historic	Agricultural Feature, Well	U
1376	CA-KER-695H	Historic	Agricultural Feature, Well	U
1378	CA-KER-695H	Historic	Agricultural Feature, Well	U
1379	CA-KER-695H	Historic	Agricultural Feature, Well	U
1381	CA-KER-4778H	Historic	Agricultural Feature, Well	I
1382	CA-KER-4784H	Military	Inactive Building/Facility	U
1383	CA-KER-4786H	Historic	Homesite/Homestead	U
1386	CA-KER-4779H	Historic	Homesite/Homestead	I
1387	CA-KER-4775H	Historic	Homesite/Homestead	U
1388	CA-KER-4775H	Historic	Agricultural Feature, Well	U
1389	CA-KER-695H	Historic	Agricultural Feature, Well	U
1393	CA-KER-3893	Prehistoric	Temporary Camp	U
1394	CA-KER-3894H	Historic	Historic Period Refuse Deposit	U
1395	CA-KER-3895H	Historic	Road	U
1396	CA-KER-3896H	Historic	Historic Period Refuse Deposit	U
1397	CA-KER-3897H	Historic	Mine, Prospect – Mud	U
1398	CA-KER-3899	Prehistoric	Temporary Camp	I
1399	CA-KER-3900	Prehistoric	Temporary Camp	I
1400	CA-KER-3901	Prehistoric	Lithic Deposit	I
1401	CA-KER-3902H	Historic	Agricultural Feature, Well	I
1402	CA-KER-5544H	Historic	Homesite/Homestead	I
1403		Military	Inactive Building/Facility	I
1408	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1409	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1410	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1411	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1412	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1413	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1414	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1415	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1416	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1417	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1418	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1419	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1420	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1421	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1422	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1423	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1424	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1425	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1426	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1427	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1428	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1429	CA-KER-1922H	Historic	Historic Period Refuse Deposit	I
1430	CA-KER-3917H	Historic	Historic Period Refuse Deposit	E
1431	CA-KER-3918	Prehistoric	Temporary Camp	I
1433	CA-KER-3919	Prehistoric	Temporary Camp	I
1434	CA-KER-3957H	Military	Aircraft/Aerospace Vehicle Crash Site – WWII	I
1435	CA-KER-3916H	Military	Inactive Building/Facility – Target	U
1436	CA-KER-3943H	Historic	Historic Period Refuse Deposit	U
1437	CA-KER-3915	Prehistoric	Lithic Deposit	I
1438	CA-KER-3914	Prehistoric	Lithic Deposit	I
1440	CA-KER-3936H	Historic	Historic Period Refuse Deposit	U
1441	CA-KER-3937	Prehistoric	Lithic Deposit	U
1442	CA-KER-3938H	Historic	Historic Period Refuse Deposit	U
1443	CA-KER-3948	Prehistoric	Temporary Camp	U
1444	CA-KER-3947	Prehistoric	Temporary Camp	U
1445	CA-KER-3946/H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1446	CA-KER-3982	Prehistoric	Lithic Deposit	U
1447	CA-KER-3983	Prehistoric	Temporary Camp	I
1448	CA-KER-3984	Prehistoric	Temporary Camp	U
1449	CA-KER-3985	Prehistoric	Temporary Camp	U
1450	CA-KER-3986	Prehistoric	Lithic Deposit	U
1451	CA-KER-3987	Prehistoric	Lithic Deposit	U
1452	CA-KER-3988/H	Prehistoric	Lithic Deposit	I
1453	CA-KER-3989/H	Prehistoric	Lithic Deposit	U
1454	CA-KER-3990	Prehistoric	Lithic Deposit	U
1455	CA-KER-3991	Prehistoric	Lithic Deposit	U
1456	CA-KER-3992	Prehistoric	Lithic Deposit	I
1457	CA-KER-3993	Prehistoric	Temporary Camp	I
1458	CA-KER-3994H	Historic	Historic Period Refuse Deposit	U
1459	CA-KER-3995	Prehistoric	Lithic Deposit	U
1460	CA-KER-3996	Prehistoric	Lithic Deposit	U
1461	CA-KER-3997	Prehistoric	Lithic Deposit	I
1462	CA-KER-3998	Prehistoric	Lithic Deposit	U
1463	CA-KER-3999	Prehistoric	Lithic Deposit	U
1464	CA-LAN-2219	Prehistoric	Temporary Camp	U
1465	CA-LAN-2218H	Historic	Historic Period Refuse Deposit	U
1466	CA-KER-4000H	Historic	Historic Period Refuse Deposit	U
1467	CA-KER-4001	Prehistoric	Lithic Deposit	U
1468	CA-KER-4002H	Historic	Historic Period Refuse Deposit	U
1469	CA-KER-4003	Prehistoric	Lithic Deposit	U
1470	CA-KER-4004	Prehistoric	Lithic Deposit	I
1471	CA-LAN-2217H	Historic	Historic Period Refuse Deposit	U
1472	CA-LAN-2220H	Historic	Historic Period Refuse Deposit	U
1473	CA-KER-4005H	Historic	Historic Period Refuse Deposit	U
1475	CA-KER-4029	Prehistoric	Lithic Deposit	U
1476	CA-KER-4030	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1477	CA-KER-4031H	Historic	Agricultural Feature	U
1478	CA-KER-4136H	Historic	Historic Period Refuse Deposit	U
1479	CA-KER-4137	Prehistoric	Hearth/Roasting Pit	I
1480	CA-KER-4138H	Military	Mine, Drilling Site	U
1481	CA-KER-4139	Prehistoric	Temporary Camp	U
1482	CA-KER-4140	Prehistoric	Lithic Deposit	U
1483	CA-KER-4141	Prehistoric	Lithic Deposit	U
1484	CA-KER-4142	Prehistoric	Lithic Deposit	U
1485	CA-KER-4143/H	Prehistoric	Lithic Deposit	I
1486	CA-KER-4144H	Historic	Historic Period Refuse Deposit	U
1487	CA-KER-4145	Prehistoric	Lithic Deposit	U
1488	CA-KER-4032	Prehistoric	Hearth/Roasting Pit	U
1489	CA-KER-4033	Prehistoric	Temporary Camp	U
1490	CA-KER-4034	Prehistoric	Hearth/Roasting Pit	U
1491	CA-KER-4035	Prehistoric	Temporary Camp	U
1492	CA-KER-4036	Prehistoric	Lithic Deposit	U
1493	CA-KER-4037H	Historic	Historic Period Refuse Deposit	U
1494	CA-KER-4038	Prehistoric	Lithic Deposit	U
1495	CA-KER-4039H	Historic	Historic Period Refuse Deposit	U
1498	CA-KER-4078H	Historic	Historic Period Refuse Deposit	I
1499	CA-KER-4077H	Historic	Historic Period Refuse Deposit	I
1500	CA-KER-4076H	Historic	Historic Period Refuse Deposit	U
1501	CA-KER-4075H	Historic	Historic Period Refuse Deposit	I
1502	CA-KER-4074H	Historic	Historic Period Refuse Deposit	U
1503	CA-KER-4073H	Historic	Historic Period Refuse Deposit	U
1504	CA-KER-4072	Prehistoric	Hearth/Roasting Pit	I
1505	CA-KER-4071	Prehistoric	Hearth/Roasting Pit	I
1506	CA-KER-4070	Prehistoric	Hearth/Roasting Pit	U
1507	CA-KER-4069	Prehistoric	Hearth/Roasting Pit	U
1508	CA-KER-4068	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1509	CA-KER-4067	Prehistoric	Hearth/Roasting Pit	U
1510	CA-KER-4066H	Historic	Historic Period Refuse Deposit	U
1511	CA-KER-4065	Prehistoric	Hearth/Roasting Pit	U
1512	CA-KER-4064	Prehistoric	Hearth/Roasting Pit	I
1513	CA-KER-4063H	Historic	Historic Period Refuse Deposit	I
1514	CA-KER-4062H	Historic	Historic Period Refuse Deposit	E
1515	CA-KER-4060H	Historic	Historic Period Refuse Deposit	I
1516	CA-KER-4059H	Historic	Historic Period Refuse Deposit	E
1517	CA-KER-4058H	Historic	Historic Period Refuse Deposit	U
1518	CA-KER-4056	Prehistoric	Bone Deposit/Nonhuman	U
1519	CA-KER-4055H	Historic	Agricultural Feature, Machinery	U
1520	CA-KER-4054H	Historic	Historic Period Refuse Deposit	U
1521	CA-KER-4053	Prehistoric	Hearth/Roasting Pit	U
1522	CA-KER-4052H	Historic	Historic Period Refuse Deposit	I
1523	CA-KER-4051H	Historic	Historic Period Refuse Deposit	U
1524	CA-KER-4155H	Historic	Historic Period Refuse Deposit	U
1525	CA-KER-4152	Prehistoric	Temporary Camp	E
1526	CA-KER-4151H	Historic	Historic Period Refuse Deposit	I
1527	CA-KER-2256	Prehistoric	Lithic Deposit	I
1528	CA-KER-4154H	Historic	Historic Period Refuse Deposit	U
1529	CA-KER-2255	Prehistoric	Temporary Camp	I
1530	CA-LAN-2244/H	Prehistoric	Lithic Deposit	I
1531	CA-KER-4200	Prehistoric	Lithic Deposit	U
1532	CA-KER-4040	Prehistoric	Lithic Deposit	I
1533	CA-SBR-8060H	Historic	Mine, Developed Shaft	U
1534	CA-KER-4129	Prehistoric	Temporary Camp	I
1535	CA-KER-4130	Prehistoric	Lithic Deposit	I
1536	CA-KER-4131	Prehistoric	Lithic Deposit	I
1537	CA-KER-4132	Prehistoric	Lithic Deposit	I
1538	CA-KER-4133	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1539	CA-KER-4134	Prehistoric	Lithic Deposit	I
1541	CA-KER-4012	Prehistoric	Lithic Deposit	U
1542	CA-KER-4156	Prehistoric	Lithic Deposit	U
1543	CA-KER-4153/H	Prehistoric	Temporary Camp	U
1544	CA-KER-4081	Prehistoric	Temporary Camp	E
1545	CA-KER-4161H	Historic	Historic Period Refuse Deposit	U
1546	CA-KER-4157	Prehistoric	Lithic Deposit	U
1547	CA-KER-4158H	Historic	Historic Period Refuse Deposit	I
1548	CA-KER-4159H	Historic	Historic Period Refuse Deposit	U
1549	CA-LAN-2257H	Historic	Historic Period Refuse Deposit	U
1550	CA-LAN-2258H	Historic	Historic Period Refuse Deposit	U
1551	CA-KER-4169H	Historic	Mine, Claim	U
1552	CA-KER-4170	Prehistoric	Temporary Camp	I
1553	CA-KER-4171	Prehistoric	Hearth/Roasting Pit	I
1554	CA-KER-4172H	Historic	Mine, Prospect	U
1555	CA-KER-4173H	Historic	Mine, Prospect	U
1556	CA-KER-4174	Prehistoric	Lithic Deposit	U
1557	CA-KER-4175H	Historic	Mine, Prospect	U
1558	CA-KER-4176H	Historic	Historic Period Refuse Deposit	U
1559	CA-KER-4177	Prehistoric	Lithic Deposit	U
1560	CA-KER-4178	Prehistoric	Milling Station – Bedrock Mortar and Slick	U
1561	CA-KER-4179H	Historic	Historic Period Refuse Deposit	U
1562	CA-KER-4180	Prehistoric	Lithic Deposit	I
1563	CA-KER-4181H	Historic	Mine, Claim	U
1564	CA-KER-4182H	Historic	Historic Period Refuse Deposit	U
1565	CA-KER-4183H	Historic	Mine, Prospect	U
1566	CA-KER-539H	Historic	Historic Period Refuse Deposit	U
1567	CA-KER-4184H	Historic	Mine, Prospect	U
1568	CA-KER-4185H	Historic	Historic Period Refuse Deposit	U
1569	CA-LAN-1296/H	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1570	CA-KER-4294H	Historic	Historic Period Refuse Deposit	U
1571	CA-KER-4295	Prehistoric	Hearth/Roasting Pit	U
1572	CA-KER-4296	Prehistoric	Temporary Camp	U
1573	CA-KER-4275	Prehistoric	Temporary Camp	I
1574	CA-KER-4274	Prehistoric	Temporary Camp	I
1575	CA-KER-4273	Prehistoric	Lithic Deposit	I
1576	CA-KER-4271/H	Historic	Historic Period Refuse Deposit	U
1577	CA-KER-4270	Prehistoric	Lithic Deposit	U
1578	CA-KER-4363	Prehistoric	Lithic Deposit	U
1579	CA-KER-4268	Prehistoric	Lithic Deposit	I
1580	CA-KER-4267/H	Prehistoric	Lithic Deposit	I
1581	CA-KER-4266H	Historic	Historic Period Refuse Deposit	U
1582	CA-KER-4256	Prehistoric	Lithic Deposit	I
1583	CA-KER-4527/H	Prehistoric	Temporary Camp	U
1584	CA-KER-4528	Prehistoric	Lithic Deposit	U
1585	CA-KER-673/H	Historic	Historic Period Refuse Deposit	U
1585	CA-LAN-2389H	Historic	Historic Period Refuse Deposit	U
1586	CA-KER-4146	Prehistoric	Lithic Deposit	U
1587	CA-KER-4147	Prehistoric	Lithic Deposit	U
1588	CA-KER-4149H	Military	Inactive Building/Facility – Foundation/Ruins	U
1589	CA-KER-4148H	Historic	Historic Period Refuse Deposit	U
1590	CA-KER-4150	Prehistoric	Lithic Deposit	U
1591	CA-SBR-7541	Prehistoric	Lithic Deposit	U
1592	CA-SBR-7542	Prehistoric	Lithic Deposit	U
1593	CA-SBR-7681	Prehistoric	Lithic Deposit	U
1594	CA-SBR-7690	Prehistoric	Lithic Deposit	U
1596	CA-KER-4160	Prehistoric	Hearth/Roasting Pit	U
1597	CA-KER-4273	Prehistoric	Lithic Deposit	I
1598	CA-KER-4269H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1599	CA-KER-4258	Prehistoric	Lithic Deposit	U
1600	CA-KER-4261	Prehistoric	Lithic Deposit	I
1601	CA-KER-4262	Prehistoric	Lithic Deposit	U
1602	CA-KER-4263	Prehistoric	Lithic Deposit	U
1603	CA-KER-4264	Prehistoric	Lithic Deposit	U
1604	CA-KER-4290H	Historic	Historic Period Refuse Deposit	U
1605	CA-KER-4285H	Historic	Ranching Feature – Possible Chicken Pen	U
1606	CA-KER-4467	Prehistoric	Lithic Deposit	I
1607	CA-KER-4291	Prehistoric	Lithic Deposit	U
1608	CA-KER-4292	Prehistoric	Temporary Camp	U
1609	CA-KER-4293	Prehistoric	Lithic Deposit	U
1610	CA-KER-4239	Prehistoric	Lithic Deposit	U
1611	CA-KER-4332/H	Prehistoric	Temporary Camp	U
1612	CA-KER-4331	Prehistoric	Lithic Deposit	U
1613	CA-KER-4330	Prehistoric	Lithic Deposit	U
1614	CA-KER-4203	Prehistoric	Temporary Camp	I
1615	CA-KER-4326H	Military	Inactive Building/Facility – Foundation/Ruins	U
1616	CA-KER-4327	Prehistoric	Lithic Deposit	U
1617	CA-KER-4328H	Military	Inactive Building/Facility – Foundation/Ruins	U
1618	CA-KER-4355H	Historic	Homesite/Homestead	U
1619	CA-KER-4278	Prehistoric	Temporary Camp	U
1620	CA-KER-4277	Prehistoric	Temporary Camp	E
1621	CA-KER-4276	Prehistoric	Temporary Camp	I
1622	CA-KER-525/H	Historic	Historic Period Refuse Deposit	U
1623	CA-KER-4265	Prehistoric	Temporary Camp	U
1624	CA-LAN-2259	Prehistoric	Temporary Camp	U
1625	CA-KER-4201	Prehistoric	Lithic Deposit	U
1627	CA-KER-4277	Prehistoric	Lithic Deposit	U
1646	CA-KER-1812H	Historic	Recreation Site	U
1662	CA-KER-1812H	Historic	Recreation Site	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1671	CA-KER-1812H	Historic	Recreation Site	U
1676	CA-KER-4289H	Historic	Historic Period Refuse Deposit	U
1686	CA-KER-6103	Prehistoric	Lithic Deposit	U
1688	CA-KER-4329	Prehistoric	Temporary Camp	U
1689	CA-KER-4333/H	Prehistoric	Temporary Camp	I
1690	CA-KER-4334	Prehistoric	Lithic Deposit	U
1691	CA-KER-4335H	Historic	Mine, Prospect	U
1692	CA-KER-4336	Prehistoric	Temporary Camp	U
1693	CA-LAN-2270H	Historic	Historic Period Refuse Deposit	U
1694	CA-LAN-2271	Prehistoric	Temporary Camp	U
1695	CA-LAN-2272H	Historic	Historic Period Refuse Deposit	U
1696	CA-LAN-2273	Prehistoric	Lithic Deposit	U
1697	CA-LAN-2274H	Historic	Historic Period Refuse Deposit	U
1698	CA-LAN-2275	Prehistoric	Temporary Camp	U
1699	CA-LAN-2276	Prehistoric	Lithic Deposit	U
1700	CA-LAN-2277	Prehistoric	Lithic Deposit	U
1701	CA-LAN-2278H	Historic	Historic Period Refuse Deposit	U
1702	CA-LAN-2352H	Historic	Agricultural Feature, Holding Pond	U
1703	CA-LAN-2279	Prehistoric	Lithic Deposit	U
1704	CA-LAN-2280H	Historic	Historic Period Refuse Deposit	U
1705	CA-LAN-2281	Prehistoric	Lithic Deposit	U
1706	CA-LAN-2282H	Historic	Historic Period Refuse Deposit	U
1707	CA-LAN-2283H	Historic	Historic Period Refuse Deposit	U
1708	CA-LAN-2284	Prehistoric	Lithic Deposit	U
1709	CA-LAN-2285	Prehistoric	Lithic Deposit	U
1710	CA-LAN-2286	Prehistoric	Lithic Deposit	U
1711	CA-LAN-2287	Prehistoric	Lithic Deposit	U
1712	CA-LAN-2288	Prehistoric	Temporary Camp	U
1713	CA-LAN-2353	Prehistoric	Temporary Camp	U
1714	CA-LAN-2354H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1715	CA-LAN-2290H	Historic	Historic Period Refuse Deposit	U
1716	CA-LAN-2291	Prehistoric	Lithic Deposit	U
1717	CA-LAN-2300H	Historic	Historic Period Refuse Deposit	U
1718	CA-LAN-2301	Prehistoric	Lithic Deposit	U
1719	CA-LAN-2356	Prehistoric	Lithic Deposit	U
1720	CA-KER-5674H	Historic	Survey Marker/Site	U
1721	CA-LAN-2302	Prehistoric	Temporary Camp	U
1722	CA-LAN-2295	Prehistoric	Temporary Camp	U
1723	CA-LAN-2355	Prehistoric	Lithic Deposit	U
1724	CA-LAN-2298H	Historic	Historic Period Refuse Deposit	U
1725	CA-LAN-2304H	Historic	Historic Period Refuse Deposit	U
1726	CA-LAN-2299H	Historic	Historic Period Refuse Deposit	U
1727	CA-LAN-2292	Prehistoric	Lithic Deposit	U
1728	CA-LAN-2293H	Historic	Historic Period Refuse Deposit	U
1729	CA-LAN-2294H	Historic	Historic Period Refuse Deposit	U
1730	CA-LAN-2296H	Historic	Historic Period Refuse Deposit	U
1731	CA-LAN-2297H	Historic	Historic Period Refuse Deposit	U
1732	CA-LAN-2357H	Historic	Historic Period Refuse Deposit	U
1733	CA-LAN-2289	Prehistoric	Temporary Camp	U
1734	CA-KER-4221H	Military	Inactive Building/Facility – Foundation/Ruins	U
1735	CA-KER-4240	Prehistoric	Lithic Deposit	U
1736	CA-KER-4252	Prehistoric	Lithic Deposit	U
1737	CA-KER-4251	Prehistoric	Lithic Deposit	I
1738	CA-KER-4250	Prehistoric	Lithic Deposit	U
1739	CA-KER-4249	Prehistoric	Lithic Deposit	I
1740	CA-KER-4248	Prehistoric	Temporary Camp	U
1741	CA-KER-4247	Prehistoric	Temporary Camp	U
1742	CA-KER-4279H	Historic	Historic Period Refuse Deposit	U
1743	CA-KER-4280H	Historic	Homesite/Homestead	U
1744	CA-KER-4242	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1745	CA-KER-4241	Prehistoric	Temporary Camp	I
1746	CA-KER-4353	Prehistoric	Lithic Deposit	U
1748	CA-KER-4260H	Historic	Homesite/Homestead	U
1749	CA-KER-4283	Prehistoric	Lithic Deposit	U
1750	CA-KER-4282	Prehistoric	Temporary Camp	U
1751	CA-KER-XXXXH	Historic	Agricultural Feature, Well	U
1752	CA-KER-2940H	Historic	Agricultural Feature, Well	I
1753	CA-KER-4281	Prehistoric	Lithic Deposit	I
1754	CA-LAN-2305	Prehistoric	Lithic Deposit	I
1755	CA-KER-4487H	Historic	Historic Period Refuse Deposit	U
1756	CA-KER-XXXXH	Historic	Homesite/Homestead	U
1757	CA-KER-XXXXH	Historic	Historic Period Refuse Deposit	U
1758	CA-SBR-8220	Prehistoric	Lithic Deposit	I
1759	CA-SBR-8221	Prehistoric	Temporary Camp	U
1760	CA-SBR-8222	Prehistoric	Lithic Deposit	I
1761	CA-SBR-8223	Prehistoric	Lithic Deposit	U
1762	CA-SBR-8224	Prehistoric	Lithic Deposit	I
1763	CA-SBR-8225	Prehistoric	Lithic Deposit	U
1764	CA-KER-4375H	Historic	Historic Period Refuse Deposit	U
1765	CA-KER-4435	Prehistoric	Lithic Deposit	U
1766	CA-KER-4443	Prehistoric	Lithic Deposit	U
1767	CA-KER-4580	Prehistoric	Lithic Deposit	U
1768	CA-KER-5148	Prehistoric	Temporary Camp	I
1769	CA-KER-5149	Prehistoric	Lithic Deposit	U
1770	CA-KER-5150	Prehistoric	Lithic Deposit	U
1771	CA-KER-5151	Prehistoric	Temporary Camp	U
1772	CA-KER-4512	Prehistoric	Temporary Camp	U
1773	CA-LAN-2380	Prehistoric	Lithic Deposit	U
1774	CA-SBR-8155	Prehistoric	Temporary Camp	I
1775	CA-SBR-8156	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1776	CA-SBR-8157	Prehistoric	Temporary Camp	I
1777	CA-SBR-8158	Prehistoric	Temporary Camp	I
1778	CA-SBR-8159	Prehistoric	Lithic Deposit	I
1779	CA-SBR-8161	Prehistoric	Lithic Deposit	U
1780	CA-SBR-8162H	Historic	Mine, Open Pit	U
1781	CA-SBR-8163H	Historic	Mine Related	U
1782	CA-SBR-8164	Prehistoric	Lithic Deposit	U
1783	CA-SBR-8166H	Historic	Mine, Open Pit	U
1784	CA-SBR-8167H	Historic	Mine, Developed Shaft	U
1785	CA-SBR-8168H	Historic	Historic Period Rock Feature	U
1786	CA-KER-4464	Prehistoric	Milling Station – Portable Metate or Mortar	I
1787	CA-KER-4442H	Military	Survey Marker/Site	U
1788	CA-SBR-8169H	Historic	Mine, Prospect	U
1789	CA-SBR-8170H	Historic	Mine Related	U
1790	CA-SBR-8171H	Historic	Mine Related	U
1791	CA-SBR-8173H	Historic	Mine, Camp/Occupation	U
1792	CA-SBR-8174H	Historic	Mine, Camp/Occupation	U
1793	CA-SBR-8175H	Historic	Mine, Camp/Occupation	U
1794	CA-SBR-8176	Prehistoric	Lithic Deposit	I
1795	CA-SBR-8177	Prehistoric	Lithic Deposit	I
1796	CA-SBR-8178H	Military	Inactive Building/Facility – Foundation/Ruins	U
1797	CA-SBR-8179H	Historic	Historic Period Refuse Deposit	U
1798	CA-SBR-8180	Prehistoric	Lithic Deposit	U
1799	CA-SBR-8182H	Historic	Historic Period Refuse Deposit	U
1800	CA-SBR-8183	Prehistoric	Lithic Deposit	U
1801	CA-SBR-8184	Prehistoric	Lithic Deposit	I
1802	CA-KER-4513	Prehistoric	Temporary Camp	U
1803	CA-KER-4514H	Historic	Homesite/Homestead	U
1804	CA-KER-4515H	Historic	Historic Period Rock Feature – Cairn	U
1805	CA-KER-4516H	Historic	Historic Period Rock Feature – Cairn	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1806	CA-KER-4517H	Historic	Historic Period Refuse Deposit	U
1807	CA-KER-4518	Prehistoric	Lithic Deposit	U
1808	CA-KER-4519	Prehistoric	Hearth/Roasting Pit	U
1809	CA-KER-4520	Prehistoric	Lithic Deposit	U
1810	CA-KER-5320	Prehistoric	Lithic Deposit	U
1811	CA-KER-5321	Prehistoric	Hearth/Roasting Pit	U
1812	CA-SBR-8148H	Historic	Mine, Claim	U
1813	CA-SBR-8149H	Historic	Mine, Claim	U
1814	CA-SBR-8231H	Historic	Mine, Claim	U
1815	CA-SBR-8304	Prehistoric	Lithic Deposit	I
1816	CA-SBR-8305	Prehistoric	Lithic Deposit	U
1817	CA-KER-4368	Prehistoric	Temporary Camp	I
1818	CA-KER-4369	Prehistoric	Temporary Camp	U
1819	CA-KER-4370H	Historic	Mine, Developed Shaft	U
1820	CA-KER-4371	Prehistoric	Temporary Camp	U
1821	CA-KER-4372H	Historic	Mine, Prospect	U
1822	CA-KER-4441H	Military	Inactive Building/Facility – Foundation/Ruins	U
1823	CA-KER-4478H	Military	Inactive Building/Facility – Foundation/Ruins	U
1824	CA-KER-4440H	Military	Inactive Building/Facility – Foundation/Ruins	U
1825	CA-KER-4438	Prehistoric	Lithic Deposit	U
1826	CA-SBR-8306	Prehistoric	Temporary Camp	I
1827	CA-SBR-8199H	Military	Inactive Building/Facility – Foundation/Ruins	U
1828	CA-SBR-8197	Prehistoric	Temporary Camp	I
1829	CA-SBR-8181H	Historic	Mine, Claim	U
1830	CA-SBR-8172H	Historic	Historic Period Rock Feature – Circle	U
1831	CA-SBR-8160	Prehistoric	Temporary Camp	I
1832	CA-SBR-8165	Prehistoric	Lithic Deposit	U
1833	CA-SBR-8150H	Historic	Mine Related	U
1834	CA-SBR-8151H	Historic	Mine Related	U
1835	CA-KER-4437H	Military	Inactive Building/Facility – Foundation/Ruins	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1836	CA-SBR-8196	Prehistoric	Temporary Camp	U
1837	CA-SBR-8219	Prehistoric	Lithic Deposit	U
1838	CA-SBR-8195	Prehistoric	Lithic Deposit	U
1839	CA-KER-4481	Prehistoric	Lithic Deposit	U
1840	CA-SBR-8198	Prehistoric	Temporary Camp	U
1841	CA-KER-4428H	Historic	Historic Period Refuse Deposit	U
1842	CA-SBR-8227	Prehistoric	Lithic Deposit	U
1843	CA-SBR-8228	Prehistoric	Lithic Deposit	U
1844	CA-SBR-8229	Prehistoric	Lithic Deposit	U
1845	CA-SBR-8230	Prehistoric	Lithic Deposit	U
1846	CA-KER-4439	Prehistoric	Lithic Deposit	U
1847	CA-KER-4479	Prehistoric	Lithic Deposit	U
1848	CA-KER-4480	Prehistoric	Lithic Deposit	U
1849	CA-KER-4429H	Historic	Historic Period Refuse Deposit	U
1850	CA-SBR-8304	Prehistoric	Lithic Deposit	U
1851	CA-KER-4364H	Historic	Historic Period Refuse Deposit	U
1852	CA-KER-4365	Prehistoric	Temporary Camp	U
1853	CA-KER-4366H	Historic	Historic Period Refuse Deposit	U
1854	CA-SBR-8216	Prehistoric	Lithic Deposit	I
1855	CA-SBR-8217H	Historic	Mine, Claim	U
1856	CA-SBR-8232	Prehistoric	Lithic Deposit	I
1857	CA-SBR-8233/H	Prehistoric	Lithic Deposit	U
1858	CA-SBR-8233/H	Historic	Historic Period Refuse Deposit	U
1859	CA-SBR-8234	Prehistoric	Temporary Camp	U
1860	CA-SBR-8235H	Historic	Mine, Camp/Occupation	U
1861	CA-SBR-8236H	Historic	Mine, Claim	U
1862	CA-KER-5322	Prehistoric	Lithic Deposit	U
1863	CA-SBR-8237H	Historic	Mine, Claim	U
1864	CA-KER-4388	Prehistoric	Lithic Deposit	U
1865	CA-KER-4460	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1866	CA-KER-4461	Prehistoric	Temporary Camp	U
1867	CA-KER-4462	Prehistoric	Lithic Deposit	U
1868	CA-SBR-8244	Prehistoric	Temporary Camp	U
1869	CA-KER-4556	Prehistoric	Lithic Deposit	I
1870	CA-KER-4552	Prehistoric	Lithic Deposit	I
1871	CA-KER-4323	Prehistoric	Temporary Camp	U
1872	CA-KER-4553H	Historic	Historic Period Refuse Deposit	U
1873	CA-KER-4436H	Military	Inactive Building/Facility – Foundation/Ruins	U
1874	CA-KER-4557	Prehistoric	Hearth/Roasting Pit	I
1875	CA-KER-4555	Prehistoric	Lithic Deposit	I
1876	CA-KER-4558	Prehistoric	Hearth/Roasting Pit	I
1877	CA-KER-4554	Prehistoric	Temporary Camp	I
1878	CA-SBR-8240	Prehistoric	Lithic Deposit	U
1879	CA-SBR-8239	Prehistoric	Lithic Deposit	U
1880	CA-SBR-8238	Prehistoric	Lithic Deposit	U
1881	CA-KER-4563	Prehistoric	Lithic Deposit	I
1882	CA-KER-4569	Prehistoric	Lithic Deposit	I
1883	CA-KER-4570	Prehistoric	Lithic Deposit	I
1884	CA-KER-4573	Prehistoric	Temporary Camp	U
1885	CA-KER-4571	Prehistoric	Temporary Camp	I
1886	CA-KER-4589	Prehistoric	Lithic Deposit	U
1887	CA-KER-4588	Prehistoric	Lithic Deposit	U
1888	CA-KER-4572	Prehistoric	Lithic Deposit	U
1889	CA-SBR-8307	Prehistoric	Lithic Deposit	U
1890	CA-SBR-8241/H	Prehistoric	Lithic Deposit	U
1891	CA-SBR-8308	Prehistoric	Temporary Camp	U
1892	CA-KER-4586	Prehistoric	Temporary Camp	U
1893	CA-KER-5312	Prehistoric	Lithic Deposit	U
1894	CA-KER-4587	Prehistoric	Lithic Deposit	U
1895	CA-SBR-8210H	Historic	Mine, Claim	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1896	CA-SBR-8211H	Historic	Mine, Prospect	U
1897	CA-SBR-8212H	Historic	Mine, Prospect	U
1898	CA-SBR-8213H	Historic	Mine, Prospect	U
1899	CA-SBR-8214H	Historic	Mine, Claim	U
1900	CA-KER-4564	Prehistoric	Lithic Deposit	I
1901	CA-SBR-8200/H	Prehistoric	Lithic Deposit	U
1902	CA-SBR-8201H	Historic	Mine, Prospect	U
1903	CA-SBR-8202	Prehistoric	Lithic Deposit	U
1904	CA-SBR-8203H	Historic	Mine, Camp/Occupation	U
1905	CA-SBR-8204	Prehistoric	Temporary Camp	I
1906	CA-SBR-8206H	Historic	Mine, Claim	U
1907	CA-SBR-8207H	Historic	Mine, Claim	U
1908	CA-SBR-8208H	Historic	Mine, Claim	U
1909	CA-SBR-8209H	Historic	Mine, Prospect	U
1910	CA-SBR-8242H	Historic	Mine, Claim	U
1911	CA-SBR-8243H	Historic	Mine, Claim	U
1912	CA-KER-4605	Prehistoric	Lithic Deposit	U
1913	CA-KER-4562	Prehistoric	Temporary Camp	I
1914	CA-KER-4561	Prehistoric	Temporary Camp	I
1915	CA-KER-4560	Prehistoric	Lithic Deposit	I
1916	CA-KER-4559	Prehistoric	Lithic Deposit	I
1917	CA-SBR-8215H	Historic	Mine, Claim	U
1919	CA-KER-4397	Prehistoric	Milling Station – Bedrock Milling Slick	I
1920	CA-KER-4400	Prehistoric	Temporary Camp	I
1921	CA-KER-4401	Prehistoric	Hearth/Roasting Pit	I
1922	CA-KER-4402	Prehistoric	Milling Station – Bedrock Mortar	I
1923	CA-KER-4403	Prehistoric	Milling Station – Bedrock Milling Slick	I
1924	CA-KER-4396H	Historic	Mine, Prospect	U
1925	CA-KER-4398	Prehistoric	Hearth/Roasting Pit	U
1926	CA-KER-4399	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1927	CA-KER-4404	Prehistoric	Hearth/Roasting Pit	I
1929	CA-KER-4392	Prehistoric	Hearth/Roasting Pit	I
1930	CA-KER-4393	Prehistoric	Hearth/Roasting Pit	I
1931	CA-KER-4394	Prehistoric	Hearth/Roasting Pit	I
1932	CA-KER-4574	Prehistoric	Temporary Camp	U
1933	CA-SBR-9506	Prehistoric	Temporary Camp	U
1934	CA-KER-4575	Prehistoric	Temporary Camp	U
1935	CA-KER-4576	Prehistoric	Lithic Deposit	U
1936	CA-KER-4577	Prehistoric	Lithic Deposit	U
1937	CA-KER-4578H	Historic	Historic Period Refuse Deposit	U
1938	CA-SBR-9507	Prehistoric	Temporary Camp	E
1939	CA-KER-4610	Prehistoric	Temporary Camp	I
1940	CA-KER-4625H	Historic	Historic Period Refuse Deposit	U
1941	CA-KER-4626	Prehistoric	Lithic Deposit	U
1942	CA-KER-4627	Prehistoric	Temporary Camp	U
1943	CA-KER-4628	Prehistoric	Lithic Deposit	U
1944	CA-KER-4646	Prehistoric	Lithic Deposit	I
1945	CA-KER-4647	Prehistoric	Lithic Deposit	I
1946	CA-KER-4608	Prehistoric	Lithic Deposit	U
1947	CA-KER-4609H	Military	Inactive Building/Facility – Foundation/Ruins	U
1948	CA-KER-4565	Prehistoric	Temporary Camp	I
1949	CA-KER-4566	Prehistoric	Lithic Deposit	I
1950	CA-KER-4567	Prehistoric	Temporary Camp	I
1951	CA-SBR-9508	Prehistoric	Lithic Deposit	U
1952	CA-KER-4607	Prehistoric	Temporary Camp	U
1953	CA-KER-4596	Prehistoric	Lithic Deposit	U
1954	CA-KER-5421	Prehistoric	Lithic Deposit	U
1955	CA-KER-5422H	Historic	Historic Period Refuse Deposit	U
1956	CA-KER-4645H	Historic	Historic Period Refuse Deposit	U
1957	CA-SBR-8205H	Historic	Historic Period Refuse Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1958	CA-KER-4606	Prehistoric	Temporary Camp	U
1959	CA-KER-5283	Prehistoric	Lithic Deposit	U
1960	CA-KER-4433	Prehistoric	Hearth/Roasting Pit	I
1961	CA-KER-4432H	Historic	Mine, Prospect	I
1962	CA-KER-4431H	Historic	Mine, Prospect	I
1963	CA-KER-5524H	Historic	Historic Period Refuse Deposit	I
1964	CA-KER-5289H	Historic	Agricultural Feature, Well	U
1965	CA-KER-4599	Prehistoric	Temporary Camp	U
1966	CA-KER-4581	Prehistoric	Lithic Deposit	U
1967	CA-KER-4662H	Historic	Historic Period Refuse Deposit	U
1968	CA-KER-4633	Prehistoric	Lithic Deposit	I
1969	CA-KER-4634	Prehistoric	Lithic Deposit	I
1970	CA-KER-4648	Prehistoric	Lithic Deposit	I
1971	CA-KER-4568H	Historic	Historic Period Refuse Deposit	U
1973	CA-KER-4649	Prehistoric	Lithic Deposit	U
1974	CA-KER-4650	Prehistoric	Hearth/Roasting Pit	I
1975	CA-KER-4629	Prehistoric	Temporary Camp	U
1976	CA-KER-4630	Prehistoric	Temporary Camp	U
1977	CA-KER-4631H	Military	Inactive Building/Facility – Foundation/Ruins	U
1978	CA-KER-4632	Prehistoric	Lithic Deposit	U
1979	CA-KER-4457	Prehistoric	Temporary Camp	U
1980	CA-KER-4488	Prehistoric	Temporary Camp	U
1981	CA-KER-4511	Prehistoric	Milling Station – Bedrock Milling Slick	U
1982	CA-KER-4434	Prehistoric	Milling Station – Portable Metate or Mortar	U
1983	CA-KER-4471H	Historic	Historic Period Refuse Deposit	U
1984	CA-KER-4472H	Historic	Historic Period Refuse Deposit	E
1985	CA-KER-4473	Prehistoric	Lithic Deposit	U
1986	CA-KER-4474H	Historic	Historic Period Refuse Deposit	I
1987	CA-KER-4475	Prehistoric	Lithic Deposit	I
1988	CA-KER-4476/H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
1989	CA-KER-4635	Prehistoric	Lithic Deposit	U
1990	CA-KER-4636	Prehistoric	Hearth/Roasting Pit	U
1991	CA-KER-4600	Prehistoric	Base Camp/Village	I
1992	CA-KER-4601	Prehistoric	Hearth/Roasting Pit	U
1993	CA-KER-4653	Prehistoric	Temporary Camp	I
1994	CA-KER-4654H	Historic	Historic Period Refuse Deposit	U
1995	CA-KER-4655	Prehistoric	Temporary Camp	I
1996	CA-KER-4656	Prehistoric	Temporary Camp	I
1997	CA-KER-4657	Prehistoric	Lithic Deposit	U
1998	CA-KER-4658	Prehistoric	Temporary Camp	U
1999	CA-KER-4659H	Historic	Historic Period Rock Feature	U
2000	CA-KER-4663	Prehistoric	Lithic Deposit	U
2001	CA-KER-4664H	Historic	Historic Period Refuse Deposit	U
2002	CA-KER-4665	Prehistoric	Hearth/Roasting Pit	U
2003	CA-KER-4666	Prehistoric	Lithic Deposit	U
2004	CA-KER-4667	Prehistoric	Lithic Deposit	U
2005	CA-KER-4668	Prehistoric	Lithic Deposit	U
2006	CA-KER-5290H	Historic	Historic Period Refuse Deposit	U
2007	CA-KER-4673H	Historic	Historic Period Refuse Deposit	U
2008	CA-KER-4674	Prehistoric	Lithic Deposit	U
2009	CA-KER-4675	Prehistoric	Lithic Deposit	U
2010	CA-KER-4676	Prehistoric	Lithic Deposit	U
2011	CA-KER-4677	Prehistoric	Temporary Camp	U
2012	CA-KER-4678H	Historic	Historic Period Refuse Deposit	U
2013	CA-KER-4679	Prehistoric	Lithic Deposit	U
2014	CA-KER-4680	Prehistoric	Temporary Camp	U
2015	CA-KER-4681	Prehistoric	Lithic Deposit	U
2016	CA-KER-4682	Prehistoric	Temporary Camp	U
2017	CA-KER-4683	Prehistoric	Lithic Deposit	U
2018	CA-KER-4684	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2019	CA-KER-4685	Prehistoric	Temporary Camp	I
2020	CA-KER-4686	Prehistoric	Lithic Deposit	I
2021	CA-LAN-2397	Prehistoric	Temporary Camp	U
2022	CA-LAN-2398	Prehistoric	Temporary Camp	U
2023	CA-LAN-2399	Prehistoric	Temporary Camp	U
2024	CA-KER-4652H	Historic	Historic Period Refuse Deposit	U
2025	CA-KER-4602	Prehistoric	Temporary Camp	I
2026	CA-KER-4603H	Historic	Mine, Claim	U
2027	CA-KER-4661	Prehistoric	Temporary Camp	I
2028	CA-KER-4482H	Historic	Historic Period Refuse Deposit	U
2029	CA-KER-4482H	Historic	Historic Period Refuse Deposit	U
2030	CA-KER-4660	Prehistoric	Lithic Deposit	U
2031	CA-KER-4582	Prehistoric	Lithic Deposit	U
2032	CA-KER-4651	Prehistoric	Lithic Deposit	I
2033	CA-KER-4669	Prehistoric	Lithic Deposit	U
2034	CA-KER-4670	Prehistoric	Lithic Deposit	U
2035	CA-KER-4671	Prehistoric	Lithic Deposit	U
2036	CA-KER-4687	Prehistoric	Lithic Deposit	U
2037	CA-KER-4688	Prehistoric	Temporary Camp	U
2038	CA-KER-4689H	Historic	Historic Period Refuse Deposit	U
2039	CA-KER-4690H	Historic	Survey Marker/Site	U
2040	CA-KER-4691	Prehistoric	Temporary Camp	U
2041	CA-KER-4692	Prehistoric	Lithic Deposit	U
2042	CA-KER-4696	Prehistoric	Temporary Camp	U
2043	CA-KER-4697	Prehistoric	Temporary Camp	U
2044	CA-KER-4698	Prehistoric	Temporary Camp	U
2045	CA-KER-4699	Prehistoric	Lithic Deposit	U
2046	CA-KER-4700H	Historic	Historic Period Refuse Deposit	U
2047	CA-KER-4701	Prehistoric	Lithic Deposit	U
2048	CA-KER-4702H	Military	Inactive Building/Facility – Foundation/Ruins	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2049	CA-KER-4703	Prehistoric	Temporary Camp	U
2050	CA-KER-4704	Prehistoric	Lithic Deposit	U
2051	CA-KER-4705	Prehistoric	Lithic Deposit	U
2052	CA-KER-4706	Prehistoric	Lithic Deposit	U
2053	CA-KER-4707	Prehistoric	Temporary Camp	U
2054	CA-KER-4708H	Historic	Historic Period Refuse Deposit	U
2055	CA-KER-4709	Prehistoric	Lithic Deposit	U
2056	CA-KER-4710	Prehistoric	Temporary Camp	U
2057	CA-KER-5287	Prehistoric	Lithic Deposit	U
2058	CA-KER-4711	Prehistoric	Lithic Deposit	U
2059	CA-KER-4712	Prehistoric	Temporary Camp	U
2060	CA-KER-4643	Prehistoric	Lithic Deposit	U
2061	CA-KER-4640	Prehistoric	Lithic Deposit	I
2062	CA-KER-4639H	Historic	Historic Period Refuse Deposit	U
2063	CA-KER-4637	Prehistoric	Temporary Camp	U
2064	CA-KER-4638	Prehistoric	Temporary Camp	U
2065	CA-KER-4642H	Historic	Historic Period Refuse Deposit	U
2066	CA-KER-4641	Prehistoric	Lithic Deposit	U
2067	CA-KER-4714H	Historic	Historic Period Refuse Deposit	U
2068	CA-KER-4644	Prehistoric	Temporary Camp	I
2069	CA-KER-4713	Prehistoric	Temporary Camp	U
2070	CA-KER-4685	Prehistoric	Lithic Deposit	U
2071	CA-KER-4680	Prehistoric	Lithic Deposit	U
2072	CA-LAN-2640H	Historic	Historic Period Refuse Deposit	U
2074	CA-KER-4477	Prehistoric	Temporary Camp	I
2075	CA-KER-4715	Prehistoric	Lithic Deposit	U
2076	CA-KER-4604	Prehistoric	Temporary Camp	U
2077	CA-KER-4716H	Military	Inactive Building/Facility – Foundation/Ruins	U
2078	CA-KER-4717H	Historic	Historic Period Refuse Deposit	U
2079	CA-KER-4718H	Military	Inactive Building/Facility – Foundation/Ruins	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2080	CA-KER-4719	Prehistoric	Temporary Camp	U
2081	CA-KER-4722	Prehistoric	Milling Station – Bedrock Mortar	U
2082	CA-KER-4579	Prehistoric	Temporary Camp	U
2083	CA-LAN-2390H	Historic	Historic Period Refuse Deposit	U
2084	CA-KER-4529	Prehistoric	Lithic Deposit	U
2085	CA-KER-4531/H	Historic	Historic Period Refuse Deposit	U
2086	CA-KER-4532	Prehistoric	Lithic Deposit	U
2087	CA-KER-4533	Prehistoric	Temporary Camp	U
2088	CA-KER-4534H	Historic	Historic Period Refuse Deposit	U
2089	CA-KER-4530/H	Historic	Historic Period Refuse Deposit	U
2090	CA-KER-4720	Prehistoric	Temporary Camp	U
2091	CA-LAN-2641H	Historic	Historic Period Refuse Deposit	U
2092	CA-KER-4535H	Historic	Historic Period Refuse Deposit	U
2093	CA-KER-4530/H	Prehistoric	Temporary Camp	U
2094	CA-KER-4484H	Historic	Historic Period Refuse Deposit	U
2095	CA-KER-4486H	Historic	Mine, Prospect	U
2096	CA-KER-4485	Prehistoric	Quarry/Lithic Source – Exploited Bedrock Source	U
2097	CA-KER-4466	Prehistoric	Temporary Camp	I
2098	CA-KER-4721H	Historic	Historic Period Refuse Deposit	U
2099	CA-SBR-8226	Prehistoric	Lithic Deposit	I
2100	CA-SBR-8200/H	Historic	Historic Period Refuse Deposit	I
2101	CA-SBR-8402H	Military	Inactive Building/Facility – Target, PB-6	U
2102	CA-KER-4672H	Military	Inactive Building/Facility – Target, PB-4	U
2103	CA-KER-4536H	Historic	Mine, Open Pit	U
2104	CA-KER-4542	Prehistoric	Temporary Camp	I
2105	CA-KER-4547	Prehistoric	Temporary Camp	U
2106	CA-KER-4548	Prehistoric	Temporary Camp	U
2107	CA-KER-4543	Prehistoric	Temporary Camp	U
2108	CA-KER-4544	Prehistoric	Lithic Deposit	U
2109	CA-KER-4549H	Historic	Historic Period Refuse Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2110	CA-KER-4545H	Historic	Historic Period Refuse Deposit	U
2111	CA-KER-4546	Prehistoric	Hearth/Roasting Pit	U
2112	CA-KER-4550H	Historic	Historic Period Refuse Deposit	I
2113	CA-KER-4541	Prehistoric	Lithic Deposit	I
2114	CA-KER-4537H	Historic	Historic Period Refuse Deposit	U
2115	CA-KER-4538H	Historic	Historic Period Refuse Deposit	U
2116	CA-KER-4539H	Historic	Historic Period Refuse Deposit	U
2117	CA-KER-4540H	Historic	Historic Period Refuse Deposit	U
2118	CA-KER-4723	Prehistoric	Lithic Deposit	U
2119	CA-KER-4725	Prehistoric	Temporary Camp	U
2120	CA-KER-4724	Prehistoric	Lithic Deposit	U
2121	CA-KER-4726	Prehistoric	Temporary Camp	U
2122	CA-KER-4727	Prehistoric	Hearth/Roasting Pit	U
2123	CA-KER-6222	Prehistoric	Temporary Camp	U
2124	CA-KER-4729	Prehistoric	Lithic Deposit	U
2125	CA-KER-4730	Prehistoric	Temporary Camp	U
2126	CA-KER-4731	Prehistoric	Temporary Camp	U
2128	CA-KER-4757H	Historic	Historic Period Refuse Deposit	U
2129	CA-LAN-2628H	Historic	Historic Period Refuse Deposit	U
2130	CA-LAN-2420	Prehistoric	Lithic Deposit	U
2131	CA-LAN-2421	Prehistoric	Lithic Deposit	U
2132	CA-LAN-2422	Prehistoric	Temporary Camp	U
2133	CA-LAN-2423	Prehistoric	Lithic Deposit	U
2134	CA-LAN-2424H	Historic	Historic Period Refuse Deposit	U
2135	CA-LAN-2425H	Historic	Historic Period Refuse Deposit	U
2136	CA-LAN-2426H	Historic	Historic Period Refuse Deposit	U
2137	CA-LAN-2427	Prehistoric	Temporary Camp	U
2138	CA-LAN-2428H	Historic	Historic Period Refuse Deposit	U
2139	CA-LAN-2429	Prehistoric	Lithic Deposit	U
2140	CA-LAN-2430H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2141	CA-LAN-2431H	Historic	Historic Period Refuse Deposit	U
2142	CA-LAN-2441	Prehistoric	Lithic Deposit	U
2143	CA-LAN-2440	Prehistoric	Temporary Camp	U
2144	CA-LAN-2442	Prehistoric	Temporary Camp	U
2145	CA-LAN-2432	Prehistoric	Lithic Deposit	U
2146	CA-LAN-2433	Prehistoric	Temporary Camp	U
2147	CA-LAN-2443	Prehistoric	Lithic Deposit	U
2148	CA-LAN-2444	Prehistoric	Temporary Camp	U
2149	CA-LAN-2434H	Historic	Historic Period Refuse Deposit	U
2150	CA-LAN-2435H	Historic	Historic Period Refuse Deposit	U
2151	CA-LAN-2436H	Historic	Historic Period Refuse Deposit	U
2152	CA-LAN-2437H	Historic	Historic Period Refuse Deposit	U
2153	CA-LAN-2438H	Historic	Historic Period Refuse Deposit	U
2154	CA-KER-4811	Prehistoric	Lithic Deposit	U
2155	CA-KER-4812H	Historic	Historic Period Refuse Deposit	I
2156	CA-KER-4813	Prehistoric	Lithic Deposit	I
2157	CA-KER-4752	Prehistoric	Temporary Camp	I
2158	CA-KER-4753	Prehistoric	Temporary Camp	U
2159	CA-KER-4754	Prehistoric	Temporary Camp	U
2160	CA-KER-4755H	Military	Inactive Building/Facility – Target	U
2161	CA-LAN-2447H	Historic	Historic Period Refuse Deposit	U
2162	CA-LAN-2439H	Historic	Agricultural Feature, Well	U
2163	CA-LAN-2446H	Historic	Historic Period Refuse Deposit	U
2164	CA-LAN-2516	Prehistoric	Temporary Camp	U
2165	CA-LAN-2518	Prehistoric	Temporary Camp	U
2166	CA-LAN-2517	Prehistoric	Temporary Camp	U
2167	CA-LAN-2507H	Historic	Historic Period Refuse Deposit	U
2168	CA-LAN-2506	Prehistoric	Temporary Camp	U
2169	CA-LAN-2505H	Historic	Historic Period Refuse Deposit	U
2170	CA-LAN-2504	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2171	CA-LAN-2503	Prehistoric	Lithic Deposit	U
2172	CA-LAN-2502	Prehistoric	Temporary Camp	U
2173	CA-LAN-2501	Prehistoric	Temporary Camp	U
2174	CA-LAN-2500H	Historic	Historic Period Refuse Deposit	U
2175	CA-LAN-2499	Prehistoric	Temporary Camp	U
2176	CA-LAN-2498H	Historic	Historic Period Refuse Deposit	U
2177	CA-LAN-2497	Prehistoric	Lithic Deposit	U
2178	CA-LAN-2496	Prehistoric	Lithic Deposit	U
2179	CA-LAN-2495	Prehistoric	Lithic Deposit	U
2180	CA-LAN-2494	Prehistoric	Temporary Camp	U
2181	CA-LAN-2493	Prehistoric	Lithic Deposit	U
2182	CA-LAN-2492	Prehistoric	Temporary Camp	U
2183	CA-LAN-2491H	Historic	Historic Period Refuse Deposit	U
2184	CA-LAN-2490	Prehistoric	Milling Station – Portable Metate or Mortar	U
2185	CA-LAN-2489	Prehistoric	Temporary Camp	U
2186	CA-LAN-2488H	Historic	Historic Period Refuse Deposit	U
2187	CA-LAN-2487H	Historic	Historic Period Refuse Deposit	U
2188	CA-KER-4756H	Historic	Historic Period Refuse Deposit	U
2191	CA-KER-4933	Prehistoric	Hearth/Roasting Pit	U
2192	CA-KER-4934H	Historic	Historic Period Refuse Deposit	U
2193	CA-KER-4935	Prehistoric	Hearth/Roasting Pit	U
2194	CA-KER-4936H	Historic	Historic Period Refuse Deposit	U
2195	CA-KER-4937H	Historic	Historic Period Refuse Deposit	U
2196	CA-KER-4938H	Historic	Mine, Prospect	U
2197	CA-KER-4939	Prehistoric	Hearth/Roasting Pit	U
2198	CA-KER-4940	Prehistoric	Prehistoric Rock Alignments/Features – Rock Rings	U
2199	CA-KER-4941	Prehistoric	Temporary Camp	U
2200	CA-KER-4942	Prehistoric	Hearth/Roasting Pit	U
2201	CA-KER-4943H	Historic	Mine, Prospect	U
2202	CA-KER-4944H	Historic	Mine, Developed Shaft	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2203	CA-KER-4945H	Historic	Historic Period Refuse Deposit	U
2204	CA-KER-4946H	Historic	Historic Period Rock Feature – Walls and Hearth	U
2205	CA-KER-4947H	Historic	Historic Period Refuse Deposit	U
2206	CA-KER-4948H	Historic	Historic Period Rock Feature – Wall	U
2207	CA-KER-4949H	Historic	Mine, Prospect	U
2208	CA-KER-4950H	Historic	Historic Period Rock Feature – Cairn	U
2209	CA-KER-4951	Prehistoric	Hearth/Roasting Pit	U
2210	CA-KER-4966	Prehistoric	Hearth/Roasting Pit	U
2211	CA-KER-4967H	Historic	Historic Period Refuse Deposit	U
2212	CA-KER-4968H	Historic	Historic Period Refuse Deposit	U
2213	CA-KER-5628H	Historic	Historic Period Refuse Deposit	U
2214	CA-KER-4969H	Historic	Agricultural Feature, Berms	U
2215	CA-KER-4970H	Historic	Agricultural Feature, Berms	U
2216	CA-KER-4971H	Historic	Historic Period Refuse Deposit	U
2217	CA-KER-4972H	Historic	Historic Period Refuse Deposit	U
2218	CA-KER-4973	Prehistoric	Lithic Deposit	U
2219	CA-KER-4974H	Historic	Mine, Drilling Site	U
2220	CA-KER-4981H	Historic	Historic Period Refuse Deposit	U
2221	CA-KER-4982H	Historic	Historic Period Refuse Deposit	U
2222	CA-KER-4983H	Historic	Ranching Feature – Corral	U
2223	CA-KER-4975	Prehistoric	Lithic Deposit	U
2224	CA-KER-4770	Prehistoric	Temporary Camp	U
2225	CA-KER-4771H	Historic	Historic Period Refuse Deposit	U
2226	CA-KER-4772	Prehistoric	Temporary Camp	U
2227	CA-KER-4796	Prehistoric	Hearth/Roasting Pit	U
2240	CA-KER-2284/H	Prehistoric	Temporary Camp	U
2241	CA-KER-5784	Prehistoric	Lithic Deposit	U
2242	CA-KER-4902H	Historic	Historic Period Refuse Deposit	U
2243	CA-KER-4826	Prehistoric	Temporary Camp	U
2244	CA-KER-4815	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2245	CA-KER-4790H	Historic	Historic Period Refuse Deposit	U
2246	CA-KER-5179H	Historic	Historic Period Refuse Deposit	U
2247	CA-KER-4791	Prehistoric	Lithic Deposit	U
2248	CA-KER-4827	Prehistoric	Lithic Deposit	U
2249	CA-KER-4792	Prehistoric	Temporary Camp	U
2250	CA-KER-4214	Prehistoric	Lithic Deposit	U
2251	CA-KER-4583	Prehistoric	Lithic Deposit	U
2252	CA-KER-4828	Prehistoric	Lithic Deposit	U
2253	CA-KER-4829	Prehistoric	Temporary Camp	U
2254	CA-KER-4584	Prehistoric	Lithic Deposit	U
2255	CA-KER-4793	Prehistoric	Lithic Deposit	U
2256	CA-KER-5162	Prehistoric	Lithic Deposit	U
2257	CA-KER-4832	Prehistoric	Temporary Camp	U
2258	CA-KER-4825	Prehistoric	Temporary Camp	U
2259	CA-KER-4816	Prehistoric	Temporary Camp	U
2260	CA-KER-4830H	Historic	Historic Period Refuse Deposit	U
2261	CA-KER-4585	Prehistoric	Temporary Camp	U
2262	CA-KER-4817	Prehistoric	Temporary Camp	U
2263	CA-KER-4818	Prehistoric	Lithic Deposit	U
2264	CA-KER-4819	Prehistoric	Hearth/Roasting Pit	U
2265	CA-KER-4820	Prehistoric	Milling Station – Portable Metate or Mortar	U
2266	CA-LAN-2512H	Historic	Historic Period Refuse Deposit	U
2267	CA-LAN-2511	Prehistoric	Temporary Camp	U
2268	CA-LAN-2510	Prehistoric	Temporary Camp	U
2269	CA-LAN-2509H	Historic	Historic Period Refuse Deposit	U
2270	CA-LAN-2526	Prehistoric	Lithic Deposit	U
2271	CA-LAN-2508	Prehistoric	Temporary Camp	U
2272	CA-LAN-2528H	Historic	Historic Period Refuse Deposit	U
2273	CA-LAN-2527	Prehistoric	Temporary Camp	U
2274	CA-LAN-2515H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2275	CA-LAN-2522H	Historic	Historic Period Refuse Deposit	U
2276	CA-LAN-2523	Prehistoric	Lithic Deposit	U
2277	CA-LAN-2524	Prehistoric	Lithic Deposit	U
2278	CA-LAN-2525H	Historic	Historic Period Refuse Deposit	U
2279	CA-LAN-2513H	Historic	Historic Period Refuse Deposit	U
2280	CA-LAN-2514	Prehistoric	Temporary Camp	U
2281	CA-KER-4993	Prehistoric	Temporary Camp	U
2282	CA-KER-4994	Prehistoric	Lithic Deposit	U
2283	CA-KER-4995	Prehistoric	Temporary Camp	U
2284	CA-KER-4996	Prehistoric	Lithic Deposit	U
2285	CA-KER-4997	Prehistoric	Lithic Deposit	U
2286	CA-KER-4998	Prehistoric	Lithic Deposit	U
2287	CA-KER-4989	Prehistoric	Hearth/Roasting Pit	U
2288	CA-KER-4990	Prehistoric	Lithic Deposit	U
2289	CA-KER-4984H	Historic	Homesite/Homestead	U
2290	CA-KER-4985	Prehistoric	Lithic Deposit	U
2291	CA-KER-4986H	Historic	Historic Period Refuse Deposit	U
2292	CA-KER-4987H	Historic	Historic Period Refuse Deposit	U
2293	CA-KER-4988H	Historic	Historic Period Refuse Deposit	U
2294	CA-KER-4989H	Historic	Historic Period Refuse Deposit	U
2295	CA-KER-4976	Prehistoric	Temporary Camp	U
2296	CA-KER-4977	Prehistoric	Temporary Camp	U
2297	CA-KER-4978	Prehistoric	Temporary Camp	U
2298	CA-KER-4979H	Historic	Historic Period Refuse Deposit	U
2299	CA-KER-4953	Prehistoric	Hearth/Roasting Pit	U
2300	CA-KER-4954H	Historic	Mine, Prospect	U
2301	CA-KER-4955H	Historic	Historic Period Refuse Deposit	U
2302	CA-KER-4956	Prehistoric	Hearth/Roasting Pit	U
2303	CA-KER-4957	Prehistoric	Milling Station – Bedrock Mortar	U
2304	CA-KER-4958H	Historic	Historic Period Rock Feature – Cairn	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2305	CA-KER-4959	Prehistoric	Hearth/Roasting Pit	U
2306	CA-KER-4964H	Historic	Historic Period Refuse Deposit	U
2307	CA-KER-4965H	Historic	Historic Period Refuse Deposit	U
2308	CA-KER-4991	Prehistoric	Lithic Deposit	U
2309	CA-KER-4992	Prehistoric	Lithic Deposit	U
2310	CA-KER-5168	Prehistoric	Lithic Deposit	U
2311	CA-KER-4960H	Historic	Historic Period Refuse Deposit	U
2312	CA-KER-4961H	Historic	Mine, Claim	U
2313	CA-KER-4962H	Historic	Mine, Prospect	U
2314	CA-KER-4963H	Historic	Historic Period Refuse Deposit	U
2315	CA-KER-4980H	Historic	Homesite/Homestead	U
2316	CA-KER-4821	Prehistoric	Temporary Camp	U
2317	CA-KER-4833H	Historic	Historic Period Refuse Deposit	U
2318	CA-KER-4831H	Historic	Historic Period Refuse Deposit	U
2319	CA-SBR-8847	Prehistoric	Lithic Deposit	U
2320	CA-SBR-8848	Prehistoric	Lithic Deposit	I
2321	CA-SBR-8849	Prehistoric	Lithic Deposit	I
2322	CA-KER-4822	Prehistoric	Lithic Deposit	U
2323	CA-KER-4823	Prehistoric	Temporary Camp	U
2324	CA-KER-4824	Prehistoric	Lithic Deposit	U
2325	CA-KER-4834	Prehistoric	Lithic Deposit	U
2326	CA-KER-4903H	Historic	Mine, Prospect	U
2327	CA-KER-4904	Prehistoric	Hearth/Roasting Pit	U
2328	CA-KER-4905	Prehistoric	Hearth/Roasting Pit	U
2329	CA-KER-4906	Prehistoric	Hearth/Roasting Pit	U
2330	CA-KER-4952	Prehistoric	Lithic Deposit	U
2331	CA-KER-4907	Prehistoric	Hearth/Roasting Pit	U
2332	CA-KER-4908	Prehistoric	Hearth/Roasting Pit	U
2333	CA-KER-4896	Prehistoric	Hearth/Roasting Pit	U
2334	CA-KER-4897	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2335	CA-KER-4898	Prehistoric	Hearth/Roasting Pit	U
2336	CA-KER-4899	Prehistoric	Hearth/Roasting Pit	U
2337	CA-KER-4900	Prehistoric	Hearth/Roasting Pit	U
2338	CA-KER-4901H	Historic	Historic Period Refuse Deposit	U
2339	CA-KER-4917	Prehistoric	Hearth/Roasting Pit	U
2340	CA-KER-4918	Prehistoric	Temporary Camp	U
2341	CA-KER-4919	Prehistoric	Temporary Camp	U
2342	CA-KER-4920	Prehistoric	Milling Station – Bedrock Milling Slick	U
2367	CA-KER-4799	Prehistoric	Temporary Camp	U
2368	CA-KER-4800	Prehistoric	Temporary Camp	U
2369	CA-KER-4801	Prehistoric	Temporary Camp	U
2370	CA-KER-4802	Prehistoric	Lithic Deposit	U
2371	CA-KER-4921	Prehistoric	Lithic Deposit	U
2372	CA-KER-4922	Prehistoric	Lithic Deposit	U
2373	CA-KER-4923	Prehistoric	Temporary Camp	U
2374	CA-KER-4924	Prehistoric	Lithic Deposit	U
2375	CA-KER-4803	Prehistoric	Temporary Camp	U
2376	CA-KER-4804	Prehistoric	Temporary Camp	U
2377	CA-KER-4805	Prehistoric	Temporary Camp	U
2378	CA-KER-4808	Prehistoric	Temporary Camp	U
2379	CA-KER-4807	Prehistoric	Temporary Camp	U
2380	CA-KER-4809	Prehistoric	Temporary Camp	U
2381	CA-KER-4806	Prehistoric	Temporary Camp	U
2382	CA-KER-4810H	Historic	Historic Period Refuse Deposit	U
2383	CA-KER-5042	Prehistoric	Lithic Deposit	I
2384	CA-KER-5021	Prehistoric	Milling Station – Portable Metate or Mortar	U
2385	CA-KER-5022H	Historic	Mine, Prospect	U
2386	CA-KER-5023H	Historic	Mine, Prospect	U
2387	CA-KER-5024H	Historic	Mine, Prospect	U
2388	CA-KER-5028	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2389	CA-KER-5029	Prehistoric	Lithic Deposit	U
2390	CA-KER-5030	Prehistoric	Hearth/Roasting Pit	U
2391	CA-SBR-8850	Prehistoric	Lithic Deposit	U
2392	CA-SBR-8851	Prehistoric	Lithic Deposit	I
2393	CA-SBR-8852	Prehistoric	Temporary Camp	U
2394	CA-SBR-8853	Prehistoric	Hearth/Roasting Pit	I
2395	CA-KER-4999H	Historic	Historic Period Refuse Deposit	U
2396	CA-KER-5000	Prehistoric	Lithic Deposit	U
2397	CA-KER-5001	Prehistoric	Lithic Deposit	U
2398	CA-KER-4925	Prehistoric	Lithic Deposit	U
2399	CA-KER-4926	Prehistoric	Temporary Camp	U
2400	CA-KER-4927H	Historic	Historic Period Refuse Deposit	U
2401	CA-KER-4928H	Historic	Historic Period Refuse Deposit	U
2402	CA-KER-4929	Prehistoric	Temporary Camp	U
2403	CA-KER-4930H	Historic	Historic Period Refuse Deposit	U
2404	CA-KER-5002	Prehistoric	Temporary Camp	U
2405	CA-KER-5003	Prehistoric	Temporary Camp	U
2406	CA-KER-5004	Prehistoric	Lithic Deposit	U
2407	CA-KER-5005	Prehistoric	Lithic Deposit	U
2408	CA-KER-5006H	Historic	Homesite/Homestead	U
2409	CA-KER-5019H	Historic	Mine, Prospect	U
2410	CA-KER-5020H	Historic	Mine, Claim	U
2411	CA-KER-5025H	Historic	Mine, Claim	U
2412	CA-KER-5026H	Historic	Mine, Prospect	U
2413	CA-KER-5027H	Historic	Mine, Prospect	U
2414	CA-KER-5007	Prehistoric	Lithic Deposit	U
2415	CA-KER-5008	Prehistoric	Lithic Deposit	U
2416	CA-KER-5009	Prehistoric	Temporary Camp	P
2417	CA-KER-5010	Prehistoric	Temporary Camp	U
2418	CA-KER-4909	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2419	CA-KER-4910	Prehistoric	Temporary Camp	U
2420	CA-KER-4911	Prehistoric	Lithic Deposit	U
2421	CA-KER-6023	Prehistoric	Milling Station – Bedrock Milling Slick	U
2422	CA-KER-6024	Prehistoric	Hearth/Roasting Pit	U
2423	CA-KER-6025	Prehistoric	Hearth/Roasting Pit	U
2424	CA-KER-6026	Prehistoric	Hearth/Roasting Pit	U
2425	CA-KER-4912	Prehistoric	Temporary Camp	U
2427	CA-KER-4913	Prehistoric	Temporary Camp	U
2428	CA-KER-4914	Prehistoric	Temporary Camp	U
2429	CA-KER-4915	Prehistoric	Temporary Camp	U
2430	CA-KER-4916H	Historic	Historic Period Refuse Deposit	U
2431	CA-KER-1190	Prehistoric	Milling Station – Bedrock Mortar and Slick	U
2434	CA-KER-5011	Prehistoric	Lithic Deposit	U
2435	CA-KER-5012	Prehistoric	Temporary Camp	U
2436	CA-KER-5013	Prehistoric	Temporary Camp	U
2437	CA-KER-5014	Prehistoric	Lithic Deposit	U
2438	CA-KER-5174	Prehistoric	Hearth/Roasting Pit	U
2439	CA-KER-5175	Prehistoric	Temporary Camp	U
2440	CA-KER-6027H	Historic	Historic Period Refuse Deposit	U
2441	CA-KER-6028	Prehistoric	Hearth/Roasting Pit	U
2442	CA-KER-6029	Prehistoric	Hearth/Roasting Pit	U
2443	CA-KER-6030	Prehistoric	Hearth/Roasting Pit	U
2444	CA-KER-6031	Prehistoric	Milling Station – Bedrock Milling Slick	U
2445	CA-KER-6032H	Historic	Mine, Open Pit	U
2446	CA-KER-6033	Prehistoric	Temporary Camp	U
2447	CA-KER-5165H	Historic	Mine, Developed Shaft	U
2448	CA-KER-5075H	Historic	Mine, Open Pit	U
2449	CA-SBR-10331	Prehistoric	Lithic Deposit	U
2450	CA-SBR-10332	Prehistoric	Lithic Deposit	U
2451	CA-SBR-10333	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2452	CA-SBR-10334	Prehistoric	Temporary Camp	U
2453	CA-KER-6034H	Historic	Historic Period Refuse Deposit	U
2454	CA-KER-5572	Prehistoric	Hearth/Roasting Pit	U
2455	CA-KER-5573	Prehistoric	Hearth/Roasting Pit	U
2456	CA-SBR-10335	Prehistoric	Lithic Deposit	U
2457	CA-SBR-10336	Prehistoric	Lithic Deposit	U
2458	CA-KER-5667H	Historic	Historic Period Refuse Deposit	U
2459	CA-KER-5668H	Historic	Historic Period Refuse Deposit	U
2460	CA-KER-5669H	Historic	Agricultural Feature	U
2461	CA-SBR-10337	Prehistoric	Lithic Deposit	U
2462	CA-SBR-10338	Prehistoric	Lithic Deposit	U
2463	CA-SBR-10339H	Historic	Mine, Claim	U
2464	CA-SBR-10340	Prehistoric	Lithic Deposit	U
2465	CA-SBR-10341	Prehistoric	Lithic Deposit	U
2466	CA-KER-5167	Prehistoric	Lithic Deposit	U
2467	CA-SBR-10343	Prehistoric	Lithic Deposit	U
2468	CA-SBR-10344	Prehistoric	Lithic Deposit	U
2469	CA-SBR-10345	Prehistoric	Lithic Deposit	U
2470	CA-SBR-8854	Prehistoric	Temporary Camp	U
2471	CA-SBR-10346	Prehistoric	Lithic Deposit	I
2472	CA-KER-5176	Prehistoric	Temporary Camp	U
2473	CA-KER-5160H	Historic	Historic Period Refuse Deposit	U
2474	CA-KER-5160H	Historic	Mine, Developed Shaft	U
2475	CA-KER-5155	Prehistoric	Hearth/Roasting Pit	U
2476	CA-KER-5156	Prehistoric	Lithic Deposit	U
2477	CA-KER-5154	Prehistoric	Hearth/Roasting Pit	U
2478	CA-KER-5670	Prehistoric	Lithic Deposit	U
2479	CA-KER-5774	Prehistoric	Milling Station – Bedrock Mortar	U
2480	CA-KER-5775	Prehistoric	Milling Station – Bedrock Mortar	U
2481	CA-KER-5789	Prehistoric	Milling Station – Bedrock Mortar	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2482	CA-KER-5776	Prehistoric	Hearth/Roasting Pit	U
2483	CA-KER-5166	Prehistoric	Lithic Deposit	U
2484	CA-KER-5180H	Historic	Historic Period Refuse Deposit	U
2485	CA-KER-5169H	Historic	Historic Period Refuse Deposit	U
2486	CA-KER-5157	Prehistoric	Hearth/Roasting Pit	U
2487	CA-KER-5181	Prehistoric	Lithic Deposit	U
2488	CA-KER-5158	Prehistoric	Hearth/Roasting Pit	U
2489	CA-KER-5159	Prehistoric	Hearth/Roasting Pit	U
2490	CA-KER-5066	Prehistoric	Temporary Camp	U
2491	CA-KER-5067	Prehistoric	Lithic Deposit	U
2492	CA-KER-5068H	Historic	Historic Period Refuse Deposit	U
2493	CA-KER-5069	Prehistoric	Temporary Camp	U
2494	CA-KER-5070	Prehistoric	Lithic Deposit	U
2495	CA-KER-5071	Prehistoric	Temporary Camp	U
2496	CA-KER-5072	Prehistoric	Lithic Deposit	U
2497	CA-KER-5077H	Military	Inactive Building/Facility – Foundation/Ruins	U
2498	CA-KER-5076	Prehistoric	Lithic Deposit	U
2499	CA-KER-5146H	Historic	Historic Period Refuse Deposit	U
2500	CA-KER-5064H	Historic	Historic Period Refuse Deposit	I
2501	CA-KER-5047H	Historic	Historic Period Refuse Deposit	U
2502	CA-KER-5783H	Historic	Historic Period Refuse Deposit	U
2503	CA-KER-5143	Prehistoric	Temporary Camp	I
2504	CA-KER-5173H	Historic	Mine, Prospect	U
2505	CA-KER-5078	Prehistoric	Hearth/Roasting Pit	U
2506	CA-KER-5079	Prehistoric	Lithic Deposit	U
2507	CA-KER-5144H	Historic	Historic Period Refuse Deposit	U
2508	CA-KER-5145	Prehistoric	Temporary Camp	U
2509	CA-KER-5063	Prehistoric	Temporary Camp	I
2510	CA-KER-5170H	Historic	Historic Period Refuse Deposit	I
2511	CA-KER-5171	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2512	CA-KER-5061	Prehistoric	Temporary Camp	U
2513	CA-KER-5073H	Historic	Historic Period Refuse Deposit	U
2514	CA-KER-5074	Prehistoric	Temporary Camp	U
2515	CA-KER-5102H	Historic	Historic Period Refuse Deposit	U
2516	CA-KER-5153H	Historic	Historic Period Refuse Deposit	U
2517	CA-KER-5152H	Historic	Historic Period Refuse Deposit	U
2518	CA-KER-5065H	Historic	Historic Period Refuse Deposit	U
2519	CA-KER-5121H	Historic	Historic Period Refuse Deposit	U
2520	CA-KER-5122H	Historic	Historic Period Refuse Deposit	U
2521	CA-KER-5123H	Historic	Historic Period Refuse Deposit	U
2522	CA-KER-5164H	Historic	Historic Period Refuse Deposit	U
2523	CA-KER-5786H	Historic	Road	U
2524	CA-KER-5172H	Historic	Historic Period Refuse Deposit	I
2526	CA-LAN-2646	Prehistoric	Temporary Camp	U
2527	CA-LAN-2643	Prehistoric	Hearth/Roasting Pit	U
2528	CA-KER-5161	Prehistoric	Hearth/Roasting Pit	U
2529	CA-LAN-2642	Prehistoric	Temporary Camp	U
2530	CA-LAN-2624H	Historic	Historic Period Refuse Deposit	U
2531	CA-LAN-2625H	Historic	Historic Period Refuse Deposit	U
2532	CA-LAN-2634	Prehistoric	Temporary Camp	U
2533	CA-LAN-2635	Prehistoric	Lithic Deposit	U
2534	CA-LAN-2636	Prehistoric	Lithic Deposit	U
2535	CA-LAN-2639H	Historic	Historic Period Refuse Deposit	U
2536	CA-LAN-2647H	Historic	Historic Period Refuse Deposit	U
2537	CA-LAN-2626H	Historic	Historic Period Refuse Deposit	U
2538	CA-KER-5671H	Historic	Historic Period Refuse Deposit	U
2539	CA-KER-5787H	Historic	Historic Period Refuse Deposit	U
2540	CA-KER-5672H	Historic	Historic Period Refuse Deposit	U
2541	CA-KER-5433	Prehistoric	Lithic Deposit	U
2542	CA-KER-5434	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2543	CA-KER-5435	Prehistoric	Temporary Camp	U
2544	CA-LAN-2615H	Military	Historic Period Refuse Deposit	U
2545	CA-KER-5430	Prehistoric	Lithic Deposit	U
2546	CA-KER-5431	Prehistoric	Lithic Deposit	U
2547	CA-KER-5432	Prehistoric	Lithic Deposit	I
2548	CA-KER-5673H	Historic	Historic Period Refuse Deposit	U
2549	CA-SBR-9383	Prehistoric	Hearth/Roasting Pit	I
2550	CA-SBR-9384	Prehistoric	Lithic Deposit	U
2551	CA-SBR-9385	Prehistoric	Temporary Camp	U
2552	CA-LAN-2951	Prehistoric	Lithic Deposit	U
2553	CA-KER-5288	Prehistoric	Hearth/Roasting Pit	I
2554	CA-KER-5305	Prehistoric	Temporary Camp	U
2555	CA-KER-5306	Prehistoric	Base Camp/Village	I
2556	CA-LAN-2614	Prehistoric	Lithic Deposit	I
2557	CA-LAN-2613	Prehistoric	Lithic Deposit	I
2558	CA-LAN-2644	Prehistoric	Lithic Deposit	U
2559	CA-SBR-9382H	Historic	Mine, Prospect	U
2560	CA-SBR-8979	Prehistoric	Hearth/Roasting Pit	U
2561	CA-SBR-8980H	Historic	Historic Period Refuse Deposit	U
2562	CA-SBR-8981H	Historic	Historic Period Refuse Deposit	U
2563	CA-SBR-8982H	Historic	Historic Period Refuse Deposit	U
2564	CA-LAN-2645	Prehistoric	Lithic Deposit	U
2565	CA-SBR-9386H	Historic	Mine, Claim	U
2566	CA-SBR-9474H	Historic	Historic Period Refuse Deposit	U
2567	CA-SBR-9475H	Historic	Homesite/Homestead	U
2568	CA-SBR-9381	Prehistoric	Lithic Deposit	U
2569	CA-SBR-9488	Prehistoric	Lithic Deposit	U
2570	CA-SBR-9489	Prehistoric	Lithic Deposit	U
2571	CA-SBR-9490	Prehistoric	Lithic Deposit	U
2572	CA-SBR-9485	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2573	CA-SBR-9486	Prehistoric	Lithic Deposit	U
2574	CA-SBR-9487	Prehistoric	Lithic Deposit	U
2575	CA-SBR-9376	Prehistoric	Lithic Deposit	U
2576	CA-SBR-9377	Prehistoric	Lithic Deposit	U
2577	CA-SBR-9378	Prehistoric	Lithic Deposit	U
2578	CA-SBR-9379	Prehistoric	Lithic Deposit	U
2579	CA-SBR-9380	Prehistoric	Lithic Deposit	U
2580	CA-KER-5788H	Historic	Historic Period Refuse Deposit	U
2581	CA-KER-5666H	Historic	Historic Period Refuse Deposit	U
2582	CA-KER-5685	Prehistoric	Temporary Camp	I
2583	CA-KER-5684H	Historic	Railroad Feature	U
2584	CA-KER-5683	Prehistoric	Lithic Deposit	I
2585	CA-LAN-2762	Prehistoric	Lithic Deposit	U
2586	CA-KER-5178H	Historic	Historic Period Refuse Deposit	U
2587	CA-KER-5177	Prehistoric	Lithic Deposit	U
2588	CA-KER-5163	Prehistoric	Lithic Deposit	U
2589	CA-KER-5255H	Military	Inactive Building/Facility	U
2590	CA-SBR-9472	Prehistoric	Temporary Camp	I
2591	CA-SBR-9473	Prehistoric	Lithic Deposit	U
2592	CA-SBR-9373	Prehistoric	Temporary Camp	U
2593	CA-SBR-9374	Prehistoric	Lithic Deposit	U
2594	CA-SBR-9375	Prehistoric	Lithic Deposit	U
2595	CA-SBR-9470	Prehistoric	Temporary Camp	U
2596	CA-SBR-9471	Prehistoric	Lithic Deposit	I
2597	CA-SBR-9498H	Historic	Historic Period Refuse Deposit	U
2598	CA-SBR-9499	Prehistoric	Lithic Deposit	U
2599	CA-SBR-9500	Prehistoric	Temporary Camp	I
2600	CA-SBR-9501	Prehistoric	Lithic Deposit	U
2601	CA-KER-5293H	Military	Inactive Building/Facility – Target	U
2602	CA-LAN-2763	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2603	CA-SBR-9482H	Historic	Mine, Claim	U
2604	CA-KER-5423	Prehistoric	Lithic Deposit	U
2605	CA-KER-5424	Prehistoric	Lithic Deposit	U
2606	CA-SBR-10347H	Historic	Mine, Claim	U
2607	CA-KER-5425	Prehistoric	Lithic Deposit	U
2608	CA-KER-5426	Prehistoric	Lithic Deposit	U
2609	CA-KER-5294H	Military	Inactive Building/Facility – Target	U
2610	CA-KER-5436	Prehistoric	Hearth/Roasting Pit	U
2611	CA-LAN-2764	Prehistoric	Temporary Camp	U
2612	CA-KER-5437	Prehistoric	Lithic Deposit	U
2613	CA-KER-5311H	Military	Inactive Building/Facility – Target	U
2617	CA-KER-5256H	Historic	Historic Period Refuse Deposit	U
2618	CA-KER-5257	Prehistoric	Lithic Deposit	I
2619	CA-KER-5258	Prehistoric	Lithic Deposit	I
2620	CA-KER-5259H	Historic	Historic Period Refuse Deposit	I
2621	CA-KER-5771H	Historic	Historic Period Refuse Deposit	U
2623	CA-KER-5334H	Military	Inactive Building/Facility	U
2624	CA-KER-5260H	Historic	Historic Period Refuse Deposit	U
2626	CA-KER-5778H	Historic	Mine, Developed Shaft	U
2627	CA-LAN-2765	Prehistoric	Temporary Camp	I
2628	CA-KER-5335	Prehistoric	Temporary Camp	U
2629	CA-KER-5336	Prehistoric	Temporary Camp	U
2630	CA-KER-5261H	Historic	Historic Period Refuse Deposit	U
2631	CA-KER-5262H	Historic	Historic Period Refuse Deposit	U
2632	CA-KER-5263H	Historic	Historic Period Refuse Deposit	U
2633	CA-SBR-10348H	Historic	Mine, Camp/Occupation	U
2634	CA-KER-5338	Prehistoric	Temporary Camp	U
2635	CA-KER-5286H	Historic	Historic Period Refuse Deposit	U
2636	CA-KER-5313H	Historic	Railroad Feature	U
2637	CA-KER-5309	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2638	CA-KER-5310H	Historic	Historic Period Refuse Deposit	U
2639	CA-KER-5295	Prehistoric	Lithic Deposit	U
2640	CA-KER-5296	Prehistoric	Lithic Deposit	U
2641	CA-KER-5297	Prehistoric	Lithic Deposit	U
2642	CA-KER-5413	Prehistoric	Temporary Camp	U
2643	CA-KER-5414	Prehistoric	Temporary Camp	U
2644	CA-KER-5415	Prehistoric	Hearth/Roasting Pit	U
2645	CA-KER-5416	Prehistoric	Temporary Camp	U
2646	CA-KER-5417	Prehistoric	Lithic Deposit	U
2647	CA-KER-5418	Prehistoric	Hearth/Roasting Pit	U
2648	CA-KER-5419	Prehistoric	Temporary Camp	U
2649	CA-KER-5420	Prehistoric	Hearth/Roasting Pit	U
2650	CA-KER-5298	Prehistoric	Temporary Camp	U
2651	CA-KER-5299	Prehistoric	Temporary Camp	U
2652	CA-KER-5285	Prehistoric	Hearth/Roasting Pit	U
2653	CA-KER-5314H	Historic	Historic Period Refuse Deposit	U
2654	CA-KER-5315H	Historic	Mine, Claim	U
2655	CA-KER-5291	Prehistoric	Lithic Deposit	U
2656	CA-KER-5302	Prehistoric	Hearth/Roasting Pit	U
2657	CA-KER-5303	Prehistoric	Hearth/Roasting Pit	U
2658	CA-KER-5304	Prehistoric	Hearth/Roasting Pit	U
2659	CA-KER-5292	Prehistoric	Temporary Camp	U
2660	CA-SBR-10349	Prehistoric	Temporary Camp	U
2661	CA-KER-5317	Prehistoric	Temporary Camp	U
2662	CA-KER-5318	Prehistoric	Hearth/Roasting Pit	U
2663	CA-KER-5301	Prehistoric	Hearth/Roasting Pit	U
2664	CA-SBR-9502	Prehistoric	Lithic Deposit	U
2665	CA-SBR-9503	Prehistoric	Lithic Deposit	U
2666	CA-SBR-9504	Prehistoric	Lithic Deposit	U
2667	CA-SBR-9505H	Historic	Mine, Claim	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2668	CA-SBR-9491H	Historic	Mine, Camp/Occupation	U
2669	CA-SBR-9492H	Historic	Mine, Claim	U
2670	CA-SBR-9493H	Historic	Mine, Claim	U
2671	CA-SBR-9494H	Historic	Mine, Claim	U
2672	CA-SBR-9495H	Historic	Mine, Claim	U
2673	CA-SBR-9496H	Historic	Mine, Claim	U
2674	CA-SBR-9497H	Historic	Mine, Claim	U
2675	CA-KER-5308	Prehistoric	Lithic Deposit	U
2676	CA-SBR-9467	Prehistoric	Lithic Deposit	U
2677	CA-SBR-9468	Prehistoric	Lithic Deposit	U
2678	CA-SBR-9469	Prehistoric	Hearth/Roasting Pit	U
2679	CA-KER-5425H	Historic	Historic Period Refuse Deposit	U
2680	CA-KER-5426	Prehistoric	Hearth/Roasting Pit	U
2681	CA-KER-5284H	Historic	Mine, Camp/Occupation	U
2682	CA-KER-5327H	Historic	Historic Period Refuse Deposit	U
2683	CA-KER-5428	Prehistoric	Lithic Deposit	U
2684	CA-KER-5429	Prehistoric	Lithic Deposit	U
2685	CA-LAN-2631	Prehistoric	Temporary Camp	U
2686	CA-LAN-2632	Prehistoric	Lithic Deposit	U
2687	CA-LAN-2633	Prehistoric	Lithic Deposit	U
2688	CA-LAN-2627	Prehistoric	Lithic Deposit	U
2689	CA-KER-5319	Prehistoric	Hearth/Roasting Pit	U
2690	CA-KER-5779H	Military	Inactive Building/Facility – Target	U
2691	CA-KER-5780H	Historic	Homesite/Homestead	U
2692	CA-KER-5689H	Historic	Historic Period Refuse Deposit	U
2693	CA-KER-5782H	Historic	Historic Period Refuse Deposit	U
2694	CA-KER-6035H	Historic	Historic Period Refuse Deposit	U
2695	CA-KER-5332	Prehistoric	Temporary Camp	U
2696	CA-KER-5336H	Historic	Historic Period Refuse Deposit	U
2697	CA-KER-5333	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2698	CA-SBR-9769H	Historic	Historic Period Refuse Deposit	U
2699	CA-LAN-2650H	Historic	Historic Period Refuse Deposit	U
2700	CA-LAN-2649H	Historic	Historic Period Refuse Deposit	U
2701	CA-KER-5427H	Historic	Historic Period Refuse Deposit	U
2702	CA-SBR-9510	Prehistoric	Quarry/Lithic Source – Exploited Bedrock Source	I
2703	CA-SBR-9511H	Historic	Historic Period Refuse Deposit	U
2704	CA-KER-5537H	Historic	Historic Period Refuse Deposit	U
2705	CA-KER-5538H	Historic	Historic Period Refuse Deposit	U
2706	CA-KER-5328	Prehistoric	Lithic Deposit	U
2707	CA-SBR-9770	Prehistoric	Temporary Camp	I
2708	CA-KER-5424H	Military	Aircraft/Aerospace Vehicle Crash Site	U
2709	CA-KER-5438H	Historic	Historic Period Refuse Deposit	U
2710	CA-KER-5329	Prehistoric	Temporary Camp	U
2711	CA-KER-5539	Prehistoric	Temporary Camp	U
2712	CA-KER-5540	Prehistoric	Lithic Deposit	U
2713	CA-KER-5535	Prehistoric	Lithic Deposit	U
2714	CA-KER-5331	Prehistoric	Lithic Deposit	U
2715	CA-KER-5339H	Historic	Mine, Camp/Occupation	U
2716	CA-KER-5340H	Historic	Historic Period Refuse Deposit	U
2717	CA-KER-5541H	Historic	Historic Period Refuse Deposit	U
2718	CA-KER-5542	Prehistoric	Lithic Deposit	I
2719	CA-KER-5533	Prehistoric	Temporary Camp	U
2720	CA-KER-5341	Prehistoric	Lithic Deposit	I
2721	CA-KER-5330H	Historic	Historic Period Refuse Deposit	U
2722	CA-SBR-9813	Prehistoric	Lithic Deposit	I
2724	CA-KER-5510H	Historic	Historic Period Refuse Deposit	U
2725	CA-KER-5279H	Historic	Historic Period Refuse Deposit	I
2726	CA-KER-5279H	Historic	Roads and Trails-Unpaved	I
2727	CA-KER-5534	Prehistoric	Lithic Deposit	U
2728	CA-KER-5465H	Historic	Historic Period Refuse Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2729	CA-KER-5466H	Historic	Historic Period Refuse Deposit	I
2730	CA-KER-5467H	Historic	Historic Period Refuse Deposit	I
2731	CA-KER-5468H	Historic	Historic Period Refuse Deposit	I
2732	CA-KER-5469H	Historic	Historic Period Refuse Deposit	I
2733	CA-KER-5508H	Historic	Historic Period Refuse Deposit	I
2734	CA-SBR-9483H	Historic	Historic Period Refuse Deposit	U
2735	CA-SBR-9484H	Historic	Historic Period Refuse Deposit	U
2736	CA-SBR-9478	Prehistoric	Lithic Deposit	U
2737	CA-SBR-9479H	Historic	Historic Period Refuse Deposit	U
2738	CA-SBR-9480	Prehistoric	Lithic Deposit	U
2739	CA-SBR-9481H	Military	Inactive Building/Facility – Target	U
2740	CA-KER-5480	Prehistoric	Temporary Camp	I
2741	CA-KER-5478H	Historic	Historic Period Refuse Deposit	I
2742	CA-KER-5472	Prehistoric	Hearth/Roasting Pit	I
2743	CA-KER–525/H	Prehistoric	Lithic Deposit	I
2744	CA-KER-5471	Prehistoric	Lithic Deposit	U
2745	CA-KER-5470	Prehistoric	Hearth/Roasting Pit	I
2746	CA-SBR-9477H	Military	Inactive Building/Facility – Foundation/Ruins	U
2747	CA-SBR-9476H	Historic	Mine, Prospect	U
2748	CA-KER-5464H	Historic	Historic Period Refuse Deposit	U
2749	CA-KER-5463H	Historic	Historic Period Refuse Deposit	U
2750	CA-KER-5461H	Historic	Mine, Prospect	U
2751	CA-KER-5462	Prehistoric	Lithic Deposit	U
2752	CA-LAN-2658H	Historic	Historic Period Refuse Deposit	U
2753	CA-KER-5477H	Military	Inactive Building/Facility – Target	U
2754	CA-KER-5475H	Military	Inactive Building/Facility – Foundation/Ruins	U
2755	CA-KER-5473H	Military	Historic Period Refuse Deposit	U
2756	CA-KER-5474	Prehistoric	Temporary Camp	I
2757	CA-KER-5476	Prehistoric	Hearth/Roasting Pit	I
2758	CA-KER-5479	Prehistoric	Temporary Camp	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2759	CA-KER-5514H	Historic	Historic Period Refuse Deposit	U
2760	CA-SBR-9515	Prehistoric	Lithic Deposit	U
2761	CA-SBR-9516	Prehistoric	Temporary Camp	I
2762	CA-KER-5545H	Historic	Survey Marker/Site	U
2763	CA-SBR-9605	Prehistoric	Temporary Camp	U
2764	CA-SBR-9512	Prehistoric	Lithic Deposit	U
2765	CA-SBR-9606	Prehistoric	Temporary Camp	I
2766	CA-SBR-9607	Prehistoric	Lithic Deposit	U
2767	CA-SBR-9608H	Historic	Historic Period Refuse Deposit	U
2768	CA-KER-5342H	Historic	Historic Period Refuse Deposit	U
2769	CA-SBR-9513	Prehistoric	Temporary Camp	U
2770	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
2771	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
2772	CA-LAN-2662H	Historic	Historic Period Refuse Deposit	U
2773	CA-LAN-2663H	Historic	Historic Period Refuse Deposit	U
2774	CA-LAN-2664H	Historic	Historic Period Refuse Deposit	U
2775	CA-LAN-2661	Prehistoric	Lithic Deposit	I
2776	CA-KER-2308/H	Prehistoric	Lithic Deposit	I
2777	CA-KER-5578	Prehistoric	Lithic Deposit	I
2778	CA-KER-5579	Prehistoric	Temporary Camp	I
2779	CA-SBR-9599	Prehistoric	Temporary Camp	U
2781	CA-KER-5690H	Historic	Survey Marker/Site	U
2782	CA-SBR-9514H	Historic	Survey Marker/Site	U
2784	CA-KER-XXXXH	Military	Inactive Building/Facility – Foundation/Ruins	U
2785	CA-KER-5517	Prehistoric	Lithic Deposit	I
2786	CA-SBR-9597	Prehistoric	Lithic Deposit	U
2787	CA-SBR-9772	Prehistoric	Lithic Deposit	U
2788	CA-SBR-9598	Prehistoric	Lithic Deposit	U
2790	CA-SBR-9773	Prehistoric	Temporary Camp	U
2791	CA-SBR-9518	Prehistoric	Lithic Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2792	CA-KER-5553	Prehistoric	Temporary Camp	I
2793	CA-LAN-2675H	Historic	Survey Marker/Site	U
2794	CA-KER-5554H	Historic	Historic Period Refuse Deposit	U
2795	CA-SBR-9777	Prehistoric	Lithic Deposit	I
2796	CA-SBR-9600	Prehistoric	Lithic Deposit	U
2797	CA-SBR-9601	Prehistoric	Lithic Deposit	U
2798	CA-SBR-9778	Prehistoric	Lithic Deposit	U
2799	CA-SBR-9517	Prehistoric	Lithic Deposit	I
2800	CA-SBR-9779	Prehistoric	Lithic Deposit	U
2801	CA-LAN-2674H	Historic	Historic Period Refuse Deposit	U
2802	CA-LAN-2673H	Historic	Survey Marker/Site	U
2803	CA-LAN-2672H	Historic	Survey Marker/Site	U
2804	CA-LAN-2671H	Historic	Historic Period Refuse Deposit	U
2805	CA-KER-5555H	Historic	Homesite/Homestead	U
2806	CA-KER-5556H	Historic	Historic Period Refuse Deposit	U
2807	CA-KER-5518	Prehistoric	Temporary Camp	I
2808	CA-KER-5519H	Historic	Historic Period Refuse Deposit	U
2809	CA-KER-5520H	Historic	Historic Period Refuse Deposit	U
2810	CA-KER-5521	Prehistoric	Temporary Camp	U
2811	CA-KER-5522H	Historic	Historic Period Refuse Deposit	U
2812	CA-KER-5523H	Historic	Historic Period Refuse Deposit	I
2813	CA-LAN-2684H	Historic	Agricultural Feature, Fenceline	U
2814	CA-KER-5580	Prehistoric	Lithic Deposit	I
2815	CA-KER-5543	Prehistoric	Hearth/Roasting Pit	U
2816	CA-KER-5546	Prehistoric	Lithic Deposit	U
2817	CA-KER-5547	Prehistoric	Temporary Camp	I
2818	CA-KER-5548	Prehistoric	Lithic Deposit	U
2819	CA-KER-5549	Prehistoric	Lithic Deposit	I
2820	CA-KER-5550	Prehistoric	Lithic Deposit	U
2821	CA-KER-5551	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2822	CA-KER-5552	Prehistoric	Temporary Camp	I
2823	CA-KER-5644H	Historic	Historic Period Refuse Deposit	U
2824	CA-KER-5645H	Historic	Historic Period Refuse Deposit	U
2825	CA-KER-5646H	Historic	Historic Period Refuse Deposit	U
2826	CA-KER-5647H	Historic	Historic Period Refuse Deposit	U
2827	CA-LAN-2670H	Historic	Survey Marker/Site	U
2829	CA-LAN-2668H	Historic	Survey Marker/Site	U
2828	CA-LAN-2669H	Historic	Survey Marker/Site	U
2830	CA-KER-5648H	Historic	Historic Period Refuse Deposit	U
2831	CA-KER-5649H	Historic	Historic Period Refuse Deposit	U
2832	CA-LAN-2667H	Historic	Historic Period Refuse Deposit	U
2833	CA-LAN-2683H	Historic	Historic Period Refuse Deposit	U
2834	CA-LAN-2666H	Historic	Historic Period Refuse Deposit	U
2835	CA-LAN-2665H	Historic	Historic Period Refuse Deposit	U
2836	CA-LAN-2685H	Historic	Mine, Camp/Occupation	U
2838	CA-KER-5716	Prehistoric	Temporary Camp	E
2839	CA-KER-5717	Prehistoric	Temporary Camp	E
2840	CA-KER-5718	Prehistoric	Temporary Camp	U
2841	CA-KER-5719	Prehistoric	Lithic Deposit	U
2842	CA-KER-5720	Prehistoric	Lithic Deposit	U
2843	CA-KER-5743	Prehistoric	Lithic Deposit	U
2844	CA-SBR-9780	Prehistoric	Lithic Deposit	U
2846	CA-SBR-9781	Prehistoric	Temporary Camp	U
2847	CA-KER-6037	Prehistoric	Lithic Deposit	U
2848	CA-SBR-9774	Prehistoric	Temporary Camp	U
2849	CA-SBR-9775	Prehistoric	Lithic Deposit	U
2850	CA-SBR-9776	Prehistoric	Lithic Deposit	U
2851	CA-SBR-9782	Prehistoric	Lithic Deposit	I
2852	CA-KER-5623H	Historic	Historic Period Refuse Deposit	U
2853	CA-SBR-9783	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2854	CA-KER-5715	Prehistoric	Lithic Deposit	U
2855	CA-KER-5639H	Historic	Agricultural Feature	U
2856	CA-KER-5730	Prehistoric	Temporary Camp	U
2857	CA-KER-5724	Prehistoric	Hearth/Roasting Pit	U
2858	CA-KER-5725	Prehistoric	Temporary Camp	U
2859	CA-KER-5726H	Historic	Historic Period Refuse Deposit	U
2860	CA-KER-5633H	Historic	Historic Period Refuse Deposit	U
2861	CA-KER-XXXXH	Military	Inactive Building/Facility	U
2862	CA-KER-5727	Prehistoric	Lithic Deposit	U
2863	CA-KER-5634H	Historic	Historic Period Refuse Deposit	U
2864	CA-KER-5635H	Historic	Historic Period Refuse Deposit	U
2865	CA-LAN-XXXXH	Historic	Agricultural Feature, Irrigation System	U
2866	CA-SBR-9806H	Historic	Historic Period Refuse Deposit	U
2867	CA-SBR-9807	Prehistoric	Prehistoric Cairn	I
2868	CA-SBR-9884	Prehistoric	Lithic Deposit	U
2869	CA-SBR-9885	Prehistoric	Lithic Deposit	U
2870	CA-SBR-9886	Prehistoric	Lithic Deposit	I
2871	CA-KER-5629	Prehistoric	Temporary Camp	U
2872	CA-KER-5636H	Historic	Historic Period Refuse Deposit	U
2873	CA-KER-5637H	Historic	Homesite/Homestead	U
2874	CA-KER-5728	Prehistoric	Temporary Camp	U
2875	CA-KER-5729	Prehistoric	Temporary Camp	U
2876	CA-KER-5631H	Historic	Historic Period Refuse Deposit	U
2877	CA-KER-5630	Prehistoric	Lithic Deposit	U
2878	CA-KER-5632	Prehistoric	Lithic Deposit	U
2879	CA-KER-5640H	Historic	Historic Period Refuse Deposit	U
2880	CA-SBR-9887	Prehistoric	Temporary Camp	U
2881	CA-SBR-10350H	Historic	Historic Period Refuse Deposit	U
2882	CA-SBR-9888	Prehistoric	Lithic Deposit	U
2883	CA-SBR-9808H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2884	CA-SBR-9780	Prehistoric	Lithic Deposit	U
2885	CA-SBR-9889H	Historic	Mine, Claim	U
2886	CA-KER-6038H	Historic	Historic Period Refuse Deposit	U
2887	CA-SBR-10351	Prehistoric	Hearth/Roasting Pit	U
2888	CA-SBR-10352	Prehistoric	Hearth/Roasting Pit	U
2889	CA-SBR-10353H	Historic	Rock Feature, Historic Cairn	U
2890	CA-SBR-9809	Prehistoric	Lithic Deposit	U
2891	CA-KER-5641	Prehistoric	Lithic Deposit	U
2892	CA-KER-5642H	Historic	Historic Period Refuse Deposit	U
2893	CA-KER-5638H	Historic	Historic Period Refuse Deposit	U
2894	CA-SBR-9810	Prehistoric	Lithic Deposit	I
2895	CA-KER-5675H	Historic	Historic Period Refuse Deposit	U
2896	CA-KER-6039H	Historic	Historic Period Refuse Deposit	U
2897	CA-KER-5651H	Historic	Historic Period Refuse Deposit	U
2898	CA-SBR-9811	Prehistoric	Lithic Deposit	U
2899	CA-SBR-9812	Prehistoric	Lithic Deposit	U
2900	CA-KER-5643	Prehistoric	Lithic Deposit	U
2901	CA-KER-5746	Prehistoric	Hearth/Roasting Pit	U
2902	CA-KER-5747	Prehistoric	Lithic Deposit	U
2903	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
2904	CA-KER-5624	Prehistoric	Lithic Deposit	U
2905	CA-KER-XXXXH	Historic	Agricultural Feature, Well	U
2906	CA-KER-5748H	Historic	Survey Marker/Site	U
2907	CA-KER-5749H	Historic	Survey Marker/Site	U
2909	CA-KER-5659	Prehistoric	Lithic Deposit	U
2910	CA-KER-5660	Prehistoric	Temporary Camp	U
2913	CA-KER-5733H	Historic	Historic Period Refuse Deposit	U
2914	CA-SBR-10370	Prehistoric	Temporary Camp	I
2915	CA-KER-5734	Prehistoric	Temporary Camp	U
2916	CA-KER-5735	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2917	CA-SBR-9890	Prehistoric	Lithic Deposit	U
2918	CA-SBR-9891	Prehistoric	Temporary Camp	I
2919	CA-SBR-9892	Prehistoric	Lithic Deposit	I
2920	CA-SBR-9893	Prehistoric	Lithic Deposit	U
2921	CA-SBR-8912H	Historic	Mine, Developed Shaft	U
2922	CA-KER-5877H	Historic	Agricultural Feature, Well	U
2923	CA-KER-5681	Prehistoric	Lithic Deposit	U
2924	CA-KER-5736	Prehistoric	Lithic Deposit	U
2926	CA-KER-5661	Prehistoric	Temporary Camp	U
2927	CA-KER-5662H	Historic	Agricultural Feature, Well	U
2928	CA-KER-5682	Prehistoric	Lithic Deposit	U
2929	CA-KER-5738	Prehistoric	Lithic Deposit	U
2930	CA-KER-5745	Prehistoric	Hearth/Roasting Pit	U
2931	CA-KER-5652	Prehistoric	Lithic Deposit	U
2932	CA-KER-5744H	Historic	Mine, Claim	U
2933	CA-KER-5739	Prehistoric	Lithic Deposit	U
2934	CA-KER-5743H	Historic	Historic Period Refuse Deposit	U
2935	CA-KER-5742	Prehistoric	Hearth/Roasting Pit	U
2936	CA-KER-5740H	Historic	Historic Period Refuse Deposit	U
2937	CA-KER-5741H	Historic	Historic Period Refuse Deposit	U
2938	CA-KER-5737H	Historic	Historic Period Refuse Deposit	U
2940	CA-KER-5723	Prehistoric	Lithic Deposit	U
2941	CA-KER-5725H	Military	Inactive Building/Facility – Target	U
2942	CA-KER-5676H	Historic	Historic Period Refuse Deposit	U
2943	CA-LAN-2785H	Historic	Survey Marker/Site	U
2944	CA-LAN-2784H	Historic	Survey Marker/Site	U
2945	CA-LAN-3002H	Historic	Survey Marker/Site	U
2946	CA-LAN-3003H	Historic	Survey Marker/Site	U
2947	CA-LAN-2783H	Historic	Mine, Developed Shaft	U
2948	CA-LAN-2782H	Historic	Survey Marker/Site	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2949	CA-LAN-2781H	Historic	Survey Marker/Site	U
2950	CA-LAN-2952	Prehistoric	Temporary Camp	U
2951	CA-LAN-2950	Prehistoric	Lithic Deposit	U
2952	CA-LAN-2949	Prehistoric	Hearth/Roasting Pit	U
2953	CA-LAN-3001	Historic	Agricultural Feature, Well	U
2954	CA-KER-1892/H	Prehistoric	Hearth/Roasting Pit	U
2955	CA-LAN-1067/H	Prehistoric	Lithic Deposit	U
2956	CA-LAN-1289/H	Prehistoric	Temporary Camp	U
2957	CA-KER-1827/H	Prehistoric	Temporary Camp	U
2958	CA-KER-1890/H	Historic	Historic Period Refuse Deposit	U
2959	CA-LAN-714/H	Historic	Agricultural Feature	U
2960	CA-KER-477/H	Historic	Homesite/Homestead	U
2961	CA-KER-487/H	Historic	Homesite/Homestead	U
2962	CA-KER-496/H	Historic	Historic Period Refuse Deposit	U
2963	CA-KER-505/H	Historic	Homesite/Homestead	U
2964	CA-KER-702/H	Prehistoric	Quarry/Lithic Source	U
2965	CA-KER-1181/H	Historic	Agricultural Feature, Well	U
2966	CA-KER-1186/H	Prehistoric	Lithic Deposit	U
2967	CA-KER-1752/H	Historic	Historic Period Refuse Deposit	U
2968	CA-LAN-1184/H	Historic	Agricultural Feature, Well	U
2969	CA-LAN-1190/H	Historic	Historic Period Refuse Deposit	U
2970	CA-KER-1814/H	Historic	Historic Period Refuse Deposit	I
2971	CA-KER-1814/H	Historic	Historic Period Refuse Deposit	I
2972	CA-SBR-5168/H	Prehistoric	Lithic Deposit	I
2973	CA-SBR-5321/H	Historic	Homesite/Homestead	U
2974	CA-KER-1976/H	Historic	Historic Period Refuse Deposit	U
2975	CA-KER-1976/H	Historic	Historic Period Refuse Deposit	U
2976	CA-KER-1976/H	Historic	Historic Period Refuse Deposit	U
2977	CA-LAN-1232/H	Prehistoric	Lithic Deposit	U
2978	CA-LAN-1233/H	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
2979	CA-KER-2295/H	Prehistoric	Lithic Deposit	U
2980	CA-LAN-1243/H	Historic	Historic Period Refuse Deposit	U
2981	CA-LAN-1240/H	Historic	Homesite/Homestead	U
2982	CA-KER-2032/H	Prehistoric	Temporary Camp	U
2983	CA-KER-2053/H	Historic	Mine, Prospect	U
2984	CA-KER-2053/H	Historic	Mine, Prospect	U
2985	CA-KER-2053/H	Historic	Mine, Prospect	U
2986	CA-KER-2054/H	Prehistoric	Lithic Deposit	U
2987	CA-KER-2060/H	Historic	Historic Period Refuse Deposit	I
2988	CA-KER-2121/H	Historic	Historic Period Refuse Deposit	U
2989	CA-KER-2086/H	Prehistoric	Milling Station – Bedrock Mortar	U
2990	CA-SBR-5562/H	Prehistoric	Rock Shelter	U
2991	CA-LAN-1705/H	Prehistoric	Lithic Deposit	U
2992	CA-LAN-1286/H	Historic	Historic Period Refuse Deposit	U
2993	CA-LAN-1318/H	Prehistoric	Temporary Camp	U
2995	CA-LAN-1285/H	Prehistoric	Temporary Camp	U
2996	CA-KER-2130/H	Prehistoric	Temporary Camp	U
2997	CA-LAN-1319/H	Historic	Historic Period Refuse Deposit	U
2998	CA-LAN-1321/H	Historic	Homesite/Homestead	U
2999	CA-KER-2558/H	Prehistoric	Temporary Camp	U
3000	CA-KER-2242/H	Historic	Historic Period Refuse Deposit	U
3001	CA-LAN-3001H	Prehistoric	Temporary Camp	U
3002	CA-KER-2376/H	Prehistoric	Hearth/Roasting Pit	U
3003	CA-LAN-1508/H	Prehistoric	Lithic Deposit	U
3004	CA-KER-2482/H	Historic	Historic Period Refuse Deposit	U
3005	CA-LAN-1586/H	Historic	Agricultural Feature	U
3006	CA-SBR-6296/H	Historic	Historic Period Refuse Deposit	U
3007	CA-KER-4208/H	Prehistoric	Temporary Camp	I
3008	CA-LAN-1707/H	Historic	Historic Period Refuse Deposit	U
3009	CA-KER-2731/H	Historic	Homesite/Homestead	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3010	CA-KER-2975/H	Historic	Mine Related	U
3011	CA-KER-3362/H	Historic	Historic Period Refuse Deposit	U
3012	CA-KER-3874/H	Historic	Historic Period Refuse Deposit	U
3013	CA-KER-3875/H	Historic	Historic Period Refuse Deposit	U
3014	CA-KER-3876/H	Historic	Historic Period Refuse Deposit	U
3015	CA-KER-3877/H	Historic	Historic Period Refuse Deposit	I
3016	CA-KER-3878/H	Historic	Historic Period Refuse Deposit	U
3017	CA-KER-3880/H	Prehistoric	Milling Station – Portable Metate or Mortar	U
3018	CA-KER-3988/H	Historic	Historic Period Refuse Deposit	U
3019	CA-KER-3989/H	Military	Aircraft/Aerospace Vehicle Crash Site	U
3020	CA-KER-4143/H	Historic	Historic Period Refuse Deposit	U
3021	CA-LAN-2244/H	Historic	Historic Period Refuse Deposit	I
3022	CA-KER-4153/H	Historic	Historic Period Refuse Deposit	U
3023	CA-KER-2038/H	Historic	Homesite/Homestead	U
3024	CA-KER-4271/H	Prehistoric	Temporary Camp	U
3025	CA-KER-4267/H	Historic	Historic Period Refuse Deposit	U
3026	CA-KER-4527/H	Historic	Historic Period Refuse Deposit	U
3027	CA-KER-4332/H	Historic	Historic Period Refuse Deposit	U
3028	CA-KER-4333/H	Historic	Historic Period Refuse Deposit	U
3029	CA-KER-5722	Prehistoric	Temporary Camp	U
3030	CA-KER-5626	Prehistoric	Temporary Camp	E
3031	CA-KER-5714	Prehistoric	Lithic Deposit	U
3032	CA-KER-5627	Prehistoric	Temporary Camp	E
3033	CA-KER-5713	Prehistoric	Hearth/Roasting Pit	U
3034	CA-KER-5712	Prehistoric	Lithic Deposit	U
3035	CA-KER-5711	Prehistoric	Hearth/Roasting Pit	U
3036	CA-KER-5710	Prehistoric	Milling Station – Bedrock Milling Slick	U
3037	CA-KER-4773/H	Historic	Agricultural Feature, Well	U
3038	CA-KER-3273/H	Historic	Historic Period Refuse Deposit	U
3039	CA-LAN-863/H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3040	CA-LAN-863/H	Historic	Historic Period Refuse Deposit	U
3041	CA-LAN-863/H	Historic	Historic Period Refuse Deposit	U
3042	CA-LAN-863/H	Historic	Historic Period Refuse Deposit	U
3043	CA-KER-1810/H	Historic	Historic Period Refuse Deposit	I
3044	CA-LAN-2924H	Historic	Survey Marker/Site	U
3045	CA-LAN-2925	Prehistoric	Milling Station – Bedrock	I
3046	CA-LAN-2780H	Historic	Survey Marker/Site	U
3047	CA-LAN-2779H	Historic	Survey Marker/Site	U
3048	CA-LAN-2778H	Historic	Historic Period Refuse Deposit	U
3050	CA-KER-2015/H	Historic	Agricultural Feature, Well	U
3051	CA-LAN-1310/H	Prehistoric	Temporary Camp	U
3052	CA-KER-2128/H	Prehistoric	Temporary Camp	U
3054	CA-KER-3946/H	Prehistoric	Lithic Deposit	U
3055	CA-KER-2967/H	Historic	Historic Period Refuse Deposit	U
3056	CA-KER-2067/H	Historic	Historic Period Refuse Deposit	U
3057	CA-KER-2067/H	Historic	Historic Period Refuse Deposit	U
3059	CA-LAN-69/H	Historic	Roads and Trails/with Associated Historic Period Refuse Deposits	U
3060	CA-LAN-1296/H	Historic	Historic Period Refuse Deposit	U
3061	CA-LAN-1296/H	Historic	Historic Period Refuse Deposit	U
3062	CA-LAN-1296/H	Historic	Agricultural Feature, Well	U
3063	CA-LAN-1296/H	Historic	Historic Period Refuse Deposit	U
3064	CA-KER-5750H	Historic	Still Location – "Moonshine"	U
3065	CA-KER-6041	Prehistoric	Milling Station – Bedrock Milling Slick	U
3066	CA-KER-5677H	Historic	Mine, Prospect	U
3069	CA-KER-5824	Prehistoric	Hearth/Roasting Pit	U
3070	CA-KER-5653H	Historic	Historic Period Refuse Deposit	U
3072	CA-KER-5785	Prehistoric	Milling Station – Bedrock Mortar	U
3075	CA-LAN-2948	Historic	Historic Period Refuse Deposit	U
3076	CA-KER-5654	Prehistoric	Temporary Camp	U
3077	CA-KER-5655	Prehistoric	Hearth/Roasting Pit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3078	CA-KER-5686	Prehistoric	Lithic Deposit	U
3079	CA-KER-6042	Prehistoric	Temporary Camp	U
3080	CA-KER-5687	Prehistoric	Temporary Camp	U
3081	CA-KER-5751H	Historic	Historic Period Refuse Deposit	U
3082	CA-KER-5752	Prehistoric	Lithic Deposit	U
3083	CA-KER-6043H	Historic	Historic Period Refuse Deposit	U
3084	CA-KER-5688	Prehistoric	Temporary Camp	U
3085	CA-KER-6044	Prehistoric	Temporary Camp	U
3086	CA-KER-5825H	Historic	Historic Period Refuse Deposit	U
3087	CA-KER-5689	Prehistoric	Milling Station – Portable Metate/Mortar	I
3088	CA-KER-5753	Prehistoric	Lithic Deposit	U
3089	CA-KER-5678H	Historic	Historic Period Refuse Deposit	U
3090	CA-LAN-2947	Prehistoric	Hearth/Roasting Pit	U
3091	CA-LAN-2946	Prehistoric	Lithic Deposit	U
3092	CA-KER-5786	Prehistoric	Lithic Deposit	U
3093	CA-KER-5790	Prehistoric	Hearth/Roasting Pit	U
3094	CA-KER-5791	Prehistoric	Hearth/Roasting Pit	U
3095	CA-KER-1881/H	Historic	Historic Period Refuse Deposit	U
3096	CA-KER-5754H	Historic	Historic Period Refuse Deposit	U
3097	CA-KER-5755H	Military	Inactive Building/Facility – Target	U
3098	CA-KER-5756	Prehistoric	Hearth/Roasting Pit	E
3099	CA-KER-5757	Prehistoric	Hearth/Roasting Pit	U
3100	CA-KER-5758H	Military	Inactive Building/Facility	U
3101	CA-KER-5759	Prehistoric	Temporary Camp	U
3102	CA-KER-5679H	Historic	Homesite/Homestead	U
3103	CA-KER-5663H	Historic	Historic Period Refuse Deposit	U
3104	CA-KER-5664H	Historic	Historic Period Refuse Deposit	U
3105	CA-KER-5665H	Historic	Historic Period Refuse Deposit	U
3106	CA-KER-1764/H	Historic	Historic Period Refuse Deposit	U
3107	CA-LAN-2926H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3108	CA-LAN-2969H	Historic	Historic Period Rock Feature – Cairn	U
3109	CA-KER-XXXX	Prehistoric	Temporary Camp	I
3110	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3111	CA-KER-5761	Prehistoric	Temporary Camp	U
3112	CA-KER-6045	Prehistoric	Hearth/Roasting Pit	U
3113	CA-KER-5762	Prehistoric	Hearth/Roasting Pit	U
3114	CA-KER-5792H	Historic	Historic Period Refuse Deposit	U
3115	CA-KER-5793H	Historic	Historic Period Refuse Deposit	U
3116	CA-KER-5794	Prehistoric	Temporary Camp	U
3117	CA-KER-5769	Prehistoric	Lithic Deposit	U
3119	CA-KER-5826	Prehistoric	Temporary Camp	U
3120	CA-KER-5827H	Military	Inactive Building/Facility – Foundation/Ruins	U
3121	CA-KER-5680H	Prehistoric	Lithic Deposit	U
3122	CA-KER-6046	Prehistoric	Temporary Camp	I
3123	CA-KER-5770	Prehistoric	Lithic Deposit	I
3124	CA-KER-5768	Prehistoric	Temporary Camp	U
3125	CA-KER-5767H	Historic	Agricultural Feature, Well	U
3126	CA-SBR-10354	Prehistoric	Lithic Deposit	U
3127	CA-SBR-XXXX	Historic	Survey Marker/Site	U
3128	CA-KER-6047	Prehistoric	Base Camp/Village	U
3129	CA-KER-5766H	Historic	Historic Period Refuse Deposit	U
3130	CA-KER-5765H	Historic	Historic Period Refuse Deposit	U
3131	CA-KER-5828H	Historic	Historic Period Refuse Deposit	U
3132	CA-KER-5829H	Historic	Mine, Prospect	U
3135	CA-KER-5830H	Historic	Mine, Prospect	U
3136	CA-KER-5763H	Historic	Historic Period Refuse Deposit	U
3137	CA-SBR-10633H	Historic	Historic Period Rock Feature – Undifferentiated Rock Alignment	U
3137	CA-SBR-10633H	Historic	Rock Feature, Undifferentiated Alignment	U
3139	CA-LAN-2946	Historic	Historic Period Refuse Deposit	U
3140	CA-KER-3922/H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3141	CA-KER-5831H	Military	Inactive Building/Facility – Target	U
3143	CA-KER-5832H	Historic	Mine, Prospect	U
3144	CA-KER-5795	Prehistoric	Hearth/Roasting Pit	U
3145	CA-KER-5764H	Historic	Historic Period Refuse Deposit	U
3146	CA-KER-6048H	Historic	Homesite/Homestead	U
3150	CA-KER-5805H	Historic	Historic Period Refuse Deposit	U
3151	CA-KER-5806	Prehistoric	Lithic Deposit	E
3152	CA-KER-5807	Prehistoric	Temporary Camp	U
3153	CA-KER-5808	Prehistoric	Lithic Deposit	U
3154	CA-KER-5809	Prehistoric	Lithic Deposit	U
3155	CA-KER-5810H	Historic	Historic Period Refuse Deposit	U
3157	CA-KER-5812	Prehistoric	Lithic Deposit	U
3158	CA-KER-5813	Prehistoric	Lithic Deposit	U
3159	CA-KER-5814H	Historic	Historic Period Refuse Deposit	U
3160	CA-KER-5815	Prehistoric	Lithic Deposit	U
3161	CA-KER-5816	Prehistoric	Temporary Camp	U
3162	CA-KER-5817	Prehistoric	Temporary Camp	U
3163	CA-KER-5818	Prehistoric	Temporary Camp	U
3164	CA-KER-5819H	Historic	Historic Period Refuse Deposit	U
3165	CA-KER-5820	Prehistoric	Lithic Deposit	U
3166	CA-KER-5821	Prehistoric	Lithic Deposit	U
3167	CA-KER-5822H	Historic	Historic Period Refuse Deposit	U
3168	CA-KER-5811	Prehistoric	Lithic Deposit	U
3169	CA-KER-5796	Prehistoric	Lithic Deposit	U
3170	CA-KER-5797	Prehistoric	Lithic Deposit	U
3171	CA-KER-5798	Prehistoric	Hearth/Roasting Pit	U
3172	CA-KER-5799	Prehistoric	Temporary Camp	U
3173	CA-KER-5800	Prehistoric	Temporary Camp	U
3174	CA-KER-5801	Prehistoric	Lithic Deposit	U
3175	CA-KER-5802	Prehistoric	Temporary Camp	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3176	CA-KER-5803	Prehistoric	Lithic Deposit	U
3177	CA-KER-5804	Prehistoric	Temporary Camp	U
3179	CA-KER-1176/H	Historic	Historic Period Refuse Deposit	U
3180	CA-KER-1874/H	Historic	Historic Period Refuse Deposit	U
3181	CA-KER-1877/H	Prehistoric	Lithic Deposit	U
3183	CA-SBR-10368	Prehistoric	Temporary Camp	U
3184	CA-SBR-10369H	Historic	Historic Period Refuse Deposit	U
3185	CA-KER-3949	Prehistoric	Temporary Camp	U
3186	CA-KER-3920	Prehistoric	Temporary Camp	U
3187	CA-KER-3921H	Historic	Historic Period Refuse Deposit	U
3188	CA-KER-3922	Prehistoric	Temporary Camp	U
3189	CA-SBR-10355H	Historic	Historic Period Refuse Deposit	U
3190	CA-SBR-10356H	Military	Inactive Building/Facility – Foundation/Ruins	U
3191	CA-SBR-10357H	Historic	Mine, Claim	U
3192	CA-SBR-10358	Prehistoric	Lithic Deposit	U
3193	CA-KER-XXXX	Historic	Survey Marker/Site	U
3194	CA-KER-XXXX	Historic	Survey Marker/Site	U
3195	CA-KER-XXXX	Historic	Survey Marker/Site	U
3196	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3197	CA-LAN-2945	Historic	Historic Period Refuse Deposit	U
3198	CA-KER-XXXX	Prehistoric	Lithic Deposit	I
3200	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3201	CA-SBR-10359H	Historic	Historic Period Refuse Deposit	U
3202	CA-SBR-10360	Prehistoric	Lithic Deposit	U
3203	CA-SBR-10361/H	Prehistoric	Lithic Deposit	U
3204	CA-SBR-10361/H	Prehistoric	Lithic Deposit	U
3205	CA-SBR-10362	Prehistoric	Temporary Camp	I
3206	CA-SBR-10363	Prehistoric	Lithic Deposit	U
3207	CA-SBR-10364H	Historic	Historic Period Refuse Deposit	U
3208	CA-SBR-10365H	Historic	Historic Period Rock Feature – Cairn	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3209	CA-SBR-10366	Prehistoric	Lithic Deposit	U
3210	CA-SBR-XXXX	Prehistoric	Quarry/Lithic Source	I
3211	CA-SBR-10720H	Historic	Mine, Claim	U
3212	CA-SBR-10721H	Historic	Mine, Claim	U
3213	CA-SBR-10722H	Historic	Mine, Claim	U
3214	CA-SBR-10723H	Historic	Mine, Claim	U
3215	CA-SBR-10724H	Historic	Mine, Claim	U
3216	CA-SBR-10725H	Historic	Historic Period Refuse Deposit	U
3217	CA-SBR-10726H	Historic	Historic Period Refuse Deposit	U
3218	CA-SBR-XXXX	Historic	Historic Period Refuse Deposit	U
3219	CA-SBR-10727H	Historic	Historic Period Refuse Deposit	U
3220	CA-SBR-10728H	Historic	Historic Period Refuse Deposit	U
3221	CA-SBR-10729H	Historic	Mine, Claim	U
3222	CA-SBR-10730H	Historic	Mine, Prospect	U
3223	CA-SBR-10731H	Historic	Mine, Prospect	U
3224	CA-SBR-10732H	Historic	Mine, Prospect	U
3225	CA-SBR-10733H	Historic	Mine, Claim	U
3226	CA-SBR-10734H	Historic	Mine, Claim	U
3227	CA-SBR-XXXX	Historic	Mine, Claim	U
3228	CA-SBR-10735H	Historic	Mine, Claim	U
3230	CA-SBR-10736H	Historic	Mine, Prospect	U
3232	CA-SBR-10737H	Historic	Mine, Prospect	U
3233	CA-SBR-10738H	Historic	Mine, Claim	U
3234	CA-SBR-10739H	Historic	Mine, Claim	U
3235	CA-SBR-10740H	Historic	Mine, Prospect	U
3236	CA-SBR-10741H	Historic	Mine, Prospect	U
3237	CA-SBR-10742H	Historic	Mine, Claim	U
3238	CA-SBR-10743H	Historic	Mine, Prospect	U
3239	CA-SBR-10744H	Historic	Mine, Prospect	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3240	CA-SBR-10745H	Historic	Mine, Claim	U
3241	CA-KER-3384/H	Prehistoric	Lithic Deposit	U
3242	CA-SBR-10746H	Historic	Mine, Claim	U
3243	CA-SBR-10747H	Historic	Mine, Prospect	U
3244	CA-SBR-10748H	Historic	Mine, Claim	U
3246	CA-SBR-10749H	Historic	Mine, Prospect	U
3247	CA-SBR-10750H	Historic	Mine, Prospect	U
3248	CA-SBR-10751H	Historic	Mine, Claim	U
3249	CA-SBR-10752H	Historic	Mine, Prospect	U
3250	CA-SBR-10753H	Historic	Mine, Claim	U
3251	CA-SBR-10754H	Historic	Mine, Claim	U
3252	CA-SBR-10755H	Historic	Mine, Claim	U
3253	CA-SBR-10756H	Historic	Mine, Prospect	U
3254	CA-SBR-10757H	Historic	Mine, Claim	U
3255	CA-SBR-10758H	Historic	Mine, Claim	U
3256	CA-KER-2343H	Military	Inactive Building/Facility	U
3257	CA-SBR-10759H	Historic	Mine, Claim	U
3258	CA-SBR-10760H	Historic	Mining Feature	U
3259	CA-SBR-10761H	Historic	Mine, Claim	U
3260	CA-SBR-10762H	Historic	Mine, Claim	U
3261	CA-SBR-10763H	Historic	Historic Period Refuse Deposit	U
3262	CA-SBR-10764H	Historic	Mine, Prospect	U
3263	CA-SBR-10765H	Historic	Historic Period Refuse Deposit	U
3264	CA-SBR-10766H	Historic	Historic Period Refuse Deposit	U
3265	CA-SBR-10767H	Historic	Mine, Claim	U
3266	CA-KER-6076H	Historic	Historic Period Refuse Deposit	U
3267	CA-SBR-10768H	Historic	Historic Period Refuse Deposit	U
3268	CA-SBR-10769H	Historic	Mine, Prospect	U
3269	CA-SBR-10770H	Historic	Mine, Prospect	U
3270	CA-SBR-10771H	Historic	Mine, Claim	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3271	CA-SBR-10772H	Historic	Mine, Claim	U
3272	CA-SBR-10773H	Historic	Historic Period Refuse Deposit	U
3273	CA-KER-6309/H	Historic	Historic Period Refuse Deposit	U
3274	CA-KER-6317	Prehistoric	Hearth/Roasting Pit	U
3275	CA-KER-6318	Prehistoric	Hearth/Roasting Pit	U
3276	CA-KER-6319	Prehistoric	Hearth/Roasting Pit	U
3277	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3278	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3279	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3280	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3281	CA-SBR-10790H	Historic	Historic Period Refuse Deposit	U
3282	CA-SBR-XXXX	Military	Inactive Building/Facility – Target	U
3283	CA-KER-XXXX	Prehistoric	Temporary Camp	I
3284	CA-KER-XXXX	Prehistoric	Lithic Deposit	I
3285	CA-LAN-2986H	Historic	Historic Period Refuse Deposit	U
3286	CA-KER-6050H	Historic	Historic Period Refuse Deposit	U
3287	CA-KER-6051	Prehistoric	Temporary Camp	U
3288	CA-KER-6052	Prehistoric	Temporary Camp	U
3289	CA-KER-6053	Prehistoric	Lithic Deposit	U
3290	CA-KER-6058	Prehistoric	Temporary Camp	U
3291	CA-KER-6057H	Historic	Historic Period Refuse Deposit	U
3292	CA-KER-6056H	Historic	Historic Period Refuse Deposit	U
3293	CA-KER-6054	Prehistoric	Lithic Deposit	U
3294	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3295	CA-KER-5316/H	Prehistoric	Temporary Camp	U
3296	CA-SBR-XXXX	Prehistoric	Hearth/Roasting Pit	U
3298	CA-LAN-XXXX	Prehistoric	Lithic Deposit	U
3299	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3300	CA-KER-6174	Prehistoric	Lithic Deposit	U
3301	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3302	CA-KER-6302H	Historic	Historic Period Refuse Deposit	U
3303	CA-KER-XXXX	Prehistoric	Hearth/Roasting Pit	U
3304	CA-LAN-1283/H	Historic	Historic Period Refuse Deposit	U
3305	CA-LAN-1283/H	Historic	Historic Period Refuse Deposit	U
3306	CA-LAN-1283/H	Historic	Historic Period Refuse Deposit	U
3307	CA-LAN-1283/H	Historic	Historic Period Refuse Deposit	U
3308	CA-LAN-1283/H	Historic	Historic Period Refuse Deposit	U
3309	CA-KER-6490H	Historic	Homesite/Homestead	U
3310	CA-KER-6549H	Historic	Homesite/Homestead	U
3311	CA-SBR-10777H	Historic	Mine, Prospect	U
3312	CA-LAN-2972H	Historic	Historic Period Refuse Deposit	U
3313	CA-LAN-2978	Prehistoric	Lithic Deposit	U
3315	CA-SBR-10785H	Historic	Mine, Prospect	U
3316	CA-KER-6176	Prehistoric	Lithic Deposit	U
3318	CA-SBR-11261H	Historic	Historic Period Refuse Deposit	U
3319	CA-SBR-11262H	Historic	Historic Period Refuse Deposit	U
3321	CA-KER-XXXX	Historic	Agricultural Feature, Irrigation System	U
3322	CA-KER-XXXX	Historic	Agricultural Feature, Well	U
3323	CA-SBR-10797H	Historic	Mine, Claim	U
3324	CA-KER-XXXX	Military	Inactive Building/Facility – Foundation/Ruins	U
3325	CA-KER-3325H	Historic	Agricultural Feature, Well	U
3326	CA-KER-6119H	Historic	Agricultural Feature, Well	U
3327	CA-KER-6124H	Historic	Agricultural Feature, Well	U
3328	CA-KER-6123H	Historic	Agricultural Feature, Well	U
3329	CA-KER-6122	Prehistoric	Lithic Deposit	I
3330	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3331	CA-KER-6408	Prehistoric	Temporary Camp	U
3332	CA-KER-6409	Prehistoric	Temporary Camp	U
3333	CA-KER-6611H	Historic	Historic Period Refuse Deposit	I
3334	CA-KER-6612H	Historic	Historic Period Refuse Deposit	I

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3335	CA-KER-'XXXX	Historic	Historic Period Refuse Deposit	U
3336	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3337	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3338	CA-KER-'XXXX	Prehistoric	Lithic Deposit	U
3339	CA-KER-'XXXX	Prehistoric	Roasting Pit/Hearth	U
3340	CA-KER-6334	Prehistoric	Hearth/Roasting Pit	U
3341	CA-KER-6335	Prehistoric	Hearth/Roasting Pit	U
3342	CA-KER-6336	Prehistoric	Hearth/Roasting Pit	U
3343	CA-KER-6337	Prehistoric	Hearth/Roasting Pit	U
3344	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3345	CA-KER-XXXX	Prehistoric	Roasting Pit/Hearth	U
3346	CA-KER-XXXX	Prehistoric	Roasting Pit/Hearth	U
3347	CA-KER-6410	Prehistoric	Lithic Deposit	U
3348	CA-KER-XXXX	Prehistoric	Roasting Pit/Hearth	U
3349	CA-KER-XXXX	Prehistoric	Roasting Pit/Hearth	U
3350	CA-SBR-11274H	Historic	Historic Period Refuse Deposit	U
3351	CA-SBR-XXXX	Historic	Mine, Prospect	U
3352	CA-KER-4752/H	Historic	Historic Period Refuse Deposit	U
3353	CA-KER-6233	Prehistoric	Temporary Camp	U
3354	CA-KER-6224	Prehistoric	Temporary Camp	U
3355	CA-KER-6225	Prehistoric	Lithic Deposit	U
3356	CA-KER-6226	Prehistoric	Lithic Deposit	U
3357	CA-KER-6227	Prehistoric	Temporary Camp	U
3358	CA-KER-6405	Prehistoric	Temporary Camp	U
3359	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3360	CA-KER-6296H	Historic	Historic Period Refuse Deposit	U
3361	CA-KER-6297H	Historic	Historic Period Refuse Deposit	U
3362	CA-KER-6298H	Historic	Survey Marker/Site	U
3363	CA-SBR-11262/H	Prehistoric	Lithic Deposit	U
3364	CA-KER-6305H	Prehistoric	Lithic Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3365	CA-LAN-'XXXX	Prehistoric	Cremation	U
3366	CA-LAN-XXXX	Prehistoric	Hearth/Roasting Pit	U
3367	CA-KER-XXXX	Historic	Mine, Prospect	U
3368	CA-KER-6315H	Historic	Historic Period Refuse Deposit	U
3369	CA-KER-6314H	Historic	Historic Period Refuse Deposit	U
3370	CA-KER-6313H	Historic	Historic Period Refuse Deposit	U
3371	CA-KER-6311H	Historic	Historic Period Refuse Deposit	U
3372	CA-KER-6312H	Historic	Historic Period Refuse Deposit	U
3373	CA-LAN-3260	Historic	Historic Period Refuse Deposit	U
3374	CA-LAN-3261H	Historic	Historic Period Refuse Deposit	U
3375	CA-KER-525/H	Historic	Historic Period Refuse Deposit	U
3376	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3377	CA-KER-6547	Prehistoric	Roasting Pit/Hearth	U
3379	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3380	CA-KER-6548H	Historic	Historic Period Refuse Deposit	U
3381	CA-LAN-XXXX	Historic	Survey Site	U
3382	CA-LAN-3267	Prehistoric	Lithic Deposit	U
3383	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3384	CA-LAN-XXXX	Historic	Homesite	U
3385	CA-KER-6299H	Historic	Historic Period Refuse Deposit	U
3386	CA-KER-6300H	Military	Inactive Building/Facility – Target	U
3387	CA-KER-6310H	Historic	Historic Period Refuse Deposit	U
3388	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3389	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3390	CA-KER-XXXX	Historic	Homesite	U
3391	CA-KER-XXXX	Military	Inactive Building/Facility - Abandoned Target	U
3392	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3393	CA-SBR-11473H	Historic	Agricultural Feature, Well	U
3394	CA-KER-6301H	Historic	Agricultural Feature, Well	U
3395	CA-LAN-3291H	Historic	Inactive Building/Facility – Foundation/Ruins	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3396	CA-KER-6557	Prehistoric	Lithic Deposit	U
3398	CA-KER-6554H	Historic	Historic Period Refuse Deposit	U
3399	CA-KER-6555	Prehistoric	Temporary Camp	U
3400	CA-KER-6556	Prehistoric	Hearth/Roasting Pit	U
3401	CA-KER-6520	Prehistoric	Hearth/Roasting Pit	U
3402	CA-KER-6558	Prehistoric	Hearth/Roasting Pit	U
3403	CA-KER-6559	Prehistoric	Temporary Camp	U
3405	CA-KER-6544	Prehistoric	Roasting Pit/Hearth	U
3406	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3407	CA-KER-6560H	Historic	Historic Period Refuse Deposit	U
3408	CA-KER-6561	Prehistoric	Lithic Deposit	U
3409	CA-KER-6562H	Historic	Historic Period Refuse Deposit	U
3410	CA-KER-6563H	Historic	Historic Period Refuse Deposit	U
3411	CA-KER-6545H	Historic	Historic Period Refuse Deposit	U
3412	CA-KER-6546H	Historic	Historic Period Refuse Deposit	U
3413	CA-LAN-3262H	Historic	Historic Period Refuse Deposit	U
3414	CA-LAN-3263H	Historic	Historic Period Refuse Deposit	U
3415	CA-LAN-3264H	Historic	Roads and Trails – Bridge	U
3416	CA-LAN-3265H	Historic	Historic Period Refuse Deposit	U
3417	CA-LAN-3276H	Historic	Historic Period Refuse Deposit	U
3419	CA-LAN-3277	Prehistoric	Temporary Camp	U
3420	CA-LAN-3279	Prehistoric	Lithic Deposit	U
3421	CA-LAN-3280H	Historic	Historic Period Refuse Deposit	U
3422	CA-LAN-3281	Prehistoric	Lithic Deposit	U
3423	CA-LAN-1317/H	Historic	Historic Period Refuse Deposit	U
3424	CA-LAN-3282	Prehistoric	Lithic Deposit	U
3425	CA-LAN-3283/H	Prehistoric	Lithic Deposit	U
3426	CA-LAN-3283/H	Historic	Historic Period Refuse Deposit	U
3427	CA-LAN-3284H	Historic	Historic Period Refuse Deposit	U
3428	CA-LAN-3285H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3429	CA-KER-6411H	Historic	Historic Period Refuse Deposit	U
3430	CA-KER-6412	Prehistoric	Hearth/Roasting Pit	U
3431	CA-KER-6413	Prehistoric	Temporary Camp	U
3432	CA-KER-6414	Prehistoric	Lithic Deposit	U
3433	CA-KER-3271H	Historic	Homesite/Homestead	U
3434	CA-KER-3272H	Historic	Homesite/Homestead	U
3435	CA-KER-3273H	Historic	Homesite/Homestead	U
3436	CA-SBR-11569H	Historic	Mine, Open Pit	U
3437	CA-SBR-11570H	Historic	Mine, Open Pit	U
3438	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3439	CA-LAN-3274H	Historic	Historic Period Refuse Deposit	U
3440	CA-KER-6334	Prehistoric	Roasting Pit/Hearth	U
3441	CA-KER-6335	Prehistoric	Roasting Pit/Hearth	U
3442	CA-KER-6336	Prehistoric	Roasting Pit/Hearth	U
3443	CA-KER-6337	Prehistoric	Roasting Pit/Hearth	U
3444	CA-KER-6407H	Historic	Historic Period Refuse Deposit	U
3445	CA-KER-6673	Prehistoric	Roasting Pit/Hearth	U
3446	CA-KER-6676H	Historic	Historic Period Refuse Deposit	U
3447	CA-KER-6510H	Historic	Historic Period Refuse Deposit	U
3448	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3449	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3450	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3451	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3452	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3453	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3454	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3455	CA-LAN-XXXX	Prehistoric	Temporary Camp	U
3456	CA-KER-6406	Prehistoric	Lithic Deposit	U
3457	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3458	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3459	CA-KER-6674H	Military	Historic Period Refuse Deposit	U
3460	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3461	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3462	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3463	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3464	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3465	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3466	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3467	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3468	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3469	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3470	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3471	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3472	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3473	CA-LAN-3266H	Military	Inactive Building/Facility - Abandoned Target	U
3474	CA-LAN-3261H	Historic	Historic Period Refuse Deposit	U
3486	CA-KER-6565H	Historic	Historic Period Rock Feature	U
3487	CA-KER-6607H	Historic	Mine, Prospect	I
3488	CA-KER-6606H	Historic	Mine, Prospect	I
3489	CA-KER-6615	Prehistoric	Lithic Deposit	U
3490	CA-KER-6616	Prehistoric	Roasting Pit/Hearth	E
3491	CA-KER-6617H	Historic	Homesite	U
3492	CA-KER-6614H	Historic	Historic Period Refuse Deposit	U
3493	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3494	CA-SBR-XXXX	Prehistoric	Temporary Camp	U
3495	CA-SBR-XXXX	Prehistoric	Temporary Camp	U
3496	CA-SBR-XXXX	Prehistoric	Temporary Camp	U
3497	CA-SBR-XXXX	Historic	Historic Period Refuse Deposit	U
3498	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3499	CA-SBR-XXXX	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3500	CA-SBR-XXXX	Prehistoric	Temporary Camp	U
3501	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3502	CA-SBR-XXXX	Prehistoric	Temporary Camp	U
3503	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3504	CA-SBR-XXXX	Historic	Mine, Camp	U
3505	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3506	CA-KER-XXXX	Prehistoric	Temporary Camp	U
3507	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3508	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3509	CA-KER-XXXX	Prehistoric	Temporary Camp	U
3510	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3511	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3512	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3513	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3514	CA-KER-XXXX	Prehistoric	Temporary Camp	U
3515	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3516	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3517	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3518	CA-KER-XXXX	Prehistoric	Roasting Pit/Hearth	U
3519	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3520	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3521	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3522	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3523	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3524	CA-SBR-XXXX	Prehistoric	Temporary Camp	U
3525	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3526	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3527	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3528	CA-SBR-XXXX	Prehistoric	Lithic Deposit	U
3530	CA-KER-6677H	Historic	Historic Period Refuse Deposit	U

Table G-1 (Continued). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3531	CA-KER-6675H	Historic	Historic Period Refuse Deposit	U
3532	CA-KER-XXXX	Prehistoric	Roasting Pit/Hearth	U
3533	CA-KER-XXXX	Prehistoric	Temporary Camp	U
3534	CA-KER-6678	Prehistoric	Roasting Pit/Hearth	U
3535	CA-KER-'6679	Prehistoric	Roasting Pit/Hearth	U
3536	CA-KER-6680H	Historic	Historic Period Refuse Deposit	U
3537	CA-KER-6681	Prehistoric	Lithic Deposit	U
3538	CA-KER-6682	Prehistoric	Temporary Camp	U
3539	CA-KER-'6683	Prehistoric	Temporary Camp	U
3540	CA-SBR-XXXX	Military	Inactive Building/Facility - Abandoned Target	U
3541	CA-SBR-XXXX	Military	Inactive Building/Facility - Abandoned Target	U
3542	CA-SBR-XXXX	Military	Inactive Building/Facility - Abandoned Target	U
3544	CA-KER-6684H	Military	Inactive Building/Facility - Foundations/Ruins	U
3547	CA-SBR-XXXX	Military	Inactive Building/Facility - Abandoned Target	U
3550	CA-KER-6613H	Historic	Historic Period Refuse Deposit	U
3551	CA-KER-6618	Prehistoric	Utilized Rock Shelter	U
3552	CA-LAN-3286	Historic	Historic Period Refuse Deposit	U
3553	CA-KER-6685	Prehistoric	Temporary Camp	U
3554	CA-KER-6686	Prehistoric	Lithic Deposit	U
3555	CA-KER-6687	Prehistoric	Temporary Camp	U
3556	CA-KER-6690	Prehistoric	Lithic Deposit	U
3557	CA-KER-6691	Prehistoric	Temporary Camp	U
3558	CA-KER-6692H	Historic	Historic Period Refuse Deposit	U
3559	CA-KER-6693	Prehistoric	Temporary Camp	U
3560	CA-KER-6694	Prehistoric	Temporary Camp	U
3561	CA-KER-6695	Prehistoric	Temporary Camp	U
3562	CA-LAN-XXXX	Historic	Mine, Prospect	U
3563	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3564	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3565	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U

Table G-1 (Concluded). Archaeological Sites and Types on Edwards Air Force Base (EAFB)

EAFB Site Number	Trinomial	Era	Type	NRHP Eligibility
3566	CA-LAN-XXXX	Prehistoric	Lithic Deposit	U
3567	CA-LAN-XXXX	Historic	Historic Period Refuse Deposit	U
3568	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3569	CA-KER-XXXX	Historic	Mine, Camp	U
3570	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3571	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3572	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3573	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3574	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3575	CA-KER-XXXX	Prehistoric	Lithic Deposit	U
3576	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3577	CA-KER-XXXX	Prehistoric	Temporary Camp	U
3578	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U
3579	CA-LAN-XXXX	Historic	Road/Trail	U
3580	CA-LAN-XXXX	Historic	Road/Trail	U
3581	CA-KER-XXXX	Historic	Road/Trail	U
3582	CA-KER-XXXX	Historic	Road/Trail	U
3583	CA-KER-XXXX	Historic	Road/Trail	U
3584	CA-KER-XXXX	Historic	Road/Trail	U
3585	CA-KER-XXXX	Historic	Road/Trail	U
3654	CA-KER-XXXX	Historic	Historic Period Refuse Deposit	U

Notes:
1. E – Eligible
2. EAFB – Edwards Air Force Base
3. I – Ineligible
4. NL – National Historic Landmark
5. NRHP – National Register of Historic Places
6. P – Potentially eligible
7. PB – Precision Bombing area
8. U – Unevaluated (no SHPO coordination)
9. WWII – World War II

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APPENDIX H
BASE HISTORIC CONTEXT

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BASE HISTORIC CONTEXT

The information in this chapter is condensed from the following documents. Where references are cited in this text, please refer to the following documents for complete reference information.

C. J. Parker, M. D. Pittman, L. M. Ramirez, M. R. Ronning, and J. Underwood
1997 *Cultural Resources Overview and Management Plan for Edwards AFB, California, Volume 1: Overview of Prehistoric Cultural Resources. Computer Sciences Corporation, Edwards Air Force Base, California.* Submitted to the Air Force Flight Test Center, Base Historic Preservation Office, Edwards Air Force Base, California, Contract No. F04611-92-C-0045. On file at the Base Historic Preservation Office, Edwards Air Force Base, California.

Earle, D. D., K. A. Lark, C. J. Parker, M. R. Ronning, and J. Underwood
1998 *Cultural Resources Overview and Management Plan for Edwards AFB, California, Volume 2: Overview of Historic Cultural Resources*, Computer Sciences Corporation, Edwards Air Force Base, California. Submitted to the Air Force Flight Test Center, Base Historic Preservation Office, Edwards Air Force Base, California, Contract No. F04611-92-C-0045. On file at the Base Historic Preservation Office, Edwards Air Force Base, California.

1.0 SETTING

The Antelope Valley is the westernmost extension of the Mojave Desert/Great Basin. It consists of a V-shaped area of bajadas bounded by the Tehachapi Mountains to the northwest and the San Gabriel Mountains to the southwest, gradually widening to join the greater Mojave Desert to the east. On the eastern edge of the Antelope Valley, one finds hills of gradually increasing significance until the concept of a valley is no longer tenable. A reasonable, albeit arbitrary, boundary for this eastern side could be a more or less north-south line, based on altitude, from the vicinity of the community of Llano near the east bank of Big Rock Creek in the San Gabriel Mountain foothills; through Adobe Mountain (3,458 feet), the Kramer Hills, and Kramer Junction; and following United States (U.S.) Highway 395 north to the Rand Mountains (4,740 feet) near Randsburg.

The Antelope Valley, like the rest of the Mojave Desert, is characterized by interior draining basins and ranges similar to other portions of the Great Basin. The lowest lying areas within Antelope Valley, as defined here, are encompassed by three Pleistocene playas or dry lakes. From east to west these are Rogers (earlier called Muroc), Buckhorn, and Rosamond Dry Lakes. The largest of these, Rogers Dry Lake, lies at an elevation of 2,270 feet. These are all within the current boundaries of Edwards Air Force Base (AFB) and are composed of silts and fine clays that are essentially water impermeable and support no vegetation.

Upslope from these lakes are various ridge systems and hills. They range in elevation up to about 3,400 feet, the highest being Leuhman Ridge and Red Butte. Most of these hills are primarily composed of coarse quartz monzonite (a granitic rock) with minor amounts of pegmatite. Some formations, like Red Hill and Red Butte, are composed of red rhyolite. Relatively small outcrops of sandstone, tuff, limestone, and basalt also occur. Most of the base consists of unconsolidated Quaternary alluvium composed of sands, silts, gravels, and poorly developed soils (Dibblee 1960, 1967). In lower lying areas, well-developed caliche layers are found between 50 and 150 centimeters below the soil surface. These date to the mid to late Pleistocene; no cultural material is found beneath them.

Most of the Edwards AFB facilities are located at Main Base and South Base, on the west margin of Rogers Dry Lake at an elevation of 2,270 feet. Edwards AFB is served by several communities. The community of Rosamond is approximately 15 miles to the west of Main Base, on Highway 14. The town

of Mojave, located at the junction of Highways 14 and 58, is about 27 miles from Main Base by way of the north gate and Highway 58. The town of Boron is approximately 15 miles west of the north gate on Highway 58. The sprawling adjacent cities of Lancaster and Palmdale are approximately 25 miles south of the base via Highway 14. Los Angeles is approximately 100 miles to the south via Highway 14 and Interstate Highway 5, while Bakersfield is approximately 85 miles to the northwest via Highway 58. Barstow is approximately 55 miles east of the base, also on Highway 58.

Precipitation varies from year to year, but averages just greater than 5 inches per year at Edwards AFB. This comes mostly in the winter as relatively gentle rain originating in the Gulf of Alaska. In August, September, and October there is the possibility of tropical thunderstorms originating in Mexico. The prevailing wind is from 240 degrees (southwest) for all 12 months of the year. Maximum wind speed is 50 knots or above for all of the 12 months. In March, the maximum expected wind is 64 knots, and in September and October, the maximum expected wind is 65 knots (hurricane force) (Office of the Staff Meteorologist, Edwards AFB 1995).

Summers are hot with an average maximum temperature of approximately 90 degrees Fahrenheit in June, 98 degrees in July, and 96 degrees in August. The extreme maximum temperatures are above 100 degrees Fahrenheit for April through October, with a peak of 113 degrees expected in June and July. The winter nighttime low temperatures typically dip down to freezing for almost 20 days in December and January, and extreme minimum temperatures reach down to 7 degrees in December and 3 degrees in January (Office of the Staff Meteorologist, Edwards AFB 1995).

Despite the relatively low rate of precipitation and high rate of evaporation, the Pleistocene basins typically contain significant amounts of water in the winter. In wet years, they become very shallow lakes for many months. In the 1994-95 rainy season, for example, Rosamond Dry Lake was filled up to the vegetation line from December until the beginning of April, and contained significant amounts of water until May. Because they are nearly perfectly flat, when filled to the vegetation line, they are only 1 or 2 feet deep. The geography of the Edwards AFB area is visually dominated by these Pleistocene playas. These are dramatic sights when dry, but even more so in the wet season when they are full of water.

Before the arrival of Euro-Americans, the Antelope Valley contained numerous springs, seeps, and marshy areas such as those at Willow Springs and Lovejoy Springs. In the early part of the century, the water table was between 20 and 50 feet below the surface throughout most of the Antelope Valley. By the 1940s the water table had sunk to 400 to 600 feet below the surface (Stark and Fuller 1994). This was primarily the result of extensive alfalfa farming (Hudson-West 1994; Stark and Fuller 1994). Some springs along the San Andreas rift at the base of the San Gabriel Mountains are still active, but almost all other springs, seeps, and marshes in the Antelope Valley have been dry for many years (Stark and Fuller 1994). There are a number of dry springs on the base, for example at Indian Water near Rosamond, in the Kramer Hills, and at Buckhorn Springs (Norwood 1996c).

The water budget for the base consists of two fractions. The first, of minor significance, is the rain that actually falls on the base per se. Typically, this is retained as soil moisture; but during heavy rains, it may run off as sheet wash or run down arroyos to reach the playas. The other fraction consists of runoff from the relatively impermeable Tehachapi and San Gabriel Mountains. The subsurface aquifer under the Antelope Valley is primarily fed from these sources (Dibblee 1960, 1967).

Edwards AFB overlies two separate and distinct hydrologic basins: the Lancaster and North Muroc Water Basins. These basins are divided by a bedrock barrier known as the Rogers Lake Barrier. This Rogers Lake Barrier is an east-west trending subsurface formation that runs from the vicinity of East Camp to North Base. The Lancaster Water Basin provides the primary recharge for the North Muroc Water Basin

via a subsurface flow across the top of the Rogers Lake Barrier. If the water level in the Lancaster Water Basin drops below the Rogers Lake Barrier, the North Muroc Water Basin ceases to receive recharge from the Lancaster Water Basin. Therefore, a drop in the Lancaster Water Basin results in an eventual drop in the water table of the North Muroc Water Basin. Water drawn from the Lancaster Water Basin is of generally better quality, while water drawn from the North Muroc Water Basin contains a higher percentage of fluoride, chloride, sulfates, and other dissolved solids (Thompson 1929).

1.1 Paleoenvironments of Edwards Air Force Base

For the reconstruction of the prehistory of the western Mojave and Edwards AFB regions, the refinement of paleoclimate and paleoenvironmental information has been critical. Of particular importance has been the reconstruction of drought chronologies for the region in Holocene times, taking particular advantage of tree-ring, palynological, and pack rat midden investigations to reconstruct vegetation and climate change. Interpretations of cultural developments in the Gypsum Period (see Paragraph 2.2.4) and later times, including the timing and nature of the Numic Expansion, hinge on improved paleoclimate data. These results clearly indicate a rapid increase in temperatures and decrease in precipitation at the close of the Pleistocene. It is not surprising that the very early Holocene appears to have been a period of climatic instability but the finding of high (though extremely variable) rainfall between 9,300 and 7,900 B.P. (before present) is of interest. The continued decline in precipitation after that time must be considered in concert with modeled paleoclimatic histories of the Tehachapi and San Gabriel Mountains to determine its hydrologic implications for the reduction and splitting of former Thompson Lake. Despite Baumhoff's (1978:18) admonition that vegetation is the only important factor to consider relative to aboriginal California ecology, the reduction in the size of this lake may also have been important to human mobility in the Antelope Valley.

Although modeled temperatures appear to have increased dramatically between about 12,100 and 10,100 B.P., they fluctuated greatly but did not increase significantly until rising abruptly again after about 7,900 B.P., and then oscillating considerably for the balance of the Holocene. The highly variable modeled temperatures and precipitation of the middle Holocene simply do not match Antevs' (1953) view of a continuously hot and dry Altithermal.

Of particular cultural interest are the relatively large increases in modeled precipitation denoted for roughly 1,000-year periods peaking at about 3,900 and 1,900 B.P. and the relatively severe drop in precipitation specified for about 500 B.P. Correlations between these conditions, faunal carrying capacity, and human land use strategies are, however, beyond the scope of this study and must be made on the basis of additional cultural and environmental data.

The paleoclimatic conditions of various parts of the southern Mojave Desert differed according to their latitude, longitude, and relationship to topographic features. Nonetheless, the atmospheric circulation patterns that dominate the southwest Mojave produced a measure of concordance on a regional level among proxy measures of late Pleistocene and Holocene environmental changes at Searles Lake, China Lake, Death Valley, Lake Mojave, and Lake Thompson. It remains necessary, however, to consider the local effects of climate change if meaningful inferences about human responses to climatically induced environmental change are to be derived.

During the late Pleistocene, basins overflowed and joined rivers, woodlands existed in the now treeless desert, and herds of camels, horses, and mammoths roamed the fertile basins, now dry. As the glaciers retreated (12,100 to 10,100 B.P.), leaving their eminent signature in the desiccation of Lake Thompson and elsewhere, plants and animals began the long journey northward and to higher elevations, and humans experienced the end of a comparatively stable era and the beginning of a subsequent period of frequent and still substantial environmental changes.

Although on a large scale aridity generally persisted after the end of the Wisconsin glaciation, archeoclimatic modeling suggests that major short-term reversals of this trend took place from 10,100 to 6,700 years B.P. After 6,700 B.P. the modeling results draw a picture of an extremely variable climatic regime with numerous periods of increased moisture or aridity. Evidence supporting the changes indicated by the macrophysical modeling of area precipitation is provided by analyses of plant macrofossils and lake level fluctuations in the southern portion of Mojave Desert. It appears that the present day floral and faunal composition of the Antelope Valley likely did not become established until the late Holocene (i.e., after 4,300 B.P.).

1.2 Cultural Setting

A generally accepted prehistoric cultural chronology for the western Mojave region has yet to be developed, partially because there are few local chronometric data to use as a foundation. Consequently, most proposed local culture histories have been borrowed from other regions, with minor modifications based on sparse local data. The most common pattern is the tripartite Early/Middle/Late sequence familiar in Californian culture history, often with the addition of a Post-Contact (Norwood 1987c) or Protohistoric (Sutton 1988) Period. The differences between the sequences are mainly in the inclusion of various horizons, technologies, or stages. Instead of the tripartite chronology, the chronology discussed on the following pages is based on Warren's (1984; Warren and Crabtree 1987) Lake Mojave, Pinto, Gypsum, Saratoga Springs, and Protohistoric Periods, with the addition of a Fluted Point Period before Lake Mojave. These periods are partially based on time-sensitive projectile points and shell bead sequences.

1.2.1 Fluted Point Period – Circa 10,000 to 8,000 B.C.

The late Pleistocene between approximately 10,000 B.C. (before Christ) and 8,000 B.C. is characterized by warming temperatures and a corresponding glacial retreat and rise in sea level (Moratto 1984). Large pluvial lakes, which had formed in basin areas under glacial conditions, reached their maximum size during the wetter conditions between 10,000 and 9,000 B.C. and then began to recede as the climate continued to grow warmer (Moratto 1984). Mojave Desert plants associated with colder Pleistocene environmental conditions, piñon and juniper, for example, also retreated upslope and were replaced by creosote and white bursage (Grayson 1993:199). This period also saw the extinction of Rancholabrean megafauna (Moratto 1984).

The primary diagnostic lithic artifact from this period is the Clovis Point, although Fluted Point Period assemblages also include crescents, gravers, perforators, scrapers, and choppers (Davis 1978). Fluted Point Period assemblages are found near lakeshores, in grassland areas, and in mountain passes and have been found in association with Rancholabrean fauna (Davis 1978). Davis (1978) proposes that people who produced Fluted Point Period assemblages in the Great Basin and along the Pacific Coast were foragers rather than big game hunters as people in the Southwest and Great Plains appear to have been (Moratto 1984).

Clovis points have been found north of the Tehachapi Mountains along the old shorelines of Tulare Lake in the southern San Joaquin Valley. At least two fluted points have been found in the Antelope Valley or the adjacent mountains (Glennan 1971a; Boyer and Underwood 1995).

1.2.2 Lake Mojave Period – Circa 8,000 to 5,000 B.C.

The climate during the Lake Mojave Period (which coincides with the Western Pluvial Lakes Tradition) was drier than during the previous Fluted Point Period, but still wetter than during the subsequent Pinto Period. As the Lake Mojave Period progressed, the pluvial lakes continued to shrink, forming marshes.

Finally, by circa 6,000 to 5,000 B.C., most of the pluvial lakes were reduced to playas (Moratto 1984; Grayson 1993:194-195; Mehringer 1986:49). This continuing desiccation also caused the replacement of sage scrub by creosote and saltbush scrub in lower elevations of the Mojave Desert (Grayson 1993). In the Antelope Valley, Pleistocene Lake Thompson shrank to become the Rogers, Rosamond, and Buckhorn Dry Lake playas that exist today.

Most Lake Mojave Period sites that have been found within the northern Mojave Desert and southwestern Great Basin are associated with early Holocene lakeshores. Sutton stated (1988:30) that the subsistence strategy during this period was presumably one of hunting and utilization of lacustrine resources. The most representative sites from this time are associated with the shoreline of Pleistocene Lake Mojave (Campbell et al. 1937). Artifacts include percussion-flaked foliate points and knives, Lake Mojave and Silver Lake projectile points, stone crescents, and a developing, yet unspecialized, tool kit of scrapers, gravers, and perforating tools.

Lake Mojave lithic materials are primarily composed of microcrystalline raw materials (Gilreath et al. 1987; Byrd 1993). Groundstone artifacts were not considered part of the Lake Mojave cultural assemblage until recent fieldwork at Fort Irwin, California, identified millingstone artifacts in association with Lake Mojave assemblages (Basgall et al. 1988; McGuire and Hall 1988). Warren (1984) pointed out an apparent lack of technology directed at processing small seed resources during the Lake Mojave Period. He further stated that this reflects a generalized hunting and gathering subsistence system (1984:413).

Three separate sites at Edwards AFB (California-Kern [CA-KER]-1777, CA-KER-2059, and CA-KER-3361) produced three complete Silver Lake points and site CA-KER-1830 produced two complete Silver Lake points (Wessel 1990:49). Site CA-KER-2038 produced three complete Lake Mojave projectile points. Two isolated points and one isolated broken obsidian Lake Mojave point (Silsbee 1996a) have been identified. Two more point fragments produced obsidian hydration results that appear to place them within the Lake Mojave Period. The hydration rind on one fragment from site CA-KER-1830 is 8.4 microns wide (Wessel 1990:49) and on one fragment from site CA-KER-2817 is 9.3 microns wide (York 1991).

1.2.3 Pinto Period – Circa 5,000 to 2,000 B.C.

The Pinto Period coincides with what Antevs (1953) identified as the Altithermal climatic event, a period he characterized as being the hottest and driest of the Holocene, in his words a "long drought." Subsequent research has shown this period to have been much more variable in moisture and aridity than Antevs believed but nevertheless generally more arid than currently (Grayson 1993:215-216; Mehringer 1986:31, 49-50). It has been proposed that human populations were reduced in size and widely dispersed, due to the desiccation of wetter habitats during this event (Moratto 1984:546). Pinto Basin sites are typically associated with extinct rivers. The Pinto Period settlement pattern appears to indicate a change from a lacustrine adaptation to an adaptation based on subterranean or seasonal water sources as people moved away from the shores of now-dry lakes to intermittent stream drainages and springs (Warren 1984).

Two models of the Pinto Period have been advanced. The first proposes a hiatus of human occupation of the Mojave Desert, from 5,000 to 3,000 B.C., followed by an extremely early onset of the Little Pluvial at 3,000 B.C. (5,000 B.P.), with a return to wetter conditions and renewed human occupation of the region. The second sees cultural continuity from Lake Mojave times through the variably arid conditions of the mid-Holocene, marked by the Pinto culture. This variability in aridity may have included interludes of wetter conditions from 4,500 B.C. through 3,500 B.C. The Little Pluvial is seen as not occurring until the

end of the Pinto Period. This latter scenario is supported by the research of Warren (1984), Mehringer (1986), and others.

One major unresolved issue relating to this period is the variability in site assemblages between the eastern and western Mojave Desert, with a relative dearth in reported milling equipment for the latter area, but not the former. This has been cited as evidence for wetter conditions during this period, since an absence of hard seed processing under arid conditions seems extremely implausible (Warren 1984:413-414). A second important issue is the timing and intensity of wetter conditions during mid-Pinto times and its possible Archaeological expression. In any case, Pinto sites appear to be small, without midden, and seasonal, grouped around stream courses or springs, and indicating small and mobile user populations. Warren suggests that during the drier phases of the Pinto Period, these populations may have withdrawn to oases and the desert margin, and that the desert sites associated with Pinto technology represent ephemeral occupations during wetter times.

Lithic materials used during the Pinto Period range from obsidian and fine-grained basalts to progressively poorer-quality cherts, rhyolites and other igneous rocks, and quartz materials. The obsidian is generally sourced to the Coso volcanic fields north of Ridgecrest and is considered exotic, while most of the other materials are locally available. Norwood (1987c:104) stated that "basalts, rhyolites, and relatively tough materials..." typically are also favored, as demonstrated by the flaked lithic debitage. A review of materials recovered during excavation of Pinto Period sites in the Antelope Valley indicates that flaked tools are much less common during the Pinto Period than they are during the Saratoga Springs and later periods.

To date, at least 17 Pinto points are known from the base, and 6 sites have produced such points. In addition to these sites, possible Pinto Period sites occur most often in the northern portion of Edwards AFB. Norwood (1987c:104) noted that these lowland areas contain evidence of substantial occupations. If these occupations are coeval with the Pinto Period, they would contradict the hypothesis of smaller, more dispersed populations during the Pinto Period.

1.2.4 Gypsum Period – Circa 2,000 B.C. to A.D. 500

Gypsum Period settlement (circa 2,000 B.C. to anno domini [A.D.] 500) patterns appear to have been quite similar to those of the previous Pinto Period. However, milling equipment becomes more common on sites and the mortar and pestle are believed to have been introduced during this period (Wallace 1955:222-223; Warren 1984:416). It is hypothesized that this development may be associated with the beginning of large-scale tree crop utilization. Certain sites in the western Mojave Desert indicate that there may have been a relationship between mortar and pestle technology and groves of mesquite (*Prosopis glandulosa*) (Warren and Crabtree 1987:189). This suggests the exploitation of a new resource not present in the Archaeological record prior to the Gypsum Period. In addition, acorn exploitation may have played a role in expanded settlement of the margins of the southwestern Mojave Desert. Acorn processing appears to have been present near the southern California coast by 3,000 B.C. (Moratto 1984:127,134). It may have increased in importance in interior southern California in areas where yucca and/or agave exploitation had previously been established as key subsistence activities (Moratto 1984:151). Although oaks did not occur in the center of the Antelope Valley, they may have supplied a portable food source that could have been transported into the area from nearby mountain slopes to the south and west, as happened in late prehistoric times. The shift in settlement system complexity may have been in part a response to the proposed Little Pluvial, which Warren and Crabtree (Warren and Crabtree 1987:189) stated coincided with the beginning of the Gypsum Period. The expansion of native settlement in areas away from the coast in southern California appears to reflect the wetter conditions of the Little Pluvial and an expanded capability in exploiting terrestrial resources, particularly the acorn.

Further inland, the introduced piñon pine had already by this time reached the westernmost margins of the Mojave Desert, and pine nut exploitation offered a new staple food.

Interaction with coastal peoples becomes clearly evident during the Gypsum Period. Although not numerous, marine shell artifacts become widespread, indicating limited exchange with the southern California coast (Warren 1984).

During the Gypsum Period large villages or village complexes begin to appear in the Archaeological record. This reflects a transition from the earlier pattern of seasonal transhumance into one of semi- or fully-sedentary occupation within the Antelope Valley (Sutton 1988). Based on their large size and the wide variety of artifacts present at Mesquite Flat in Death Valley and Corn Creek Dunes in southern Nevada, Warren (1984:419) suggests that they were permanent, seasonally occupied sites. The earliest evidence for seasonal migration during the annual foraging round dates to the Gypsum Period in Death Valley (Wallace 1977:121), where the Mesquite Flat peoples extended their food-collecting activities into the surrounding mountains.

Historical linguistic evidence, as discussed by Moratto (1984:559-560, 567), suggests that by Gypsum times the Takic, Numic, and Tubatulabalic branches of Uto-Aztecan had become distinct, and that these groups were present in southern California. By the end of the Gypsum Period, Takic-speakers appear to have occupied much of their modern territory in southern California. Numic-speakers were present in the southeastern California deserts and/or the southern San Joaquin Valley, long before the expansion of Numic-speaking peoples east and northeast into the Great Basin, the so-called "Numic expansion." This latter migration may have commenced as late as A.D. 1000, as summarized by Moratto (1984:567-570).

The diagnostic projectile points associated with the Gypsum Period are the Humboldt, Gypsum Cave, Elko Eared, and Elko Corner-notched types (Warren 1984:414-415). Other temporal designations that may be correlated with Warren's Gypsum Period include the Early and Middle Rose Spring Periods (Lanning 1963; Clewlow, Heizer, and Berger 1970) and the Newberry Period (Bettinger and Taylor 1974).

Thirty-nine points considered diagnostic of the Gypsum Period have been found on Edwards AFB. They include 15 Humboldt points, 19 Elko points, and 5 Gypsum Cave points. If the 9 isolated finds are eliminated from the sample, the remaining 21 points come from 20 sites. Another six sites from the surrounding Antelope Valley have been radiocarbon-dated to the Gypsum Period, and obsidian hydration data suggest that there are a number of additional Gypsum Period sites. These data indicate that the Gypsum Period is well represented in the Archaeological record at Edwards AFB.

1.2.5 Saratoga Springs Period – Circa A.D. 500 to 1200

The gradual transition from larger dart points to the smaller types of projectile points associated with the use of the bow and arrow occurs at the transition from the Gypsum to the Saratoga Springs Periods. The bow and arrow had essentially replaced the atlatl, or spear thrower, by roughly A.D. 500 (Warren 1984:415). Shutler (1961) postulated the introduction of Anasazi ceramicware to the eastern Mojave Desert at about the same time, but Warren and Crabtree state that in the southern Mojave Desert, Southwestern influence appeared later, around A.D. 800 (Warren and Crabtree 1987:191).

A diffusion of Colorado River cultural traits, formerly called Hakataya, into the southern Mojave Desert occurred during the late Saratoga Springs Period. They replaced the earlier Anasazi influences in the eastern Mojave Desert, and eventually reached the eastern fringes of the Antelope Valley along the Mojave River (Warren 1984:420). However, Warren and Crabtree (1987:192) remarked that in comparison with the rest of the southern Mojave Desert, the Antelope Valley seems to have had less

influence from the Colorado River and more from the California coast, with cultural continuity visible from about A.D. 1.

During the first half of the Saratoga Springs Period (particularly circa A.D. 700 to 900) climatic conditions in southern California appear to have been particularly favorable. This was followed by the onset of a serious drought lasting from A.D. 900 to A.D. 1100, followed by a 100-year period of recovery (Stine 1993). This sequence of favorable mesic conditions followed by prolonged drought is believed to have caused some degree of native demographic crisis, as previously expanding populations were threatened by starvation. This is believed to have led to a more intensive use of nonstaple, alternative subsistence resources.

Sutton (1988:39) grouped the Gypsum, Saratoga Springs, and Shoshonean Periods into his Late Prehistoric Period, which he dated from 1,050 B.C. to A.D. 1650. Site California Los Angeles (CA-LAN)-828, on the south side of Buckhorn Lake on Edwards AFB, produced a number of shell bead artifacts that Chester King dated at circa 200 B.C. to A.D. 600 (King 1972; Warren 1984; Sutton 1988). Sutton discussed this site as part of a village complex, but noted that the site may indicate repeated use by groups based elsewhere (1988:74). Other researchers (Hector et al. 1988; York, Hull, and Christenson 1991) favor the multiple episode, temporary camp model.

Time-sensitive projectile points from this period include the Rose Spring and Cottonwood types. It has been argued that assemblages containing Cottonwood points and no Desert Side-notched points represent an earlier Saratoga Springs Period occupation than sites with both Cottonwood and Desert Side-notched points, and that the earlier occupation is associated with the Colorado River influence mentioned earlier (Warren 1984:423-424; Warren and Crabtree 1987:191).

The current projectile database for Edwards AFB includes four complete Rose Spring points and three projectile point fragments identified as Rose Spring. These seven items were recovered from six sites (CA-KER-562, CA-KER-672, CA-KER-1171, CA-KER-2533, CA-KER-2817, and CA-LAN-828). The Cottonwood series of projectile points is represented on Edwards by 25 complete points and 27 point fragments.

1.2.6 Post Saratoga Springs/Late Period – Circa A.D. 1200 to 1770

This period reflects a continuation of cultural developments established during the Saratoga Springs Period, but with adaptive modifications. At the beginning of Post-Saratoga Springs times, a second major drought, lasting from A.D. 1200 to A.D. 1350, occurred in southeastern California. With the waning of this drought, desert settlement is believed to have expanded. Bettinger and Baumhoff (1982) propose an expansion of Numic-speakers around A.D. 1200, possibly precipitated by this climatic crisis. Moratto (1984) has suggested an earlier beginning date for the expansion (A.D. 1000) perhaps associated with the immediately preceding drought. However, it is not currently known what effect the Numic expansion had on the Antelope Valley as Numic-speakers appear to have moved into the area during an earlier period. Grayson (1993:258-272) discusses historical linguistic and Archaeological data bearing on the reliability of this chronology for Numic expansion into the Great Basin, pointing out that it remains open to controversy.

Socioeconomic and sociopolitical organizations continued to increase in complexity during this period. By this time the “desert village” model of settlement, reflected in the shift from mobile foraging to sedentary collecting, appears to have become generalized in at least some areas of the western Mojave Desert. This resource circumscription model, as developed by Bettinger, sees population-driven sedentism and geographical limitation of gathering and hunting territories as accompanied by ever more intensive exploitation of a larger array of less attractive and less cost-efficient food resources. This

intensification of exploitative effort is seen as a necessary means of feeding larger populations in a fixed or shrinking territorial base. In other words, populations wring more resources out of a given land area by increasing their expenditure of gathering and processing effort per unit area.

Trade along the Mojave River affected the people of the eastern Antelope Valley, allowing participating groups to acquire considerable quantities of valuables. The presence of a hybrid desert/coastal subsistence adaptation in the Antelope Valley can be related to the importance of transverse range and Tehachapi Mountains upland and foothill resources, which were generally exploited following the southern California version of the California culture pattern (Earle, McKeehan, and Mason 1995). While Antelope Valley groups appear to have developed stronger ties with other more coastally-oriented groups, rather than with those in the deserts and Great Basin, the opposite appears to be true in Fremont Valley just to the north (Sutton 1987; Warren 1984:426). Sutton (1991:23) has argued that a frontier between Numic and Takic subsistence regimes appears to have been established by A.D. 1300, about the same time that the expansion of the Southwestern cultural presence reached its western extreme.

Following the return of wetter conditions around A.D. 1400, there is some evidence of a population increase in southern California.

Archaeological evidence indicates that the Late Period populations used a greater variety of subsistence resources. This included exploitation of both large and small mammal populations and, in some areas, fish. However, this apparent diversification of the resource base may be due to better preservation of Archaeological faunal remains than to an actual change in subsistence. The continuation of milling technologies reflect a persistence of seed collecting. The frequency of special purpose sites increase proportionally with a growing awareness of resource availability and potential (McIntyre 1990).

One complete Desert Side-notched point and three fragments identified as Desert Side-notched have been recovered from four sites on-base (CA-KER-672, CA-KER-1180, CA-KER-2025, and CA-LAN-769). If the distinction between sites with Desert Side-notched points and those containing only Cottonwood Triangulars is considered a temporal distinction, there is a drop in the number of points from the preceding Saratoga Springs to the Late Period, possibly indicating a drop in population in the later period.

1.2.7 Post-Contact Developments – A.D. 1770 to 1920

This period, after the commencement of Spanish settlement of coastal California, saw occasional military forays into the western Mojave Desert and Antelope Valley before the second decade of the 19th century. Pedro Fages (1772) and Father Garces (1776) were the earliest European visitors to the Antelope Valley. Father J. M. Zalvidea (1806) and Francisco Palomares (1808) also visited Serrano villages of Takic affiliation in southern Antelope Valley before they were missionized. The accounts of these expeditions indicate that the Antelope Valley was not depopulated before the early 19th century.

Beginning around 1811, Serrano and Tataviam village populations in the southern Antelope Valley were partially removed to the Franciscan Mission of San Fernando. By the 1830s and through much of the 19th Century, Numic-speaking Chemehuevi and related Southern Paiute moved southwestward and westward into the westernmost Mojave Desert and the Antelope Valley. In effect, they replaced the largely removed Takic-speaker population, although their numbers were not nearly so great as those of the former Takic-speaking Serrano and Tataviam residents. The Chemehuevi and related groups established small settlements or camps in the region for varying periods of time. From the 1830s through the end of the 1860s they were involved in livestock rustling raids. These Numic-speakers camped and hunted in the Edwards AFB area as late as the 1890s. Numic-speaking Kawaiisu are believed to have visited the Edwards AFB area on gathering trips subsequent to that date. The Kawaiisu of the Tehachapi region had maintained their traditional subsistence and settlement system until the coming of the

Americans to the area in the 1850s. Despite changes in their way of life brought by the American invasion, they continued to visit the desert after that time.

1.2.8 Native Use of the Edwards Air Force Base Area at Spanish Contact

The one named native site on Edwards AFB so far identified is Apavuchiveat, probably located at Buckhorn Springs. It was most likely of Desert (Vanyume) Serrano affiliation. It is not known if this was a camp or village site. In addition, Rosamond Dry Lake was named by Kitanemuk Serrano consultants. It is possible that the native site at Willow Springs, to the west of Rosamond, was of Kitanemuk Serrano affiliation, so the status of the Rosamond Dry Lake area is uncertain. It is suggested that the floor of the Antelope Valley beyond the Tehachapi foothills was generally used only seasonally by the Kitanemuk.

The rather fragmentary information available does not give a clear picture as to whether some groups may have occupied sites at or near Edwards AFB on a year-round basis, or whether politically independent settlements may have existed in the base area. A principal difficulty here is that the Spanish/Mexican missionary records and expedition accounts do not appear to deal with this specific area, indicating what classes of settlements existed in the more central portion of the valley floor.

One exception, however, is the travel diary of Father Garces, which may shed some light on the issue of native use of Edwards AFB. It appears from the diary that he passed across Edwards AFB on his return from the San Joaquin Valley to the Colorado River in May of 1776, despite the assumption of some writers that he passed to the north of the base (Coues 1900:306). His recounting of traveling from the eastern end of the Tehachapi Valley (Oak Creek Pass) 15 to 20 miles south-southeastward past several springs in a marshy alkaline plain and then encountering a nearby "plain" that had formerly been a lake, suggests his having passed through the low-lying central portion of the base. Father Garces then reached the Mojave River, claiming to have traveled only 12 to 14 miles southeast from the dry lake. This distance is rather too short, but it suggests that he didn't rejoin the Mojave River further north in the Barstow area. If this general route for Father Garces is correct, it is significant that he did not report seeing native people or rancherías during this portion of his journey.

It has been suggested above that the Buckhorn Springs area may have been used or visited by the Desert Serrano. Ethnohistoric testimony refers to the existence of a trail running northward from the village of Amutskupeat and the mouth of Big Rock Creek to Buckhorn Springs on Edwards AFB. A principal attraction of the low-lying southerly portion of the base around Buckhorn Springs was the extensive mesquite woodland there. This provided not only mesquite beans, pods, and fuel wood, but also sheltered attractive small game such as brush rabbits. Like the mesquite groves on the upper Mojave River, this resource would have been exploited particularly intensively in late summer, when the pods became ripe.

Another trail can be inferred to have run northward from the Buckhorn area and curved northwest between the Bissell and Rosamond Hills in the direction of Fremont Valley. It is also likely that some sort of foot trail or route connected Indian Springs at Red Hill, on the northwest margin of Rosamond Dry Lake, with Buckhorn Springs. There was also clearly a trail or route of some sort that connected the springs located on the fault line running east from Bean Spring and Willow Springs past Rosamond Spring and Indian Springs. This was followed by members of the Williamson Railroad Survey in 1853 (Williamson 1856).

During the middle and late 19th century Numic-speaking raiding and hunting parties used the Edwards AFB area. As was noted above, Paiute hunting parties were observed in the area as late as the 1890s. Other Numic-speakers were said to have visited Indian Springs in the late 1860s. The Williamson

Railroad Survey party observed the remains of mountain sheep butchering at Rosamond Spring in 1853, an activity that was probably related to Numic hunting in the base region.

Additional information has recently been provided by a Kawaiisu consultant regarding Kawaiisu gathering trips to the Edwards AFB area in historic times to gather mesquite products (Greene 1995). Despite the comments by Zigmond (1981) to the effect that the Kawaiisu had essentially abandoned exploitation of mesquite, this testimony indicates that the Edwards AFB area continued to be exploited by some Kawaiisu domestic groups.

1.2.9 Summary

Native American groups such as the Serrano, Desert Serrano, and Kitanemuk, the Tataviam, Kawaiisu, and Chemehuevi, are those most likely to have used or visited the Edwards AFB area in Late Prehistoric and Historic times. The base area appears to have been situated in a boundary zone between areas of Takic- and Numic-speaker occupation. Thus, the base area was located in a boundary zone between two distinct settlement and subsistence systems, one associated with montane and peri-coastal California, the other with the southwestern Great Basin. The California adaptation of Takic-speakers (and the Numic-speaking Tehachapi Mountains Kawaiisu) emphasized acorn exploitation and the occupation of permanent village sites. In the case of the Takic-speaking groups, this was associated with politically demarcated patriclan territories. The Great Basin adaptation of the Chemehuevi and related Southern Paiute groups was typified by exploitation of piñon and mesquite and smaller, more completely seasonal and geographically dispersed settlements occupied as part of a wider-ranging annual hunting and foraging round. The environment exploited by the Numic-speaking groups was much drier and was also characterized by a smaller areal extent of uplands capable of supporting piñon, juniper, or other woodlands species.

In the 18th century we can contrast, with the exception of the Kawaiisu, a Numic subsistence and settlement regime based on upland piñon, juniper, and the hunting of rabbits, hares, and even-toed hoofed mammal species, and lowland mesquite, yucca species, and hard seeds, with a Serrano system based on exploitation of a wide range of resources, including game species (rabbits, hares, even-toed hoofed mammals, and rodents), piñon, juniper, *Yucca whipplei*, islay (*Prunus*), hard seeds, and the acorn, found on the desert side of the transverse ranges of southern California. While the two adaptation systems had a number of important subsistence plant species in common, the California adaptation focused on acorn processing and consumption. This permitted the maintenance of larger local populations, and this system could be maintained on the desert edge and projected a limited distance into the desert. This was the case because Takic-speaking Serrano clan groups based at desert springs or on the desert portion of the Mojave River, but within a day or two walk of mountain slope acorn sources, appear to have used these as a staple. Father Garces' data on acorn use at the Mojave River villages, as well as information from the Palomares expedition account, certainly suggest this. Whether any permanent occupation of the Edwards AFB area, perhaps supported by such acorn importation, may have occurred is at present still unclear. If it did, the Buckhorn Springs area would have been the most likely site for such an occupation.

1.3 Historical Context

1.3.1 The Edwards Air Force Base Region After the Spanish Invasion of California (1769)

The Spanish conquest of California beginning in 1769 did not involve the actual occupation of the region surrounding Edwards AFB, since the western Mojave Desert lay beyond the limit of Spanish settlement. The Franciscan mission establishments depended on irrigation-based agriculture, and the civilian economy was oriented around grazing. Because areas were available for economic exploitation on the

Pacific Coast, the desert was seen as too difficult to exploit and too remote, despite the fact that settlers from Mexico were familiar with farming and grazing in arid areas.

Despite the trans-frontier status to which the desert region was relegated, it was intermittently visited by Spanish military expeditions during the era of imperial rule (1769 to 1821).

In July of 1806, a Spanish military expedition set out from Santa Barbara to search for runaway mission neophytes in the Southern San Joaquin Valley. Traveling through the Antelope Valley, the expedition passed a small settlement of Serrano-speakers gathering their guata crop near Little Rock Creek, southeast of modern Palmdale.

In November 1808, a second expedition was launched from the Newhall area into the Antelope Valley. Its purpose was to recapture runaway neophytes from the San Fernando Mission and bring to heel Quipagui, a notorious native chief who had established a little neophyte refugee "kingdom" in the Tehachapi Mountains (Cook 1960:256-257).

In 1819, the upper Mojave River east of Edwards AFB, was again visited by a military expedition, this time under Lieutenant Estudillo who was sent to curb alleged Mohave Indian attacks against local Serrano-speakers (Nuez 1819).

The American trapper and explorer, Jedediah Smith, passed through the western Mojave Desert and the Antelope Valley in 1826/1827. He visited and described a Vanyume Serrano encampment in the Victorville area and later journeyed across the southern Antelope Valley on the Atongaibit trail that Palomares had apparently traveled in 1808 (Smith 1977:132-133).

1.3.2 Exploration of the Edwards Air Force Base Area During the Early and Mid-Nineteenth Century

During the era of Mexican rule in California (1821 to 1846), the western Mojave Desert and the Edwards AFB area remained beyond the frontier of Hispanic settlement and stock raising, although several locations in the nearby southern San Joaquin Valley were apparently occupied by Californios in the early 1840s (Latta 1976:147). In 1844, the Antelope Valley was visited by an expedition under the command of John Fremont. The party passed to the west of Rosamond and the western boundary of modern Edwards AFB.

In the late winter of 1850, the Edwards AFB area was traversed by William Manly and John Rogers, members of an emigrant party that had blundered into Death Valley en route to northern California (Manly 1894; Johnson and Johnson 1987).

In 1853, the Antelope Valley was visited by an Army survey party dispatched to California by Secretary of War Jefferson Davis under mandate from Congress. The party, commanded by Lieutenant Williamson, was in charge of surveying possible routes for the Southern California leg of a proposed transcontinental railroad. No signs of pioneer settlement were observed in the base area, although at a spring near modern Rosamond, signs of camping by native stock raiders were observed. By 1855, settlers were noted by travelers at Elizabeth Lake and near Neenach, 15 miles to the northwest (Kip 1954:87-88).

1.3.3 The American Conquest of California, the Gold Rush Immigrant Influx into California, and the Mojave Desert Mining Frontier

The Gold Rush and the American conquest of California brought about the first permanent, nonnative settlement. Trails that crossed the Antelope Valley from San Francisquito Canyon began to be heavily used by traffic from Los Angeles to reach the San Joaquin Valley and San Francisco.

One of the fundamental motivations for the initial exploration of the western and central Mojave Desert was the search for mineral wealth. The efforts to develop mining operations in the region also led to the establishment or improvement of many of its transportation corridors.

By as early as the early 1850s, a number of prospectors had criss-crossed the desert regions of Southern California, in search of paying claims. The period from the beginning of the 1850s through the late 1860s was marked by a degree of insecurity in the Mojave Desert region, on account of the sometimes hostile acts of groups of Chemehuevi or Southern Paiutes who had moved westward into the western Mojave Desert by the 1840s.

During the period from the beginning of the Civil War through the arrival of the Southern Pacific Railroad in the Antelope Valley in 1876, the Antelope Valley region served as an access corridor to mining regions to the northwest and north. A principal mining center reached from Los Angeles during this era was Cerro Gordo, east of Owens Lake.

Dry-wash placer mining in the desert northeast of Mojave during the worldwide gold mining excitement of the early 1890s, led to the discovery of rich gold deposits in the Randsburg area in 1895. This in turn brought swarms of miners and prospectors into the western Mojave Desert region. Randsburg, Johannesburg, and Garlock briefly became the main centers of population in the western Mojave Desert. Randsburg alone swelled to a reported population of 3,000 in 1896 (Atchison, Topeka, and Santa Fe Railway Co. 1898a; Anonymous 1899:400-402; Starry 1994).

By 1897, as many as 5,000 miners, settlers, and merchants were reported to have moved into the Garlock-Johannesburg-Randsburg region. Merchants and other settlers from Antelope Valley to the south were among those attracted to the boom towns (Morris n.d. [not dated]). In the late 1890s, the western Mojave Desert/Antelope Valley region entered a prolonged drought, which effectively curtailed the agricultural settlement boom of the late 1880s and early 1890s. Thus, the opening of the Randsburg mines in 1896 and 1897 was seen as offering a new basis for settlement of the desert.

In the late 1890s, a road was built across what is now Edwards AFB from Lancaster to Johannesburg and Randsburg. Antelope Valley merchants were anxious to establish a direct wagon route to the mining community at Johannesburg.

1.3.4 Stock Raising and Settlement in the Antelope Valley and Edwards Air Force Base Region, 1850 to 1890

By the early 1840s the adjudication of rancho land grants had become widespread in Southern California, and the desert frontier boundary region was finally taken under consideration for the establishment of rancho grants. However, there is as yet no evidence of permanent settler occupation of the region before the early 1850s.

As a means of opening the settlement of the San Joaquin Valley and the Tehachapi Mountains, and of stopping the penetration of native stock raiders from that area toward Los Angeles, an Army post was established in the Grapevine Canyon in 1854. The United States Government expenditures aimed at

maintaining the fort itself, with its complement of over 100 soldiers, in addition to officers and civilian employees, proved to be a major motor of economic activity and consequent settlement in the area.

An important aspect of California's nineteenth century history was the great flourishing of the rancho-based cattle industry in the southern part of the state in the 1850s, on the basis of Gold Rush demand, and its crisis in the early 1860s. After circa 1855, the grazing frontier had extended northward to include portions of the Antelope Valley. By the early 1860s, the uppermost Mojave River drainage was also being grazed.

Falling income from beef, high mortgage and tax burdens, and a terrible drought in the early 1860s combined to wreck the old ranchos. Even by 1860, the ranges had become overgrazed.

The building of a rail route down the San Joaquin Valley in the mid-1870s and the growth of Los Angeles' harbor facilities combined to usher in an era of booming production of wheat and other grains in the two areas and elsewhere in the state. California became, by the late 1880s, the second most important wheat producer in the United States (Paul 1988:227).

From the 1860s until about 1920, the stock-raising operations established in the Antelope Valley took advantage of the unoccupied public lands to be found there. Some of the earliest homestead or preemption filings on the south side of the Antelope Valley date from the late 1860s and early 1870s. Springs and seeps on public lands were also developed as watering places.

From the end of the 1860s through the beginning of the 1880s, the Edwards AFB area was used for grazing and as a transportation corridor for wagon traffic heading northward across the Antelope Valley.

1.3.5 Transcontinental Railroad Construction and Railroad Development in the Edwards Air Force Base Area, 1882 to 1889

The mid-1870s saw increased activity in the Soledad area as the Southern Pacific Railroad Right-of-Way from San Francisco to Los Angeles was completed in 1876, with the driving of a golden spike at Lang, southwest of Soledad/Ravenna. The construction of the railroad, and of the San Fernando Tunnel in particular, had involved the employment of huge numbers of Chinese laborers. With the completion of the railroad, these Chinese workers were discharged and left to fend for themselves.

In the fall of 1879, the Santa Fe and the St. Louis and San Francisco Railroads reached an agreement on the joint construction of a line into California under the Atlantic and Pacific (A&P) Railroad Federal land grant charter. These railroads shared a controlling interest in the A&P Railroad.

Meanwhile, Collis Huntington of Southern Pacific Railroad had decided to take action to thwart the building of the A&P line to the Pacific Coast. The A&P line, of course, threatened his California railroad monopoly. He determined to attempt an unfriendly takeover of the St. Louis and San Francisco Railroad by forming a coalition with Jay Gould of the Union Pacific Railroad. Huntington matured his plans to build a preemptive rail route from the existing Southern Pacific line at Mojave, California, to connect with the A&P railroad at Needles, California.

Southern Pacific track crews began construction on the Mojave-Needles line at Mojave on 14 February 1882. This construction was carried out mainly by crews of Chinese background.

By July of 1882, some 40 miles of the line had been completed and was about to be accepted. This covered the right-of-way from Mojave to the vicinity of Kramer (Southern Pacific Railroad Company 1882:7). The Southern Pacific Railroad's Annual Report for the 1882 calendar year lists facilities

recently constructed at sidings named Yucca (which would become Muroc), Kramer, Hinckley [sic], Daggett, and at several stations further to the east. The facilities listed for Yucca, later renamed Rogers, at this time consisted of one section house, one tool house, and one "water station." Identical facilities are listed for Kramer and Hinckley (Southern Pacific Railroad Company 1882:56-57).

In the months of February, March, and April of 1882, press reports followed news of agreements between Santa Fe, the St. Louis and San Francisco Railroad (representing Huntington and Gould), and the A&P Railroad regarding the linking of the Southern Pacific and A&P Railroad systems.

The Southern Pacific's line from Mojave was completed through to Waterman (Barstow) in November of 1882 (Gustafson and Serpico 1992:27; Figure 3: "Map of the Expeditions of 1871, 1875, 1876, and 1878, Under the Command of First Lieutenant George M. Wheeler, U.S. Army Corps of Engineers, With Cultural Feature Updates, Circa 1883/1884" Wheeler 1876).

The line was put into service on 23 October 1882 (Gustafson and Serpico 1996:47-48, 50). The Mojave-Needles rail line was opened through Daggett to Ludlow and Ash Hill on 31 December 1882, to Amboy on 12 February 1883, and to Goffs on 19 March 1883. The railway was opened for operations all the way through to Needles on 19 April 1883 (Gustafson and Serpico 1992:29, 32, 35-36).

On 21 August 1883, the first westbound passenger traffic was run through Needles. The following day sleeper cars run from San Francisco over Southern Pacific rails came eastbound through Needles. In the severe flooding of early 1884, the first bridge over the Colorado River was washed away, and passenger and freight service was ferried across the river until an improved bridge was finished on 29 July 1884. Regular through sleeper passenger service from Kansas City to San Francisco was then possible again (Bradley 1995:161).

1.3.6 The Boom of the 1880s and the Development of the Western Mojave Desert

1.3.6.1 Railroad Land Grants

The construction of the Southern Pacific railway line across the Antelope Valley in 1876 brought railroad land grants to the region by the late 1870s. The construction of the San Francisco-Los Angeles Southern Pacific line in 1876 meant that large blocks of odd-numbered grant and indemnity sections were assigned to Southern Pacific in the Antelope Valley and the Edwards AFB area. The route of the Southern Pacific branch line from Mojave to Los Angeles had been filed with the United States Government in 1871 to make it eligible to receive railroad grant lands. The route of the later Southern Pacific main line from Mojave to Barstow and Needles, begun in 1882, was also covered by Southern Pacific's charter with the United States Government and was eligible for a railroad land grant. This meant that the entire Edwards AFB area was included within the Mojave-Barstow rail line grant area. These holdings in the Edwards AFB area were not "selected" until 1893, and by that time Southern Pacific's holdings in Antelope Valley were under a title cloud.

In 1886, the United States Congress canceled the A&P Railroad's charter and its claim to railroad grant lands in California. The lands reverted to United States control. However, the United States Government declared that since the canceled A&P charter had involved a route of definitive location filing that barely predated the Southern Pacific filing, all of the odd-numbered sections in the overlap area between the grants of the two railroads, which ran right across the Antelope Valley, now belonged to the United States. This issue was fought in the Supreme Court as late as 1912 (West's Supreme Court Reporter 1892, 1897, 1906, 1913). Southern Pacific retained control of its holdings in the Edwards AFB area.

1.3.6.2 The Southern California Land Boom

During the 1870s, limited settlement was to be found in the southern Antelope Valley, as well as at Mojave, which had been established as a railroad center in 1876. However, the settlement of the bulk of the Antelope Valley dates from the mid-1880s, the era of the famous Southern California "land boom." The boom spurred both homesteading and preemption buying of public lands in the interior areas of Southern California, such as the southern Antelope Valley.

Immigrants of modest means began to look for areas where cheap land could still be obtained and where water might be available. The Antelope Valley region was attractive because land prices there were less than a fourth of what they were in some other areas of Los Angeles County. In addition, homestead land was still available. The position of the valley adjacent to the San Gabriel range also promised the availability of stream water flowing from its watershed.

As a result, the Antelope Valley region experienced its first episode of significant valley floor settlement during the late 1880s and early 1890s. This settlement was most active in the southwestern and southeastern areas of the valley, where grain dry farming and orchard production, respectively, were the major pursuits being assayed by the new settlers.

1.3.6.3 Settlement of the High Desert

The railroad net which had been built up in Southern California in the 1870s and 1880s provided the framework for the founding of many new towns (Crofutt 1882:213-229). However, even before the height of the boom, the Antelope Valley caught the attention of town and "colony" promoters, and this situation began to change. Lancaster was officially laid out by Moses Langley Wicks, a major Southern California promoter with ties to the Southern Pacific Railroad, in February of 1884. Palmdale (or Palmenthal) was founded in early 1886. Sand Creek (Rosamond), Acton, and Alpine (later Harold) had all attracted settlers by the late 1880s (Morris 1934; Starr 1934:98 & ff.).

The period from 1883 through 1893 was relatively wet by Southern California standards. The effect of this unusual moisture in the Antelope Valley and adjacent areas was to convince the optimists that dry farming could be successful, at least in the western portion of the valley.

During this period, dry farming of grain and tree crop cultivation, particularly on the west side of Antelope Valley, became quite popular. Large quantities of grain were produced in the early years of the 1890s. By the mid 1890s, there was still very little development of valley floor well-based irrigation, even using artesian flow water. This was the case despite the relatively large numbers of water wells that had been excavated.

1.3.6.4 Initial Attempts at Settlement of the Edwards Air Force Base Area, 1885 to 1896

In 1885, the first homestead entries were made in the territory of modern Edwards AFB, just to the west of Rosamond Dry Lake. During the period from 1885 through 1896, some 18 homestead entries were made in the base area, according to entry registers of the Los Angeles office of the General Land Office (GLO) (Wessel n.d.). By the end of 1908, 58 homestead entries were made in the base area, of which only 3 received final certification.

Of the 70 total entries made before 1909, 45 received patents. All of the patented properties had been initially entered after the end of the 1896 to 1903 drought.

Despite the availability of railroad lands, sales of Southern Pacific properties to settlers was not as important a means of initially acquiring land for settlement as was public land entry. Of some 497 historic sites recorded at Edwards AFB for which there is sectional location data, only 157 (31.6 percent) were located partially or wholly on odd-numbered sections associated with railroad land grants (Guerrero, Chandler, and Komporlides 1996:2-20-2-33).

This situation had changed dramatically by 1898. Within the approximately 9 Edwards AFB area townships in Kern County (324 sections), 58 sections were listed under property owners other than the Southern Pacific Railroad. The majority of these sections were owned by either speculators or persons having some connection with the railroad.

However, the very great bulk of the railroad lands that appeared in private hands in 1898 had reverted to Southern Pacific Land Company ownership by 1917, as indicated by both land company and Kern County property ownership maps (Southern Pacific Land Company 1917; Kern County Surveyor 1918, 1924).

By 1910, settlement in the region had increased to the point that the Corum family, who settled several miles to the south of the railroad station in that year, applied to the Post Office Department for a Post Office at the locality. On 17 December 1910, Clifford Corum was named Postmaster of the Post Office of Muroc. The Corums devised the name Muroc by spelling their name backward, since Corum was used elsewhere in the postal system and not available. This Post Office was established at a small store run by the family on their property. The application submitted to the Post Office Department to open the office indicated that it would serve a total population of 25 to 30 people as of January of 1911 (Muroc Postal Records 1911).

1.3.7 Muroc Station

1.3.7.1 Train Operations at Muroc

The railroad line between Mojave and Barstow was single track. According to Gustafson and Serpico (1996), a train order office was established in Rodriguez (Muroc) in 1901. The office had apparently been closed by 1907 but was back in operation in 1909, when the resident telegrapher died at his post and was found by the section foreman (*Bakersfield Daily Californian* 1909). However, the 1910 decennial census does not list the presence of a telegraph operator at Muroc at that time.

In 1912, Bernard Pauley was appointed station agent for Muroc; this position included responsibility for maintaining the water pumping equipment. At that time, the pump house was enlarged to accommodate a small depot and train order office (Gustafson and Serpico 1996:50). A car body freight house had also been added, at the urging of the Corums, in 1911. This allowed consigned household and other goods for Muroc homesteaders to be secured until picked up.

At the time of the 1920 census, we find a telegraph operator, Charles F. Springer, working at Muroc (United States Bureau of the Census 1920).

The stations at Muroc and Hinkley were also water stops. The original location of the Yucca (Muroc) station in 1882 was chosen because of the availability of water there. A 50,000-gallon-capacity wooden water tank is mentioned in the original station inventory. The railroad wells and pumping plant at Muroc supplied all of the railroad employee households with water.

In 1921, living accommodations for track crew were overhauled with the building of a new concrete bunk house complex, which consisted of two bunkhouses, each with 20- by 118-foot dimensions, constructed

parallel to each other with a courtyard and bathroom/water point facilities in between. The bunkhouses contained individual apartments with kitchenettes for families and were built along the lines of a standard design established by the Atchison, Topeka, and Santa Fe (AT&SF) Railroad system. The house provided to the section foreman was refitted with electrical service, apparently in the late 1920s. This structure contained four rooms, and was double roofed to keep it cool. This feature can be traced back to the original section house built in 1882. The section house occupied in the 1920s and 1930s dated from 1882 (Hisquierdo 1994).

1.3.8 Desert Settlement and Homesteading at Edwards Air Force Base Area in the Twentieth Century

1.3.8.1 Edwards Air Force Base Area Homesteading During the First Boom Years, 1912 to 1920

The year 1911 marks the first year in which more than one homestead entry was made at the Edwards AFB area that would eventually receive a patent. Between 1911 and 1917, some 58 successful homestead entries were made for the base area. An additional 82 homestead entries were made during this period that did not lead to eventual patents. Beginning in 1910, homestead entries increased to between 17 and 25 entries per year through 1916, with the highest number of entries, 25, occurring in 1914, with nearly the same number in 1915 and 1916. From that date until 1933, entries would vary between 9 and 20 per year, with the exception of peaks of 36 entries in 1919 and 1928, and 37 entries in 1931. It appears from reviewing a sample of Homestead Act entry documents that beginning in 1912 the great majority of homestead entries made were under the provisions of the Three Year Homestead Act (Muroc Homestead/Desert Land Entry Patents 1916-1930; Wessel n.d.).

Both the homestead entry and the desert land entry documentation reviewed indicated the importance of nonfarming activities, the critical role of irrigation investments, and the desire of entrymen to prove up in the shortest time possible.

The continued popularity of desert land entry during the teens and twenties reflected a strategy of "double dipping" on the part of successful homesteaders. Those who had made a go of a homestead would later file a desert land entry in order to increase their property holdings.

During the teens, alfalfa was the most popular "proving-up" crop. Winter wheat and barley were also planted, usually for eventual use as forage. Forage grasses such as rye, as well as smaller quantities of corn and milo, were also grown. Small acreages of fruit trees are also mentioned in proving-up documents.

During the teens, some cattle raising was carried out in the Edwards AFB area. Also during the teens, several areas of settlement developed in the Edwards AFB area. The first was focused on the rail stop, general store, post office, and school at Muroc. The Muroc Post Office was moved from the Corum property to the Muroc Mercantile store operated by Everett Edinburg, who became postmaster on 7 December 1913. This town center served as a gathering place for cowboys and prospectors from surrounding areas.

The first school in the Muroc area had opened in 1911 in a building owned by the Corums. It formed part of the Tehachapi School District. However, in 1914 Muroc became a separate district with a new school building located to the southwest of the railroad station and an independent local school board (*Antelope Valley Ledger Gazette* 1914b; Thomas 1946). In the fall of 1916, the school had 18 students, of whom 8 were children of Mexican railroad section gang employees and another 2 were children of other railroad employees.

Following American entry into World War I, the number of homestead applications dropped in 1917 and particularly in 1918, as manpower was mobilized for war production and military service. It appears that a number of homesteaders were absorbed back into the urban economy or joined the military during the war. War mobilization marked the end of the homesteading boom of the middle teens. The Muroc area was also hit by the Spanish Influenza epidemic in October of 1918.

With the return of peace in 1919, the United States entered a recession, which became a source of national concern in 1920. However, at that time, the Antelope Valley and the Muroc area were being swept up in an oil exploration excitement. This included well drilling to the northeast of Muroc.

As of 1920, the portion of Kern County surrounding Muroc and now Edwards AFB, boasted a population of 153 persons grouped in 64 households. Some 18 adults identified themselves as self-employed farmers, 2 of whom operated fruit farms. Two individuals identified themselves as stock raisers working on their "own account," and three others, including a Native American cowboy, were listed as salaried stockmen. Six men were listed as farm laborers and one as a fruit farm manager. At least some of the farm laborers were also homesteaders. For Muroc and other section crew locations, probably Rich and Bissell, 24 AT&SF Railway employees are also listed. Also listed are a gold miner, an oil-well worker, a retail merchant, two carpenters, as well as several people listing urban salaried employment who may be homesteaders or health-seekers. This census roster indicates that a number of individuals mentioned in the local press and elsewhere in 1914 and later were no longer homesteading by 1920.

During the course of the teens, the use of automobiles by local residents became more common and automobiles and wagons shared a maze of unimproved wagon roads which criss-crossed the region. The new availability of motor transport was a significant factor in accelerating interest in desert homesteading in the teens. Muroc was to develop a series of ties with Lancaster that would persist even as the military facilities at Muroc were developed in the late 1930s and the 1940s.

One significant aspect of the development of motor transport was the facilitation of "community" in homesteader districts such as Muroc. In an era before television, shared public events were recognized as the principal means of recreation. Auto transport made these get-togethers, as well as such activities as school board meetings, much easier to attend. In Muroc, in the teens, a series of weekend activities brought settlers together. On Saturday nights, dances were held at the Muroc School. This Saturday night ritual of rural dances was one of the most fundamental patterns of Antelope Valley social life before World War II. On Sunday mornings, religious services were often held at the schoolhouse or elsewhere. During the mid-teens, Muroc had its own baseball team, which played other teams on Sunday afternoons. Picnics, barbecues, and club meetings were also held. In addition, as the testimony of witnesses to homestead residence affidavits attests, neighbors, even those living some distance away from one another, visited frequently. Both workaday activities and unexpected emergencies brought out the need for cooperation.

United States entry into World War I appears to have considerably affected Muroc and the Edwards AFB area. Railroad operations were affected by Government administration of the railroads and heavy wartime traffic. Military and civilian manpower demands cut down the flow of would-be homesteaders, and also apparently motivated some residents to leave for war work or military service. The war represents the closure of the first era of homesteading in the Muroc area.

After the war, enthusiasm for homesteading was evident again. In 1919 and several subsequent years, homestead entries increased sharply in numbers. In addition, desert homesteading was touted for veterans who had suffered respiratory damage due to exposure to poison gas in Europe (Stein 1990:8). Not only veterans but many others were attracted to the high deserts of Southern California, and to the Antelope Valley in particular, as a means of alleviating respiratory ailments, including tuberculosis.

1.3.8.2 Homesteading During the 1920s

In the early and mid-1920s, the return of drier conditions after the wet years of the teens created difficulties for agriculture in the Antelope Valley. This was particularly a problem for those involved in the range grazing of livestock in the Edwards AFB area and elsewhere in the Antelope Valley. This drought, along with the land-use competition posed by the spread of alfalfa farming, caused the final demise of cattle herding in many areas of the Antelope Valley.

The drought also highlighted the overriding importance of water access to homesteaders in the Muroc area. This meant that, given the limited number of most favorable water bearing locations, later arrivals who were serious about developing agricultural production were often required to make considerable investments, sometimes more substantial than those made for living quarters, in well and water systems.

During the 1920s, road and highway development and the increasing use of motor transport were to further affect the base area. The mileage of paved roads in the Antelope Valley increased from 58 in 1925 to 152.5 in 1930 (Jones 1933).

Despite the drought, the population of the Antelope Valley increased significantly during the 1920s, with that of the Lancaster area growing to nearly 2,000. Between 1921 and 1929, the yearly number of homestead entries in the Edwards AFB area varied from a low of 13 to a high of 19, with the exception of a peak year of 36 entries in 1928. Nevertheless, the number of these homestead entries that eventually received patents was considerably lower, varying between 6 and 10 per year.

The school roster for Muroc School in the fall of 1927 and 1929 suggests a relatively stable population in comparison to 1916. Twenty-two children appear on the roster in 1927 and 18 in 1929, compared to 18 in the fall of 1916. By comparison, Antelope School had an enrollment of 24 children (*Antelope Valley Ledger Gazette* 1928b).

By the late 1920s, alfalfa production in the Antelope Valley had reached an impressive total that can be estimated at more than 70,000 tons per annum (*Antelope Valley Ledger Gazette* 1928a). During the early 1920s, poultry production was boosted as a feasible agricultural specialty for the Antelope Valley. The availability of alfalfa as a feed was one of the factors that encouraged this trend, as did the availability of direct motor transport to Los Angeles markets. Both chicken and turkey production were promoted heavily in the Antelope Valley, and several large ranches were established.

Antelope Valley residents who had access to water were able to take advantage of an increase in tourism and weekending in the Antelope Valley, brought about by improvements in transportation. A principal aspect of this was the patronage of a number of duck hunting clubs established around marshes and springs in the center of the valley. Three important such clubs were established within the base area.

An additional source of income for some Edwards AFB area homesteaders and others during the 1920s and early 1930s was greater or lesser involvement in bootlegging or illegal distillation of liquor. During the era of Prohibition (1919 to 1933), after the passage of the Volstead Act, the production of illegal liquor for the Los Angeles market was carried out in relatively remote locations in the Muroc area, as it was in many regions of the Mojave Desert. This directed a considerable flow of cash to some local residents who helped out, allowed their property to be used in some way, or kept their mouths shut.

The Muroc area enjoyed an advantage in such distillation activities because trucks loaded with sugar or grain could be safely run out on Rogers Dry Lake at night with their lights out. Each truck was followed by a decoy. If the trucks were followed, the lead truck would extinguish its lights once on the lakebed

and head in the direction of the still, while the decoy truck with lights on headed in another direction, drawing away any Prohibition agents in pursuit.

One source has suggested that by 1933 a number of stills in the Muroc area had been dynamited by agents sent from out of state, who had circumvented protection offered by local prohibition agents (Fairchild n.d.).

1.3.8.3 Homesteading During the Great Depression and After

The onset of the Great Depression caused many people who had lost their jobs to pull up stakes and look for opportunities elsewhere. Not only did desert placer mining and prospecting see an upsurge of interest, but in many areas, squatters living off the land and scrounging odd jobs moved into rural areas, including on the edge of the desert.

In the Muroc area, the search for economic alternatives is reflected in a surge in homestead applications, with an all-time high of 37 in 1931. However, only 30 percent of these applications were successful, and during the next 2 years, entries numbered only 7 and 15, respectively.

At the "town center" of Muroc, railroad employment provided incomes for a growing number of families. Muroc was both a homesteader and a railroad community.

From 1934 onward, the number of homestead entries declined for the base area to less than six per year through the last year of entry, 1939. During these years, the prospect of military takeover of considerable portions of the region had created an uncertainty which tended to discourage homestead entries, and caused concern and confusion for those already in the process of proving up. Nevertheless, by the late 1930s, the grammar school enrollment at Muroc had increased to approximately 40 to 50 students.

By the late 1930s, the military presence was changing both the economy of the region and the personal plans of individual landowners. Suggested economic terms for buying out civilian property owners and the impacts of military activities on the interests of local residents both created considerable civilian hostility during circa 1936 to 1938. In addition, in the areas of homesteading most immediately subject to Government acquisition, potential homesteading sites on public land were closed to entry by 1936. Those who had already entered and were in the process of proving up were often undecided as to whether to continue, and sent letters to the military trying to learn of their intentions (Meyers 1985).

Local homesteaders, particularly those located on the east side of Rogers Dry Lake, and thus closest to the military bombing range established in 1934, were often vexed by the effects of military activities. Road closures, aircraft noise, stray bombs, and the uncertainty over future prospects caused considerable annoyance. This situation prompted some owners to scale back their operations or lease their properties, with the effect that resultant depreciation on their properties was used as an argument for paying them less than they were worth in the military buyout.

1.3.9 Pancho Barnes

One of the most famous persons associated with the history of Edwards AFB was Florence Lowe "Pancho" Barnes. A brief discussion of her life and her connection with the base follows; for a more extensive treatment, see Lauren Kessler's *The Happy Bottom Riding Club* (Random House 2000).

Pancho Barnes was a young aviatrix and Los Angeles socialite when she was reported to have purchased the "Ben Hannam place near Muroc" (tract 2072) in January 1935 *(Antelope Valley Ledger Gazette* 1935). Actually, Pancho, heavily in debt from her extravagant southern California lifestyle, traded a two-

story apartment building on Sunset Boulevard in Los Angeles for the 80-acre Hannam ranch (McKendry 1993). The parcel included Ben Hannam's farmhouse, a sheep shed, a root cellar, a hay barn, a well, and at least two irrigation lines (King 1993). Pancho eventually expanded the old homestead into the developed core, or main compound, of her ranch. In February 1937, she bought an adjacent 100 acres from Charles and Ester Hannam and their widowed mother. This property included a house, outbuildings, and irrigation lines.

In August 1940, Benjamin and Kathryn Hannam, and Ester Hannam Hall and her husband Edward Hall sold an additional 180 acres to Pancho. These 180 acres were undeveloped at the time Pancho purchased them. Pancho developed part of this into an airfield and left the remaining 40 acres undeveloped. This completed Pancho's Rancho Oro Verde which in 1940 totaled 360 acres (United States District Court, Southern District of California 1956).

In 1935, Pancho and her son William "Billy" Emmert moved to the Benjamin Hannam place. She "eventually improved" the original house and converted the sheep shed into chicken coops (United States District Court, Southern District of California 1956:37-38).

Pancho came from an upper class background and had numerous affluent friends in the motion picture industry and other high places in southern California society. She gradually created a desert oasis that was interesting enough to attract her famous city friends from the movie and aviation industries. To enhance the hospitable atmosphere of her ranch, Pancho built a summer kitchen for informal dining and a bar in her home for entertaining. A swimming pool and facilities for horseback riding expanded opportunities for recreation at the ranch, and a graded dirt landing strip assured easy and fast transportation for her friends. When the swimming pool was completed in 1939, she invited pilots from everywhere to her open house. Stunt pilots, barnstormers, civilian and military pilots, all of the women pilots from the 99's (a flying sorority), and the Women's Air Reserve descended upon the ranch to party. Throughout her life at the ranch, Pancho hosted parties, barbecues, dances, camping trips, hayrides, fly-ins, treasure hunts, and hunting and fishing trips for her friends (Trout 1994).

Pancho continued to expand her professional interests in flying during this period. By 1941, Pancho had completed construction of a large hangar and an updated runway. The last Civilian Pilot Training pupils were housed in this new hangar, which also contained bedrooms, bathrooms, classrooms, and an observation tower (Story 1993). With the Japanese attack on Pearl Harbor in December 1941, all civilian flying within 150 miles of the Pacific Ocean was banned. During the war years, personnel from the base increasingly came to Pancho's to have a meal and a drink. Her ranch soon became a favorite "watering hole" for the instantly expanded World War II air base, and became renowned for its parties and escapades. The Army Air Corps rented Pancho's new large hangar for military air operations and early in the war, hers was the only one in the area.

By the end of the war, the base and surrounding area had grown considerably, and Pancho pursued her guest ranch business wholeheartedly (McKendry 1994). In 1945, using money she received from a rich uncle who bought her share of a family estate, Pancho began construction on a U-shaped, ranch-style motel. In August, she received her first liquor license. Construction also began on her rodeo grounds, and the first rodeo was held later in the year. The 20-room motel was completed, and each subsequent year brought a new addition to the resort (United States District Court 1956).

In early 1947, altercations between civilian and military personnel at Pancho's caused the base Commander, Colonel Signa Gilkey, to place Pancho's off-limits for the first time. To control her clientele and to bring her resort back into the good graces of the Army Air Corps, Pancho set up a private club, issuing membership cards to each member. The Happy Bottom Riding Club was born. By this time, Pancho's place was an institution. Famous fliers from all over the world frequented her ranch. Her

place was like an unofficial debriefing room for the test pilots at Muroc Army Air Base (AAB). Eventually the membership rolls became like a who's who of aviation and to some degree, of show business. The first card was issued to Captain Charles E. "Chuck" Yeager, who later became the first man to break the sound barrier; he retired from the Air Force as a Brigadier General. Notable members from show business included Edgar Bergen, Eric Von Stroheim, Roy Rogers, Howard Hughes, John Wayne, Ramon Navarro, Jimmy Stewart, Robert Young, Robert Cummings, Errol Flynn, Rory Calhoun, Gary Cooper, Elizabeth Taylor, Ward Bond, and Wallace Beery. Members from the field of aviation (with their highest rank achieved in the Army Air Corps or United States Air Force) included: Kirk Kerkorian, Tony LeVier, Bobbi Trout, Tex Johnston, Slick Goodlin, Scott Crossfield, Dr. Barney Oldfield, John K. "Jack" Northrop, Larry Bell, Bill Lear, Bob Hoover, Captain Glen Edwards, General Robert Cardenas, General Albert Boyd, General Frank K. "Pete" Everest, Colonel Signa A. Gilkey, Colonel Jack Ridley, Colonel "Bud" Anderson, General Jimmy Doolittle, General "Hap" Arnold, General Hoyt Vandenberg, General Carl "Tooey" Spaatz, and Lieutenant Colonel Fitz Fulton (Lawson, Lillard, and Underwood 1996).

Also in 1947, a dormitory was built to house the hostesses who now numbered from 6 to 10 women. The following year, in 1948, a dining room was added to the cafe/bar, and a fountain, tower, and archway were added to the motel (McKendry 1994).

In 1949, the patio adjacent to the bar was enclosed and a dance hall with an ocean wharf motif was created. Regularly scheduled dances, featuring a band from Muroc AFB, were held each Wednesday, as well as on weekends. Professional lighting was installed at the rodeo grounds for nighttime events, and the tracks for horse racing were built. Two large-scale Rodeo Cowboys Association sanctioned rodeos were held there in 1949 and 1950 (McKendry 1994).

By 1950, Pancho's ranch included an airfield, motel, bar and restaurant, dance hall, swimming pool, rodeo grounds and race track, horse corrals, and residences for 35 employees. Pancho continued to expand her community calendar, which now included rodeos, horse racing, dances with live music every Wednesday and weekend evenings, horseback riding, hay rides, and flying events. Many famous people attended these various events (McKendry 1994).

However, by the early 1950s Muroc AFB had become Edwards AFB and was arguably a major jet aircraft and rocket engine test facility. The new high-performance jet aircraft required much longer runways and more sophisticated support facilities. Edwards AFB needed to expand its capabilities and physical size to carry out its expanded testing mission.

In 1953, the commander of the base, Colonel J. Stanley Holtoner, declared that property in the vicinity of aircraft approach and landing had to be acquired because of safety issues. In February 1953, the United States Government filed a condemnation suit for the affected parcels of land, including the town of Muroc and all of Pancho's ranch (The Earth Technology Corporation 1994c). Also in this year, a devastating fire of suspicious origin burned Pancho's dance hall and home (Johnson 1994). The court prohibited her from rebuilding the structures. Although Pancho and many of her neighbors fought vigorously in court against the condemnation of their properties, Pancho was forced to leave the ranch in August 1954 (United States District Court 1956:6). After considerable legal maneuvering on both sides, the price of Pancho's place was finally settled at $425,000.

1.3.10 Mining in the Edwards Air Force Base Area

1.3.10.1 Gold, Silver, and Copper Mining

Prospecting in the Edwards AFB area intensified in the early 1880s after completion of the rail line through the region. Thus, in 1884, the first known mining claim within the base area was filed. This followed the discovery of copper deposits 3 miles south of Kramer Station on 10 March 1884. Copper prospecting was stimulated in the early 1880s by increased demand created by expansion of the use of copper in electrical and natural gas applications.

Also near Edwards AFB in the last decade of the nineteenth century, gold was discovered along the western edge of the Rosamond Hills by Ezra M. Hamilton. Hamilton's strike attracted other prospectors to the area. In 1910, Hamilton bought the land around Willow Springs and attempted to develop a desert oasis and health resort (Settle 1991).

The first recorded gold claim in the Edwards AFB area was located in a quartz deposit in the Kramer Hills, a few miles southeast of Kramer Station. This discovery instigated a small gold rush in the Kramer Hills in the northeast corner of what became Edwards AFB. Numerous claims were subsequently filed in the area, but few were actually worked (Bupp et al. 1996:6.20).

The Kramer Mining District in the Kramer Hills region was organized at a meeting held at Kramer Station on 20 November 1884, with J. L. Coffman presiding. This was the first of three mining districts that would be organized in the area.

A smaller gold rush took place in the Kramer Hills in 1896. And was over in 6 months (Bupp et al. 1996:8.12). Nevertheless, Kramer Station itself bustled during the next few years as a principal wagon road railhead for Randsburg and neighboring Johannesburg. In 1899, yet another gold rush took place in the Kramer Hills and was also short lived (Bupp et al. 1996:6.20).

In 1926, gold ore was discovered in the Kramer Hills east of Kramer Camp and several miles east of the current boundaries of the base. This set off yet another small rush to the Kramer Hills area. The Kramer Hills area never supported financially successful mining activities, although prospecting and mining claim filings continued to some degree until the area was withdrawn by the military. Precious metal mining in the western Mojave Desert was hard hit, beginning in 1915, by the rise in prices and labor costs caused by the outbreak of World War I in Europe (Bradley 1922:333).

Gold mining and prospecting underwent both a boom and a partial return to more primitive methods during the Great Depression years of the 1930s. Old placer mining camps and deposits throughout the western Mojave Desert were worked over again by individual prospectors and families who were trying to make ends meet during the hard times. In some cases, families displaced by the Great Depression settled temporarily in the mining areas. In other cases, families resident in desert towns spent weekends prospecting or working claims (Settle 1994). There was a major increase in the number of mineral entry filings. The Tropico Mine in Rosamond and other mines in the Soledad Mountain area became mainstays of the Antelope Valley economy at a time when rock-bottom farm commodity prices had devastated the agricultural sector.

1.3.10.2 The Impact of Borax Mining on the Edwards Air Force Base Area

One of the most significant kinds of mining activity associated with history of the Edwards AFB area was that of borate mining (Miller and Miller 1976:41-42; Ver Planck 1962:39-41, 61-68). The development of borate mining was to have a profound effect on the "homesteader" settlement of the Edwards AFB area

after the mid-1920s. In the late 1920s and particularly during the Great Depression years of the 1930s, borate mining was to provide employment not only for a large number of single men resident near the mine, but also for a number of heads of homesteader families who commuted to the mines from the Rogers Dry Lake and Muroc areas.

1.3.11 Use of Edwards Air Force Base Area Dry Lakes

Beginning as early as the teens, the Rosamond and Rogers Dry Lakebeds were used by aircraft and automobiles, on account of the smooth roadbed characteristics of the flood deposit surface of the lakes. They later also attracted movie crews.

1.3.11.1 Film Production

As early as the early 1920s the dry lakes were used for filming. Scenes for Cecil B. De Mille's "The Ten Commandments" were filmed at Rogers Dry Lake in 1923. In 1936, the film "Speed" was also filmed at Rogers Dry Lake, and employed many local Muroc extras. Films such as Westerns were also shot at Rosamond Dry Lake.

1.3.11.2 Automobile Racing and Testing

As early as the latter decades of the nineteenth century, the flat hard surfaces of Rosamond and Rogers Dry Lakes were used as highways by wagon traffic. The Lancaster-Randsburg Road incorporated Rogers Dry Lake as part of its route in the 1890s. In later decades, homesteaders living near the lakes would use them as a preferred vehicle route, except during the winter rains. Thompson (1921) mentions the use of the Rogers Dry Lakebed by the main road connecting Mojave and Barstow, which followed the AT&SF railway tracks.

Thus, the use of the lakebeds for testing or racing automobiles was an outgrowth of their use as transportation routes. Its rise to prominence coincided with a frenzied and sustained interest in all aspects of motor transport and motor sports in Southern California beginning in the first decade of the twentieth century. Motor car enthusiasts traveled to Southern California from the more inclement climes of other regions of the United States to test and race automobiles. Early races were held up Mount Wilson, beginning in 1907, and up Mount Baldy from the Antelope Valley beginning in 1903. Desert races were also organized. The lakebeds of southern California's dry lakes were particularly well suited for speed trials and speed racing.

There were seven southern California dry lakes used for auto races: including, Buckhorn, Rosamond, and Rogers Dry Lakes. These Pleistocene playas relevel and resurface themselves in wet winters, when rainfall and runoff fills them for a few weeks, forming a hard, dry, flat surface in the hot summer sun. Rogers Dry Lake was considered to be the best for automobile racing; it was smoother, harder, and longer than the other lakebeds.

It is unknown when the first professional racing was conducted on Rogers Dry Lake, but it is documented from as early as 1910 (Hatheway 1980:134). While some of the early racers may have been amateurs, most of the racing on Rogers Dry Lake before the 1930s was conducted by professionals.

The first sanctioned, professional motoring event at Muroc was held in May 1923, under the supervision of the American Automobile Association (AAA). In this event, racer Joe Nikrent took his stripped and modified Buick to a speed of 108.24 mph. In April 1924, again under AAA supervision, famous race car driver, Tommy Milton, took his Miller-powered engine to 151.26 mph (Drake 1994:13).

Two years later, in 1926, Ralph De Palma, who had raced at the Indianapolis Speedway, opened his racing car test camp at Rogers Dry Lake. The camp stayed active for 7 years, until 1933. Here, racing cars, with their corps of mechanics, and professional drivers, were tested. Proving the suitability of the lakebed for racing, many speed records were set (Settle and Settle n.d.).

One of the most notable races involved the legendary Frank Lockhart, a fearless young race car driver. Handsome and charming, he was as much a national hero as his contemporary, Charles "Lindy" Lindbergh. At the time when the world speed record of 174 mph had been won by a British racing car with a huge racing engine, Lockhart achieved the world's second highest speed, a whopping 171 mph, in a measured mile run at Rogers Dry Lake in April 1927. For the vehicle's class, the speed was a world record (Drake 1994:13).

Motorcycles were raced on the lakebed as well, as indicated by the description of a weekend meet held in November of 1928. Races were held on Sunday, but crowds at Muroc stayed over Saturday night. Some of them angered the local residents by stealing road signs and lumber from back yards to build warming fires. In newspaper coverage of the meet it was suggested that several motorcycle police be stationed at future events of this kind to keep order (*Antelope Valley Ledger Gazette* 1928c).

The first organized large motor event at Rogers Dry Lake took place on 25 March 1931. It was a Muroc Timing Association race, sponsored by Gilmore Oil Company. Gilmore Oil sponsored events at Muroc for several years. On 10 July 1932, Joe Mozetti drove what is known as a Fronty T a record-setting 118.43 mph at another Gilmore-sponsored Muroc event (Carroll 1991). Fronty refers to a Frontenal over-head valve kit developed by the Chevrolet brothers for the Model T Ford and pre-1929 Chevrolet four-cylinder engines. The first Fronty T appeared in the 1922 Indianapolis 500 (Drake 1994:69).

Others were using Rogers Dry Lake at this same time. The military had arrived in 1931, establishing Muroc Bombing and Gunnery Range on the east side of Rogers Dry Lake. Despite the presence of the military, racing events that year were very popular, as the local newspaper reported.

For several years, the military and the racers shared Rogers Dry Lake without significant conflict. For example, in 1937, virtually all of the operational aircraft of the Army Air Corps were on the northeast side of the lakebed for war games — some 200 planes (Antelope Valley Ledger Gazette 1937), but the automobile racers from Los Angeles would use the southern part of the lakebed for the weekend races. In fact, bomb craters in the lakebed were the only evidence of the military observed by Bill Huth, who first began racing at Rogers Dry Lake in 1939 (Huth 1995).

The racers and the Army Air Corps continued to coexist until some time in 1938, when the military banned the racers from Rogers Dry Lake. However, this was not the last race on the lakebed.

1.3.12 The Arrival of the Military and Establishment of Hap Arnold's Camp

The level playa lakebeds of Rogers and Rosamond Dry Lakes first attracted civilian and military aircraft developers in the 1920s. The lakebed was first used for military training in 1928 when the 115th Observation Squadron of the 40th Division of the Griffith Park National Guard brought eight planes to Rogers Dry Lake for maneuvers (Wessel et al. 1991). The Army Air Corps also became interested in Rogers Dry Lake in 1928. The Army Air Corps wanted to establish two bombing and gunnery ranges on the West Coast to serve their facilities in California, Oregon, and Washington. Rogers Dry Lake in the Mojave Desert and Honey Lake in Lassen County, California, were considered as locations for the southern and northern ranges, respectively (Air Adjutant General n.d.).

Little further progress was made toward the establishment of a bombing and gunnery range at Rogers Dry Lake until 1931 when Lieutenant Colonel Henry Harley "Hap" Arnold was assigned to command the air station at March Field, near Riverside, California (Lawson, Parker, and Underwood 1996). March Field was the headquarters for Army flight operations on the West Coast. Arnold's task was to convert the primary flying school at March Field into an operational base with a bomber and a fighter group. To do so, Arnold needed a bombing and gunnery range.

In 1933, Arnold began taking action to establish a viable bombing and gunnery range and made his first official visit to Rogers Dry Lake. The scouting party consisted of Arnold, Major Carl "Tooey" Spaatz, Lieutenant Minton Kaye, Captain Ira C. Eaker, and two members of the Automobile Club of Southern California; Pete Peterson and Douglas' employee, Edward Heinemann (Young 1984; Green 1990; Wessel and Wessel 1990; Puffer 1996; No Author n.d.). Everyone in the party wore civilian clothing so that local residents would provide accurate assessments of their property's value. Had local residents been aware of the military's interest, they might have raised the asking price on privately owned parcels or rushed out and bought property on speculation in order to make a profit at the Government's expense.

When the scouting party arrived at Muroc, they found a 44-square-mile, flat, isolated, dry lakebed (Wessel and Wessel 1990; Komporlides et al. 1996b). It was perfect for their purposes. The Federal Government owned approximately 36 square miles of land east of the lakebed; the AT&SF owned 34 square miles, and 4 square miles were dedicated school tracts (Wessel et al. 1991). Local residents informed the scouting party that many privately owned parcels could be purchased for as little as $1.75 an acre (Green 1990:31; Wessel and Wessel 1990). These conditions would allow a suitable facility to be established quickly and cheaply (Greenwood et al. 1980), important considerations during the period of curtailed military spending following World War I (Ballance n.d.).

In September 1933, Arnold sent Sergeant Fogelman and a small group of men to set out bombing targets and establish the Army Air Corps' first camp on the east shore of Rogers Dry Lake (Wessel and Wessel 1990). This is considered the birth of what would later become Edwards AFB (Young 1984). The military acquired official title to the land on 6 February 1934 when President Franklin Delano Roosevelt signed Executive Order 6588, dedicating 128 square miles of Federal land around Rogers Dry Lake for military use. A tent city, later known colloquially as Hap Arnold's camp, was established on the site (Hudlow 1995a). By 1936, Congress had appropriated funding to purchase approximately 1,000 privately owned acres of land around Rogers Dry Lake (Wessel et al. 1991).

The bombing and gunnery range was used only part-time. However, the range's advantages also attracted squadrons from other military bases (Greenwood et al. 1980).

Although the Army would not permanently station troops at Hap Arnold's Camp (Hudlow 1995a), 20 people on detached duty from March Field manned this isolated camp full-time (Wessel and Wessel 1990). These men endured the Antelope Valley's extreme temperatures, windy conditions, and ever present sand with only tents for shelter until 1935 (Air Adjutant General n.d.; Hudlow 1995a). Living conditions at the Hap Arnold's Camp didn't improve until Lieutenant Max R. Finnel took command of the facility (Wessel and Wessel 1990). By the end of 1935, the camp contained a barracks, mess hall, storehouse, radio station, two underground magazines, and a well (Air Adjutant General n.d.; Hudlow 1995a).

On 16 January 1936, Officers of the Pacific Coast Army Air Corps visited Hap Arnold's Camp and determined that it should be made into a permanent base for practice bombing (*Antelope Valley Ledger Gazette* 1936; Wessel et al. 1991). Subsequently, the range was used by the 1st Wing, composed of all the Army aircraft west of San Antonio (Wessel et al. 1991). The equipment and manpower at the range were still supplied by March Field (Wessel et al. 1991).

The outbreak of the Spanish Civil War in 1936 gave the United States an opportunity to see the latest in German aviation technology. It was apparent that with the exception of the controversial B-17, American aviation technology was not nearly as advanced. Expanded appropriations paid for increasingly larger exercises at Hap Arnold's Camp, culminating in a massive exercise in May 1937. These war game maneuvers were the largest aviation exercises ever held in the United States to that date. Over 300 aircraft participated, virtually the entire United States Army Air Corps (Greenwood et al. 1980:153; *Antelope Valley Ledger Gazette* 1937). The 3rd and 7th Attack Groups pretended to attack Muroc. The 1st, 8th, 27th, 55th, and 94th Pursuit Groups with the 373rd Coast Defense Unit from San Pedro and their anti-aircraft weapons acted as defenders. Army Air Corps officials from around the country, including General Oscar Westover, Chief of Staff, witnessed the exercise (Wessel et al. 1991).

The success of this exercise persuaded the War Department to allocate an additional 150,000 acres of land for the facility on 21 April 1938 (Hudlow 1995a). The land was located around and east of Rogers Dry Lake in Kern, Los Angeles, and San Bernardino counties. Congress increased the funding for land acquisition to $300,000 in order to accomplish this (Wessel et al. 1991). Elmer F. Karpe, a realtor and appraiser from Bakersfield, California, completed an appraisal of 37,757.35 privately owned acres within the proposed boundaries of the Range on 1 June 1938 (Karpe 1938).

On 20 July 1939, the Federal Government filed a condemnation suit for immediate possession of 59,163 additional acres of private land for the Muroc Bombing and Gunnery Range (Greenwood et al. 1980). On 20 July 1940, Franklin Delano Roosevelt signed Executive Order 8450 which transferred the Federal land within the proposed boundaries of Muroc Bombing and Gunnery Range to the Army and authorized the purchase of any private land in the area (Greenwood et al. 1980). The Army acquired a total of 156,560 acres by the end of 1940 (Greenwood et al. 1980). Following these acquisitions, Muroc Bombing and Gunnery Range encompassed Rogers Dry Lake and the property east of the lake up to the modern boundaries of Edwards AFB (Hudlow 1995a).

The Muroc Bombing and Gunnery Range was officially activated on 21 June 1940 under the command of Captain Glen L. Arbogast

1.3.13 World War II and the Muroc Bombing and Gunnery Range (South Base)

While the camp on the east side of the lakebed was adequate, military decision makers believed the western shore of Rogers Dry Lake had more advantages. Brigadier General Delos Emmons argued that a site closer to the settlement of Muroc would have better access to roads, the railroad, and a better water supply. The western side of the lakebed would also make a better landing field due to the prevailing northwest wind (Air Adjutant General n.d.; Hudlow 1995a). By the fall of 1941, the Muroc Bombing and Gunnery Range had moved to the west shore of the lake although Hap Arnold's Camp was still used as a training area.

Immediately following the declaration of war, the 41st and 30th Bombardment Groups arrived at the Muroc Bombing and Gunnery Range and began patrolling the West Coast (Wessel et al. 1991). Muroc Bombing and Gunnery Range was made a separate post, independent of March Field, on 23 July 1942. It was renamed Muroc AAB, California (Young 1987). From mid-1942 to November 1943, the base provided advanced fighter and bombardment training for the P-38 *Lightning*.

On 8 November 1943, Muroc AAB was redesignated Muroc Army Air Field (AAF) (Young 1987). By December 1943, the Army no longer needed entire bombardment units, so Muroc AAF began training replacement crews instead. By this time, the Consolidated B-24 *Liberator* had largely replaced the B-17 *Flying Fortress* over the skies of Muroc. This training regimen continued until April 1945 (Young 1984).

In May 1945, the first Boeing B-29 *Superfortress* Lead School in the United States was assigned to Muroc AAF. The purpose of this 4- to 6-week school was to teach radar bombing techniques that would increase the accuracy of bombing runs in overcast conditions over Japan. This training was successful and increased bombing accuracy by approximately 50 percent (Young 1984).

Muroc Army Air Field grew dramatically during World War II. Prior to the war, in mid-1941, the permanent population of Muroc Bombing and Gunnery Range was 150 enlisted men. By the end of 1942, 6,300 men were permanently stationed at this military base (Young 1984).

To support this population, the Army constructed 1,090 temporary hutments, and 383 permanent hangars and support buildings on the western shore of Rogers Dry Lake (Wessel et al. 1991). By the end of World War II, the facility contained hangars, administrative buildings, barracks, officers' quarters, a hospital, a post exchange, a post commissary, a library, two mess halls, two chapels, two theaters, two non-commissioned officers' clubs, two officers' clubs, and recreational buildings. The mess halls, chapels, theaters, and clubs were duplicated because the base, like all other military bases in the country, was segregated (Wessel and Wessel 1990). Family housing for White servicemen and government contractors was available just north of the base, at Kerosene Flats.

Demobilization shrank the base population following World War II. In 1946, there were less than 800 military, civilian, and contractor personnel on base (Young 1984). However, the population soon increased to support a growing number of flight test programs on base. By 1949, the base supported 2,500 workers and 2,500 dependents (Young 1984). These people and programs were housed in World War II temporary structures until funding became available to construct a modern flight test facility. These structures were designed only to last from 5 to 7 years, until the end of the war, and were worn out by years of heavy use. However, Colonel Signa Gilkey, the base Commander, wouldn't approve renovations to existing, obsolete, structures because he suspected that, "any temporary repairs — or cosmetic improvements of any kind — would jeopardize funds for the new installation" (Young 1984).

1.3.14 Muroc Flight Test Base (North Base) and the Dawn of the Jet Age

During World War II, the Government believed that air power would be a key to winning the war. In addition to purchasing over 300,000 aircraft from the aircraft industry and becoming the industry's biggest customer, the Government also became involved in aircraft research and experimentation. The war made it important to keep any technological developments secret, but none of the existing research facilities were sufficiently isolated to meet this requirement (Hudlow 1995a).

Consequently, in mid-1942, the Army Materiel Command established the Materiel Center Command Flight Test base on the northwest shore of Rogers Dry Lake, approximately 6 miles north of the community of Muroc. The base was later renamed the Materiel Command Flight Test base and then the Muroc Flight Test base. Although it was located on the Muroc Air Base Reservation, the test base was an autonomous facility, first under jurisdiction of Materiel Command and, after September 1944, under the jurisdiction of the Air Technical Service Command (Hudlow 1995a).

The test base was originally established to house and test the Bell XP-59A *Airacomet*, the first American jet aircraft. The XP-59A's first official flight occurred on 2 October 1942, and its pilot, Bell test pilot Robert Stanley, became the first American pilot to fly a jet aircraft. Colonel Laurence C. Craigie became the first American military pilot to fly a jet aircraft later that same day (Hudlow 1995a).

The XP-80 program moved into the test base in November 1943. The Lockheed XP-80 *Shooting Star* became the first American production jet aircraft (Hudlow 1995a).

The Muroc Flight Test base had been constructed as a temporary facility. However, the military continued to conduct aeronautical research there following World War II. On 14 October 1946, Muroc Flight Test base was officially designated a flight test center by the Army (Hudlow 1995a). Important aircraft tested at Muroc Flight Test base in the years following World War II include North American F-86 *Sabre*, the Douglas XB-43 *Versatile II*, the North American XB-45 *Tornado*, and the Northrop YB-49 *Flying Wing*. The F-86 became one of the most successful fighter aircraft in the Korean War. The XB-43 was the first American jet bomber, while the XB-45 was the first American multi-jet engine production bomber. Although it was not a success itself, the YB-49 is a direct ancestor of today's successful Northrop B-2 *Spirit* stealth bomber (Hudlow 1995a).

Following creation of the United States Air Force in September 1947, Muroc AAF was combined with the Muroc Flight Test base to form Muroc AFB on 12 February 1948 (Young 1987). Training activities were discontinued, and the flight test function was expanded to include the entire base. By the end of the 1940s, Muroc Flight Test base became known as North Base (Hudlow 1995a).

After 1947, flight testing at North Base focused on new and unusual aircraft. Aircraft tested at North Base during the 1950s and 1960s include the Lockheed XFV-1 *Pogo* and the Lockheed U-2 reconnaissance aircraft. The XFV-1 was an attempt to develop a vertical takeoff and landing aircraft. The U-2 was used for long-range photo reconnaissance missions and high-altitude weather and environmental research (Hudlow 1995a).

1.3.15 The Air Force Flight Test Center and the Move to Main Base

The research conducted at Muroc Flight Test base was an indication of the direction Muroc AFB would take following World War II. Tests conducted out of Muroc Flight Test base reinforced the value of Muroc's good weather, uncongested skies, isolation, and lakebed runway for flight test missions (Saxon et al. 1989). With the encouragement of the base Commander, Colonel Albert Boyd (former Chief of the Flight Test Division at Wright Field, Ohio) a Master Plan to develop the base into a modern flight test facility was FINALed (Saxon et al. 1989).

The Master Plan contained three key elements:

- relocation of the AT&SF Railroad tracks north of the base, providing aircraft with unrestricted access to the entire lakebed,
- relocation of the base approximately 1.5 miles northwest of the World War II facility (The Earth Technology Corporation 1994c), and
- construction of a new, 6,000- by 300-foot, concrete runway (Komporlides et al. 1996a). In addition to hangars, workshops, offices, warehouses, barracks, and cafeterias, the Master Plan included plans for the construction of shopping centers, restaurants, schools, a hospital, and recreational facilities such as modern service clubs, swimming pools, riding stables, and a golf course (Young 1984). Due to the remote location of the base, the Master Plan provided a design for "a self-contained town with all the amenities and support facilities associated with any town of 10,000 to 20,000 inhabitants in the 1950s" (Young 1984).

On 8 December 1949, Muroc AFB was redesignated Edwards AFB (Young 1987) in commemoration of Captain Glen W. Edwards who was killed flying second seat to Major Daniel Forbes in a Northrop YB-49 *Flying Wing*. Two years later, on 25 June 1951, Edwards AFB was officially designated the Air Force Flight Test Center (AFFTC) (Young 1987). By 1957, the Air Force had 10 Air Research and Development Command bases, but Edwards AFB was the only AFFTC (Komporlides et al. 1996a).

A post-war reduction in military spending delayed implementation of the Master Plan, but Congress funded housing separately. Consequently, 200 family housing units were the only elements of the Master Plan completed at Muroc/Edwards AFB during the late 1940s (Komporlides et al. 1996a).

Funding for the rest of the Master Plan was approved in 1952, and a new land acquisition program was initiated (The Earth Technology Corporation 1994c). This program included the purchase of private land within the community of Muroc and surrounding homesteads in order to expand the western boundary of the base (The Earth Technology Corporation 1994c). Between 1,000 and 25,000 acres were acquired annually until the modern boundaries of the base were established in 1961 (Wessel and Wessel 1990). By mid-1955, 75 percent of the base's new facilities were constructed. The new concrete runway was completed in 1954, and Main Base was officially occupied on 18 August 1955 (Young 1984; Komporlides et al. 1996a). By this time, the Base served approximately 15,000 employees and family members and housed 5 Government agencies and 15 contractor organizations.

The Air Force still sought to make the base attractive to civilians in order to attract quality employees. Civilian employees were able to live on base until 1958, and there was a Civilian's Club in addition to Officers' and Non-Commissioned Officers' Clubs (Young 1984).

During the 1940s, America's first generation of jet aircraft were tested at Muroc/Edwards AFB. During the transition between propeller driven and jet aircraft, many of the early jet aircraft were similar in appearance to propeller driven aircraft because their design failed to take full advantage of jet capabilities (Young 1984). As the decade progressed, aircraft manufacturers developed new aircraft designs that increased the performance of jet propelled aircraft. Aircraft programs at Muroc/Edwards AFB that tested these advances included the swept wing North American F-86 *Sabre*, the Douglas D-558-I *Skystreak*, and the Convair XF-92A *Dart*, the first true delta wing aircraft designed in the United States.

The 1940s also ushered in the supersonic age. The Bell X-1 arrived at Muroc AAF on 5 April 1947. On 14 October 1947, the sound barrier was broken over Muroc AAF with then Captain Charles E. "Chuck" Yeager at the controls (Young 1984). By the end of the 1940s, jet technology was commonplace, and by the end of the 1950s, supersonic travel was routine. During the 1950s, the testing program at Edwards AFB focused on intercontinental bombers and the United States' first generation of fighters capable of sustaining supersonic speeds (Young 1984). This decade produced the extremely successful Boeing B-52 *Stratofortress* that is still in use today and the Convair B-58 *Hustler*, the Air Force's first supersonic bomber. All of the Century Series supersonic fighters were tested at Edwards AFB: the North American F-100 *Super Sabre*, the McDonnell F-101 *Voodoo*, the Convair F-102 *Delta Dagger*, the F-104 *Starfighter*, the Republic F-105 *Thunderchief*, the Convair F-106 *Delta Dart*, and the North American F-107 *Ultra Sabre* (Young 1984). By the 1960s, replacements for the F-100 and F-105 were being tested at Edwards AFB. These were the McDonnell Douglas F-4 *Phantom II* and the General Dynamics F-111 *Aardvark*, respectively. The F-4 became the most important fighter in the Air Force arsenal during the 1960s and 1970s. The less successful F-111 was the first operational fighter to have variable geometry wings. Counterinsurgency aircraft developed specifically for the Vietnam War were also tested at Edwards AFB during the 1960s including the Martin YB-26K, a modified version of the Martin A-26 *Invader*, and the North American/Rockwell OV-10A *Bronco* (Young 1984).

Many aircraft tested at Edwards AFB during the 1970s are still in service in 1997. These include the Rockwell B-1B *Lancer*, designed to replace the B-52 *Stratofortress*; the close air support Fairchild-Republic A-10 *Thunderjet II*; and two fighters: the McDonnell Douglas F-15 *Eagle* and the General Dynamics F-16 *Fighting Falcon* (Young 1984). The Air Force continues to refine these aircraft; the B-1, F-15, and F-16 are still undergoing tests on base.

During the 1980s, while aircraft developed during the 1970s continued to be tested at Edwards AFB, several new aircraft were also tested. These included the McDonnell Douglas KC-10A tanker (Young 1984), the Sikorsky HH-60A *Nighthawk* rescue helicopter, the Fairchild Republic T-46A jet trainer, and the Northrop B-2 *Spirit* stealth bomber.

1.3.16 The Test Pilot School

In addition to encouraging the renovation of the base, Colonel Boyd also lobbied to transfer the Air Materiel Command Experimental Test Pilot School from Wright-Patterson AFB in Ohio to Edwards AFB. This was accomplished on 4 February 1951. Shortly thereafter, on 4 April 1951, the school was renamed the Air Research and Development Command Experimental Test Pilot School. Its students were drawn from the test support squadron at Edwards AFB until 1 January 1953 when the school was redesignated the USAF Experimental Test Pilot School at which point pilots from throughout the Air Force could apply. Applicants were required to be on current flying status, have at least 1,500 hours of flying time in diverse aircraft, and have a college education that included instruction in flight theory, aeronautical mechanics, and aerodynamics (Saxon et al. 1989).

Initially, the school was housed in a wooden maintenance hangar at South Base. Finally, on 14 March 1956, the school, which had been redesignated the USAF Flight Test Pilot School on 9 June 1955, moved into its present, specifically designed, facility at Main Base (Saxon et al. 1989).

In response to the space race, Congress allocated over $10 million in 1961 to expand the school curriculum to include aerospace and Astronautics training. The school was redesignated the USAF Aerospace Research Pilot School to reflect this change (Saxon et al. 1989; Komporlides 1996). However, following the Apollo 11 mission to the moon in 1969, funding for aerospace training was reduced. The school changed its focus again and began training students to conduct complete aircraft appraisals. This involved testing entire aircraft systems, not just performance and flying qualities. In 1972, the school was redesignated the USAF Test Pilot School.

1.3.17 The Jet Propulsion Laboratory Edwards Test Station and the Unmanned Space Program

The Jet Propulsion Laboratory (JPL) originated in 1936 as part of the Applied Mechanics program at the Guggenheim Aeronautical Laboratory/California Institute of Technology (GALCIT), Pasadena, California.

After America and Great Britain learned of the existence of German rockets during World War II, GALCIT urged the Army Air Forces to develop rockets of its own. The Army Ordnance Department expressed a greater interest in the technology than the Army Air Forces and contracted GALCIT to design and develop a series of liquid-fueled rockets. The project was known as the Ordnance Department, California Institute of Technology (ORDCIT) Project (Hudlow 1995b).

In 1945, JPL constructed the ORDCIT test station at isolated Muroc Flight Test base to conduct static tests of hydrogen-oxygen liquid propellant engines. The Corporal missile was the first major liquid propulsion project tested there.

Following development of the Corporal missile, JPL began developing the Sergeant missile. In 1963, the Sergeant program moved to the JPL Edwards Test Station (The ORDCIT test station had been renamed the JPL Edwards Test Station in 1951). The Sergeant program resulted in the development of the first efficient solid rocket propellant (Hudlow 1995b).

Following completion of the Sergeant program, JPL turned away from classified military research. It ended its association with Army Ordnance in order to focus on space research (Hudlow 1995b).

In December 1958, JPL was absorbed by the newly created National Aeronautics and Space Administration (NASA). The JPL did not want to become an anonymous facility supporting NASA's manned space program. The JPL chose to focus on the unmanned space program, where it would have the primary role (Hudlow 1995b).

The JPL developed the Ranger lunar explorers in the early 1960s, the Surveyor lunar landers in the mid-1960s, the Mariner Venus and Mars landers and probes in the 1960s and early 1970s, the Viking Mars orbiters and landers in the early 1970s, and *Voyagers 1* and *2* which conducted flybys of Jupiter, Saturn, Neptune, and Uranus in the 1970s and 1980s. The liquid propulsion rocket motors for all of these spacecraft were tested at the JPL Edwards Test Station (Hudlow 1995b).

1.3.18 Missiles and Man in Space at the Rocket Test Facility (Air Force Research Laboratory)

In 1933, Colonel Hap Arnold directed 2nd Lieutenant Arno H. Leuhman to survey a 300-square-mile area in the Mojave Desert that would later become Muroc Bombing and Gunnery Range. During this survey, Lieutenant Leuhman mapped a large, rocky ridge to the east of Rogers Dry Lake, which was named for him. Thirteen years later, Leuhman Ridge became a rocket test facility (Kilanowski, Stowe, and Wessel 1993).

Immediately after World War II, the Government had not perceived a need for strategic missile systems. The President Harry S. Truman administration did not realize that the nuclear bombs developed after World War II were too heavy for existing bombers and that additional research was needed to develop missiles powerful enough to deliver them. Competition for funding among different arms of the military for their individual missile programs also handicapped missile research (Komporlides et al. 1996c).

In 1947, the Air Force chose Leuhman Ridge at Muroc AAF to be the site of its rocket engine test facilities because it was remote but still near a large runway, a railroad, the Rocket Propulsion sections of the Power Plant Branch at Muroc Flight Test base, the ORDCIT test station, and aircraft manufacturers in Los Angeles. The site also possessed steep granite slopes, providing a solid foundation for the test stands, and the Government already owned the land (Kilanowski, Stowe, and Wessel 1993; Komporlides et al. 1996c).

In 1947, the Government awarded Aerojet Engineering Corporation the contract to construct an Air Force Experimental High-Thrust Rocket Test Station, and the Army Corps of Engineers began installing infrastructure, such as roads and utilities, for the facility. In 1949, the Air Materiel Command formed a Rocket Branch at the Muroc facility, and the Army Corps of Engineers began constructing nontechnical facilities at Leuhman Ridge in November. Aerojet Engineering Corporation began constructing the technical facilities in February 1950 (Komporlides et al. 1996c).

The Rocket Branch moved into the newly completed administrative buildings at the Experimental Rocket Engine Test Station (ERETS) on 28 January 1952. Two test stands, 1-3 and 1-5, were also completed in 1952 (Komporlides et al. 1996c).

Rockets tested at ERETS in 1953 included captured German V-2 rockets, the North American Navaho that became one of the United States' first cruise missiles, and the Boeing Bomarc surface-to-air missile (Bupp et al. 1994; Komporlides et al. 1996c). The number of tests soon outstripped the ability of two test stands to support them, so the ERETS constructed additional test positions on Test Stand 1-3 and 1-4,

completed Test Stand 1-4, and constructed Test Stand 1-21 for the Bomarc program (Komporlides et al. 1996c).

From the beginning, personnel at the ERETS tested different components for each type of missile, different generations of each missile, and different missiles concurrently. Testing also occurred concurrently with research. Testing for the Navaho, Bomarc, Atlas, Thor, Jupiter, and Titan programs overlapped, and often information gathered during one program was immediately applied to another (Komporlides et al. 1996c).

By 1958, the Rocket Engine Test Laboratory (RETL) had 10 test stands: 1-A, 1-3A, 1-3B, 1-4, 1-5A, 1-5B, 1-5C, 1-1, 1-2, and 1-21 (Kilanowski, Stowe, and Wessel 1993). In May of that year the RETL was renamed the Directorate of Missile Captive Test (Komporlides et al. 1996c).

On 4 October 1957, the Soviet satellite *Sputnik* launched the Cold War space race, galvanizing American commitment to the missile and space program. One month later, the Guided Missile Research Division, renamed the Space Technology Laboratories, became a subsidiary of the Ballistic Missile Division, and the mission of the RETL expanded to include development of rocket engines that could transport a manned spacecraft to the moon (Komporlides et al. 1996c).

In 1959, the Rocket Propulsion Division at the Wright Air Development Center, Ohio moved to Edwards AFB and combined with the Directorate of Missile Captive Test as part of a reorganization of the missile program following the creation of NASA. The mission of the rocket test facility changed from missile testing to the development of rocket propulsion systems for the space program (Komporlides et al. 1996c). The facility's function also expanded to include research and development in addition to testing (Kilanowski, Stowe, and Wessel 1993).

The facility was reorganized again in 1960, becoming the Directorate of Rocket Propulsion (DRP). In addition to developing propulsion systems, the DRP also developed research guidelines and defined the roles various agencies, such as the Department of Defense and NASA, would play in rocket propulsion development (Komporlides et al. 1996c). NASA chose the Rocketdyne F-1 rocket engine for the Apollo spacecraft, and "All F-1 engines were test fired three times on static test stands at [Leuhman Ridge] before embarking on the flight to the moon" (Komporlides et al. 1996c).

Research and technology activities at the Air Force Rocket Propulsion Laboratory were phased out in 1967, and it was reassigned to Headquarters Air Force Systems Command under the Directorate of Laboratories (Bupp et al. 1994). After Rocketdyne completed F-1 testing, the Air Force Rocket Propulsion Laboratory studied spacecraft and orbital transfer technologies and supported development of the Environmental Research Satellite. By 1971, development and testing of the reusable XLR-129 liquid rocket engine used as the main engines for the Space Shuttle had begun at the facility (Komporlides et al. 1996c).

In December 1990, the Air Force Astronautics Laboratory (AFAL) was renamed the Phillips Laboratory Operating Location at Edwards AFB and incorporated into nationwide complex of Phillips Laboratories. The Phillips Laboratories, named in honor of General Samuel C. Phillips, a space technology pioneer, conducted aerospace technology research. In the 1990s, the Phillips Laboratory Operating Location at Edwards AFB developed space transportation technology, power, and structures and conducted propellant and combustion research (Bupp et al. 1994; Komporlides et al. 1996c).

On 31 October 1997, the Phillips Laboratory was renamed the Air Force Research Laboratory.

1.3.19 The National Aeronautics and Space Administration Dryden Flight Research Center

NASA was created by the National Aeronautics Space Act signed on 29 July 1958 (Komporlides et al. 1996b). NASA was given responsibility for all aspects of the United States space program with the exception of weapon systems and military operations. NASA had a peaceful mission, and was empowered to conduct entire programs, from research through implementation (Komporlides et al. 1996b).

NASA began operating on 1 October 1958, and the Flight Research Center at Edwards AFB was subsequently renamed the NASA Dryden Flight Research Center (DFRC) in honor of Hugh L. Dryden, the first NASA Deputy Administrator. After Caltech's JPL was transferred from the Army to NASA in 1958, NASA had jurisdiction over two facilities at Edwards AFB. NASA also played a role in the development of RETL at Edwards AFB, constructing $47 million in facilities on Leuhman Ridge to test engines for satellites and the Mercury, Gemini, and Apollo programs (Komporlides et al. 1996b).

While the rest of NASA focused on Project Mercury and sending astronauts into space, the DFRC focused on the North American X-15 and the joint Air Force/NASA lifting body programs which included the M2-F1, M2-F2, M2-F3, HL-10 and X-24A. On 22 August 1963, NASA test pilot, Joe Walker, broke the altitude record for atmospheric craft by taking the X-15 to a height of 354,200 feet, and on 3 October 1967, the X-15 broke the absolute speed record for winged aircraft; it reached Mach 6.7 with Major William J. "Pete" Knight at the controls (Komporlides et al. 1996b).

1.3.20 Sled Tracks

1.3.20.1 The Rocket Sled Test Track

Northrop Aircraft constructed America's first Rocket Sled Test Track in late 1944 or early 1945 to test the Northrop JB-10 Jet Bomb. The track was located just north of Muroc Flight Test base. The Jet Bomb did not survive the end of the war for which it was designed, and the program was canceled in 1945 (Hudlow 1995a).

The test track lay dormant until 1947 when it was chosen as a test location for the Air Crew Deceleration Project, MX-981, under the command of Dr. John Paul Stapp.

The Air Crew Deceleration Program studied the effects of deceleration on aircraft pilots. Rockets propelled sleds down the track and a hydro-mechanical braking system stopped them, allowing deceleration to be simulated under controlled situations. The project personnel consisted almost entirely of Northrop employees with the exception of Dr. Stapp and the Air Force security personnel (Hudlow 1995a).

Dr. Stapp volunteered as a test subject, hoping to encourage his workers to do the same; seven did. The program's other test subjects included anthropomorphic parachute dummies and chimpanzees, due to their similar size, weight, and, in the case of the chimpanzees, anatomical structure to humans. No one was killed, and no permanent injuries were sustained during the project. Dr. Stapp made a total of 26 runs on the sled track as a test subject, including the first, earning himself the title "The Fastest Man Alive" after breaking the land speed record (Hudlow 1995a).

The program sought to test human endurance and tolerance, and safety equipment. The research determined that humans could withstand upwards of 48 Gs before sustaining permanent injuries. In addition to safety harnesses and seats for use in aircraft, the modern automobile seat belt was a byproduct of the program (Hudlow 1995a).

Another famous development of the Air Crew Deceleration Program was Murphy's Law. The law was unintentionally coined by Captain Edward Murphy who, upon learning a set of strap transducers had been miswired, had complained to a technician at an aircraft laboratory in Dayton, Ohio, that if he can do anything wrong, it will turn out wrong (Hudlow 1995a). Dr. Stapp later paraphrased this exchange at a press conference as, "if it can happen, it will happen" (Nichols 1994).

The Air Crew Deceleration Program ended in 1951, and Dr. Stapp moved to Wright-Patterson AFB, Ohio. The sled track was used for impingement tests in 1951 and 1952 during Project Barbecue (which used pigs as test subjects). The sled track was dismantled in 1958 (Hudlow 1995a).

1.3.20.2 Air Force Flight Test Center Experimental High-Speed Track

Between 1948 and 1949, the Northrop Aviation Company constructed a second sled track in the southern part of the base. This 10,000-foot track was originally called the Free Air Test Facility and later called the AFFTC Experimental High-Speed Track. The track was used from 1949 until 1958; then it was cannibalized to make a 20,000-foot track with a water brake system. The extra 10,000 feet increased the top speed possible on the track from Mach 2 to Mach 4, and it became known as the "world's fastest and straightest railway" (Stiffler 1952).

While the Rocket Sled Test Track tested safety equipment, the Experimental High-Speed Track tested models and full-scale aircraft components at transonic and supersonic speeds.

Either solid- or liquid-propellant rockets powered the sleds. Some of the sleds were build for a particular test and were only used once while others were used again or recycled. Live test subjects were not used as frequently on the Experimental High-Speed Track as they were at the Rocket Sled Test Track. Rhesus monkeys, at least one chimpanzee, one human, and several bears participated in tests (Earth Tech 1996).

The budget for the Experimental High-Speed Track was apparently smaller than the ambitions of those who worked there. Track personnel scavenged materials for support facilities from other parts of the base so that funds could be saved for operating hardware. Even so, some projects were delayed or canceled due to a lack of rocket motors or other materials (Earth Tech 1996).

From 1952 to 1962, between 134 and 219 test runs were made on the Experimental High-Speed Track each year. However, in 1962, focus shifted to the track at Holloman AFB, New Mexico, and the Experimental High-Speed Track at Edwards AFB was deactivated in 1963 (Earth Tech 1996).

APPENDIX I
AIR FORCE STANDARD OPERATING PROCEDURE GUIDANCE

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CULTURAL RESOURCES FACT SHEET

RECOMMENDED GUIDELINES FOR STANDARD OPERATING PROCEDURES IN INTEGRATED CULTURAL RESOURCES MANAGEMENT PLANS

Air Force Center for Environmental Excellence **February 2001**

INTRODUCTION

These guidelines provide assistance for completing or updating the important *Standard Operating Procedure* (SOP) section required in all installation Integrated Cultural Resources Management Plans (ICRMPs) as set forth in Air Force Instruction 32-7065 (See Chapter 2, section 2.2.1). The SOP component to an Air Force ICRMP outlines and describes standard implementation processes or procedures associated with managing cultural resources at an installation. SOPs should sufficiently define the steps necessary to carry out required actions during most routine situations. Unfortunately in many ICRMPs, SOPs are "boilerplate" providing no specific information useful for handling situations Air Force Cultural Resource Managers are likely to encounter at their installations. Most current SOPs are ineffective because they tend to (1) focus on regulations, (2) are prepared by contractors who have a vague knowledge of what base Cultural Resource Managers and staff actually do, (3) fail to identify responsibilities and the procedures to follow, or (4) are not developed and coordinated with other base personnel who also play a role in the successful implementation of the SOPs.

TIPS IN DEVELOPING STANDARD OPERATING PROCEDURES

1. SOPs help ensure that installations can complete their missions. SOPs are ***not*** about regulations. The USAF mission is organized around tasks and goals supporting our national defense. SOPs:
   - address specific situations
   - are triggered by specific events
   - are carried out by specific responsible organizations and their points of contact.

2. In preparing a SOP in the ICRMP, do not paraphrase or mirror regulatory procedures. Simply cite them. This avoids unnecessary amendments to the ICRMP if the regulation changes (citations generally do not change).
   - SOPs describe internal installation procedures (per AFI 32-7065)
   - Identify the specific responsible individuals or office symbol, i.e., the person(s) or specific organization responsible for carrying out each part of the procedure
   - The SOPs must identify tasks and duties of all people involved with the procedure, not only the base Cultural Resources Manager and staff

3. ***Do not*** create procedures that require coordination with outside agencies, tribes, and other parties, ***unless existing regulatory procedures fail to address the situation.*** In these rare cases, identify specific offices in outside agencies and describe the methods and required documents for use in coordination.
   - Relate SOPs to typical situations or activities and where they might apply (e.g., training exercises, construction, maintenance, development, demolition, transfer of ownership, leases)
   - Identify events that initiate or trigger specific SOPs
   - Pair every SOP action with a specific responsible individual or organization
   - Link any critical action requiring a decision to a designated office symbol or a backup
   - Identify chains of command within the installation and how information about projects and training flows
   - Describe how projects are reviewed

- Identify what limits there might be on the authority of key personnel. Identify who "decides" and who only "advises" the decision-makers. Indicate the primary point of contact for giving the order to execute the task. Identify the decision maker(s).

4. SOPs must be understood by all and all of those identified as part of the SOP must be aware of their responsibility. Designated points of contact need to know ***what*** to do, ***who*** to contact, and ***what to expect*** as a result of the situation requiring action. Use clear, direct sentences, such as, "Set up a 50 foot buffer zone around the location" or "Await further instructions from the unit commander". SOPs supplement regulations; they do not replace them. A SOP can exceed regulatory requirements, but may not stipulate less.

5. The installation's Cultural Resources Manager takes an active role in developing SOPs for inclusion in the ICRMP. Contractors hired to create or update ICRMPs should interview installation staff members to ensure SOPs are integrated into the installation chain-of-command and authority. It is the responsibility of installation Cultural Resources Managers to ensure that SOPs are relevant to the installation and its mission(s).

6. The installation Cultural Resources Manager should determine, or should work closely with the contractor preparing the ICRMP to determine which of these or other events or activities are relevant to that installation.

GUIDELINES FOR SOPS

SOPs are directly related to (1) situations, (2) triggering events, and (3) responsible individuals. To illustrate this in the ICRMP, organize SOPs by situations or triggering events, ***not*** by statutes or regulations. Here some recommendations in preparing the SOP(s):

1. It is a good idea to list responsible parties/organizations according to their day-to-day cultural resources activities. Those organizations with the least involvement should be listed first so they can quickly identify their specific role without reading through the rest of the SOP. Those who deal with cultural resource issues frequently should be familiar with how the SOPs apply to them.

2. Provide tables or charts at the beginning of the SOP section or chapter listing the primary office of responsibility and the specific SOPs that apply to them. List common situations and events that trigger the need to implement SOPs in a separate table. Add corresponding ICRMP page numbers to the tables for quick reference.

3. Keep task lists short and specific for each responsible party. List similar tasks from SOP to SOP for each office of primary responsibility to the extent practicable. It is easier for those who are less frequently involved with associated tasks to remember one or two series of 5 equal or similar steps than to remember 5 or 6 situations, each with its own series of steps.

4. State an overall goal for each responsible party when listing their tasks (e.g. "Protect the location," "Coordinate with the base Civil Engineer and the Cultural Resources Manager," "Ensure compliance with DOD American Indian Policy." See examples below for additional sample goals).

5. Identify key individuals to notify or who are responsible for making decisions for each situation or triggering event in the SOP. Generally, the lists of key individuals include, but are not necessarily limited to, the unit commander, the base civil engineer, the environmental flight commander, and/or the Cultural Resources Manager.

6. Focus specifically on what the responsible party is expected to do with respect to the goals and tasks listed in the SOP. For example, maintenance crews and unit commanders do not need to be familiar with the details of the section 106 process. What they need to be concerned with is ***when*** to implement the SOP, ***who*** they need to contact (chain-of-command), and ***what*** they need to do pending further instruction(s) through the chain-of-command.

Remember: SOPs should focus on specific situations triggered by specific events. Specific responsible parties should be identified to carry out activities related to each SOP. SOPs should cite, but not paraphrase policies and regulations.

For more information, contact: James D. Wilde, PhD, Archaeologist, at DSN 240-6546 (James.wilde@hqafcee.brooks.af.mil), or Julia Cantrell, Cultural Resources Specialist, DSN 240-3515 (julia.cantrell@hqafcee.brooks.af.mil), HQ AFCEE/ECC, 3207 North Road, Brooks AFB, TX 78235-5363.

EXAMPLE STANDARD OPERATING PROCEDURE

Inadvertent Discovery of Human Remains on AF Lands

Statutes: Native American Graves Protection and Repatriation Act, National Historic Preservation Act, Archaeological Resources Protection Act.

***Regulations*:** 42 CFR Part 10; 36 CFR Part 800, Part 60; 32 CFR 229; 36 CFR 79

***Applies to*:** Range managers; operations managers; field units; unit commanders; training site managers, maintenance crews and foremen; construction crews; contractors; Cultural Resources Managers; Natural Resources Managers.

***Typical Situations*:** Ground disturbance from construction, repair, and maintenance activities (digging, bulldozing; or clearing-and-grubbing); off-road traffic; field units on exercises; outdoor recreation; and observation of eroded areas, gullies, dirt trails, road cuts, and badger or gopher burrows and mounds.

***Typical Triggering Events*:** Discovery of human bone or unmarked graves, possibly associated with American Indian funerary pottery; American Indian bone or stone tools, prehistoric ruins; Archaeological features (see definitions).

Policy*:** "If inadvertently discovered human remains are those of a Native American, they fall under the purview of NAGPRA. The AF installation or unit commander shall…" Here and here alone, could be included a summary of Federal regulatory procedures. ***The summary should be written for non-technical AF staff and non-technical reviewers of the ICRMP to ensure they understand the procedures and their legal basis.

Procedures

Scenario I: Discovery *of human remains or possible NAGRPA artifacts during excavation of utility lines*.

A. Contractors and/or base CE employees.

   1. Goals: Protect the location and any remains and artifacts pending further instructions.

   2. Tasks include:
      a. Immediately stop activity at and near the discovery location.
      b. Notify the supervising unit commander (e.g., base Civil Engineer [BCE], Deputy BCE) and Contracting Officer (CO).
      c. Establish a 150-ft buffer zone around the location.
      d. Avoid the buffer zone. Stay on existing roads if traveling through the buffer zone.
      e. Await further instructions through the chain of command.

B. Unit Commander.

1. Goals: Implement protective measures pending advice from the Cultural Resources Manager.

2. Tasks:
   a. Ensure that all steps in A above are implemented.
   b. Immediately notify the Cultural Resources Manager.
   c. Identify the backup for the Cultural Resources Manager as ….(fill in the blank).
   d. Wait for further directions from the Cultural Resources Manager.
   e. Ensure that activities ***outside*** the buffer zone proceed as necessary.

C. Cultural Resources Manager.
   1. Goals: Gather information; consult IAW statutes and policy; advise Unit Commander.

   2. Tasks:
      a. Ensure the location and remains are protected.
      b. Ensure that all remains and artifacts are accounted for and properly labeled and packaged if removed from the ground.
      c. Consult with HQ MAJCOM (and HQ AFCEE if desired).
      d. Notify the medical examiner if required or appropriate.
      e. Take steps to identify the cultural affiliation of the remains, i.e., conduct stratigraphic analyses, Archaeological excavations, osteological analysis, artifact analyses, and/or radiocarbon assay, to determine that the remains are likely those of Native Americans, and therefore, under the purview of NAGPRA.
      f. If the evidence supports a Native American affiliation, immediately notify potentially affiliated Tribal Cultural Resources POC(s) and the SHPO/Tribal Historic Preservation Officer (THPO). If the evidence supports a non-Native American affiliation there is no NAGPRA compliance issue. In this latter case, removed skeletal elements and associated artifacts and samples must be collected, reported, and curated properly under ARPA and 36 CFR 79.
      g. If the remains are NAGPRA objects: Consult IAW 36 CFR 800, NAGPRA and 43 CFR 10.4 and 10.5, ARPA and 32 CFR 229 (if ARPA permit is required for excavation and recovery; REMEMBER, ARPA permit is not required for testing by AF archeologists or AF contractors to evaluate the site and/or identify affiliation of remains).
      h. Inform field personnel and/or contractor on the course of action. If the remains are NAGPRA objects, inform also on the required Plan of Action.
      i. With the commander's approval, authorize utility work to continue after proper execution of the Plan of Action.

Scenario II: *Discovery of human remains during Phase I (inventory) or Phase II (National Register evaluation) Archaeological investigations*.

A. Contractor… [ETC., goal and task lists should be similar to example above]

Other Possible SOP-Triggering Events and Activities (there are many in addition to those listed here)

- Accidents (Aircraft, Vehicular, or Other) Affecting Historic Properties
- American Indian Access to Sacred Sites or Traditional Cultural Properties
- Coordinating Planned Construction or Maintenance Activities with Proponents
- Cultural Resources Contracting
- Hazardous Spills Affecting Historic Properties
- Historic Building Demolition
- Initiating Environmental Impact Analysis Processes (EIAP)
- Jettisoned Ordinance or Fuel Tanks Affecting Historic Properties
- Natural Emergencies Affecting Historic Properties
- Rehabilitation of Historic Properties
- Suspected Vandalism or Looting of Archaeological Sites

Special thanks to Ms. Shellie Sullo Prewitt, Cultural Resources Program Manager, Texas Army National Guard; whose clear ideas sparked the creation of these guidelines. Visit the excellent Texas Army National Guard (TXARNG) Camp Mabry website at http://www.agtx-ev.pollution.org/cr/index.htm for examples and models of very useful Standard Operating Procedures.

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APPENDIX J
MANAGEMENT REGION REPORTS

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MANAGEMENT REGION REPORTS

1.1 Management Region Reports and Sample Survey Summary

In 1995, the Edwards BHPO designed a systematic sample survey of a quarter of the base in order to characterize the nature, extent, and types of cultural resources present. This survey was completed by the end of FY1999. The following information is taken from the BHPO's description of the Edwards AFB sample survey (Norwood 1995).

A stratified, aligned, random sample based on the Township, Range, and section grid was adopted. The sample units consist of the southwest quarter (160 acres) of each 640-acre section. The southwest quarter was selected randomly. Only sample units located entirely within the Edwards AFB boundaries were permitted in the sample, resulting in the selection of a total of 460 sample units for the survey. The sample survey encompassed 73,600 acres, 24.45 percent, of the 301,000 acres of the base.

This sampling strategy was chosen for six reasons.

a. It can be easily applied. The sample units are easy to reference and locate on maps and often can be easily located in the field using historic section roads and survey monuments.

b. It can be universally applied by different contractors.

c. The sample units are widely distributed, ensuring coverage of the different use areas and microenvironments on base.

d. The stratification is not based on complex variables such as soil or vegetation type that are not yet clearly delineated for the base.

e. Both prehistoric and historic resource types will be represented.

f. The 160-acre, square, sample unit is small enough for the coverage to be completed by a four-person crew in 1 day.

In order to prioritize the order in which the sample units were surveyed, the BHPO divided Edwards AFB into five management regions, which are further, subdivided into a total of 27 management areas (Figure J-1). Creation of these divisions is based on a combination of land use, logistical, and mission use factors such as density of and proximity to development, type of development, differential access, physiographic boundaries such as watersheds and ridge systems, and "hard" political boundary delineation's such as the fenced PIRA region. The sample grid is superimposed over these management regions and areas (Figure J-2).

The focus of the survey effort was prioritized based on four criteria.

a. Known and anticipated mission land use needs.

b. Differential intensity of current base land use.

c. The intensity of looting and other adverse effects due to encroachment (i.e., motorcycle use and sheep grazing).

d. The probability of identifying potentially eligible sites based on environmental variables.

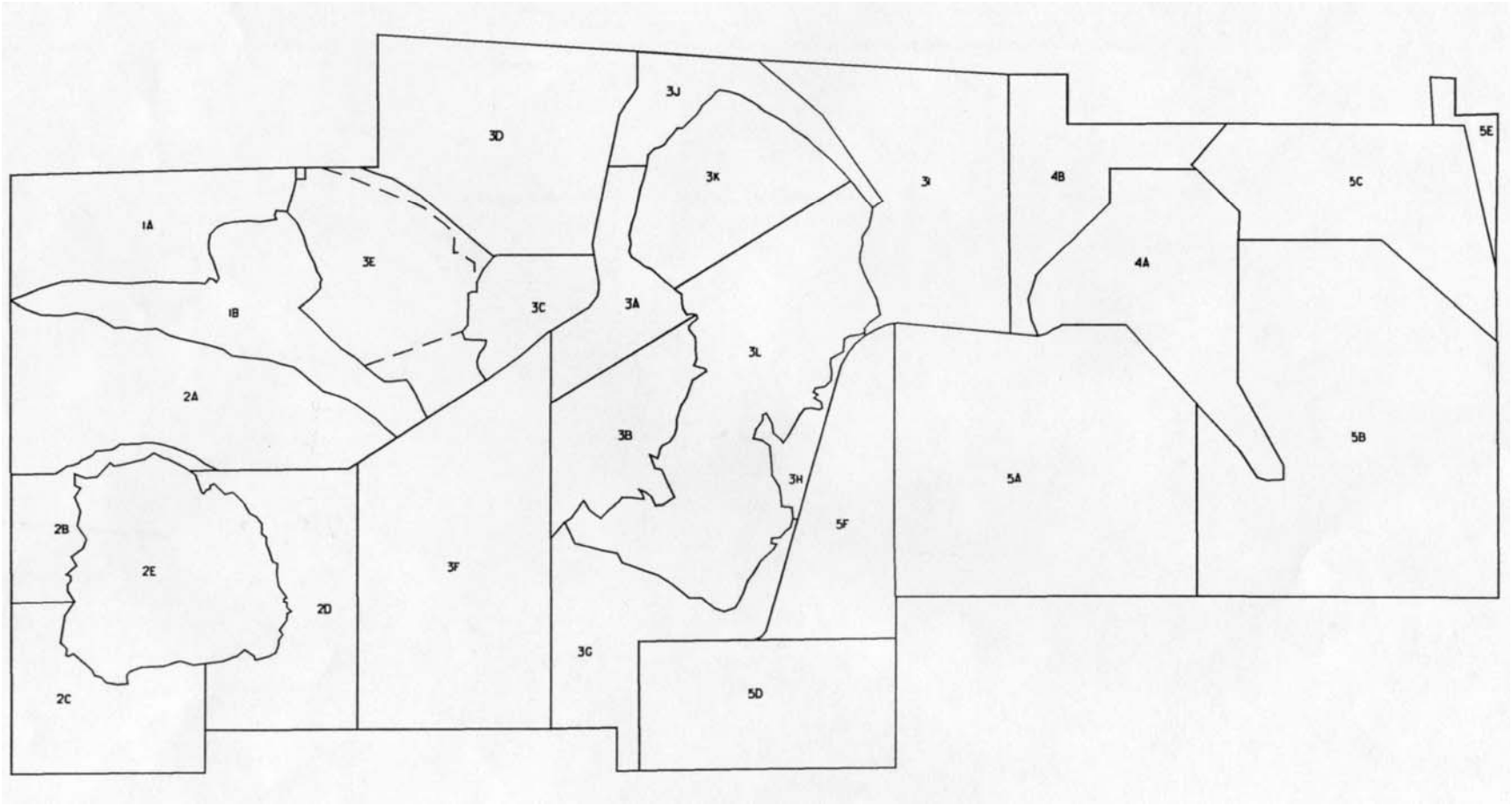

Figure J-1. Cultural Resource Management Areas

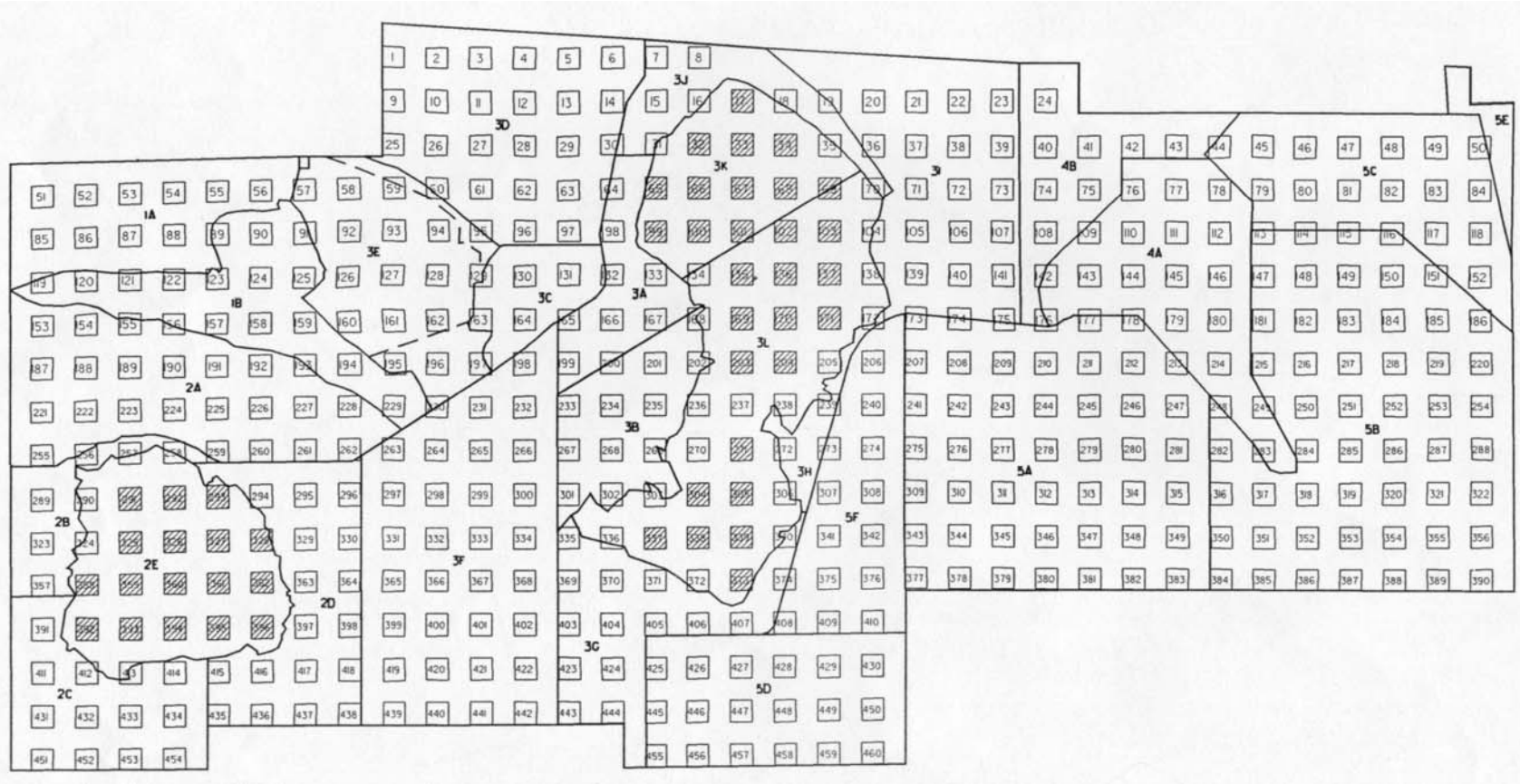

Figure J-2. Sample Survey Units and Management Area

The sample units with the highest priority to be surveyed were those in the most heavily used management areas or management areas with the greatest potential for containing significant cultural resources. Management areas that are less intensively used and with less cultural resource sensitivity were surveyed later. The first sample units were surveyed at Piute Ponds, on the PIRA, and in the vicinity of Rich Road because of anticipated activities in these areas. Once all the sample units are surveyed within a management area, the results of the sample surveys will be summarized in a single report.

The results of the sample survey will be documented in five reports. One report will be prepared for each of the five management areas. The data generated by the sample survey will be used to refine Edwards AFB GIS databases and maps depicting cultural sensitivity. This data will be a useful planning tool for general use.

It is anticipated the completion of the survey will reduce the need to perform 100-percent survey coverage in some remaining survey areas. In cases where unsurveyed areas are surrounded on three or more sides by units that do not contain sites, the BHPO will only require a judgmental survey or field check of the area. In cases where none of the sites surrounding units are potentially eligible for the NRHP, the BHPO will allow areas to be systematically surveyed at increased interval widths (30 to 50 meters) (Norwood 1995).

1.2 Management Summary (MR 2)

This survey report presents the results of the Cultural Resource Inventory, Letter of Technical Direction (LOTD) 17P9D3000, Management Region (MR) 2 on Edwards Air Force Base, California. The sample survey effort was undertaken in support of section 110 of the National Historic Preservation Act of 1966, as amended, and AFI 32-7065, *Cultural Resource Management*. This report also provides an overview and synthesis of all cultural resources work and findings in the entire management region, as well as a management plan for the region. It characterizes the cultural resources in each of Management Region 2's component management areas. The management plan is region-specific and draws conclusions, as well as makes recommendations regarding future cultural resource management in the region.

Management Region 2 lies within Los Angeles and Kern counties in the State of California. The total area of Management Region 2 is 50,689 acres (20,513 ha). It is depicted on the Rosamond, California; Rosamond Lake, California; Bissell, California; and Redman, California; USGS quadrangles, photorevised 1973 and the Edwards, California, USGS quadrangle, photorevised 1992. A total of 78 160-acre (64-ha) sample survey units were completed in Management Region 2, a total of 12,480 acres (5,054 ha). Within the sample area, 35 percent, or 4,375 acres (1,770 ha) were previously covered or did not require survey. A total of 60 survey units were completed as a result of this investigation. There are 533 total recorded cultural resource sites in Management Region 2, 201 prehistoric sites and 332 historic period sites. Of these, 42 percent are located within sample survey units.

Computer Sciences Corporation archeologists conducted archival research, made field visits, photographed artifacts, and prepared this report from 5 August 1998 to 17 January 2000, spending 1,980 work hours. Information was collected from existing site records, homestead patent records, historic period maps, a newspaper article sample survey summary forms, and existing reports.

A total of 93 paleontological localities have been identified in Management Region 2. Of these, one was identified during the sample survey effort. Additional paleontological surveys are recommended for Management Areas 2A and 2D.

A total of 40 prehistoric sites are recommended for Phase II testing in Management Region 2. Infill survey in the vicinity of associated sample survey units is recommended in conjunction with Phase II evaluation of sites. This includes Sample Survey Units 187, 192, 227, 260, 289, 294, 296, 431, 451, and 436. Infill survey may also be needed in the unsampled half sections on the west edge of Management Region 2 in the vicinity of sites 857, 1178, 1733, and 2999.

A total of 41 prehistoric sites are recommended for testing under the California Archaeological Resource Identification and Data Acquisition Program for Sparse Lithic Scatters.

A total of 36 historic period sites are recommended for Phase II testing in Management Region II. Infill survey in the vicinity of associated sample survey units is recommended in conjunction with Phase II evaluation of sites. This includes Sample Survey Units 187, 221, 255, 261, 256, 257, 258, 289, 290, 291, 292, 294, 323, 328, 393, 397, 411, 412, 413, 414, 415, 416, 417, 431, 436, 437, 438, 451, 452, and 454.

A total of 34 historic period refuse deposits are recommended for standardized testing to determine eligibility.

No additional infill survey is recommended in Sample Survey Units 190, 223, 228, 325, 326, 358, 359, 360, 361, 394, and 395.

1.3 Management Summary (MR 3)

This survey report presents the findings of the Cultural Resource Inventory of Management Region 3 on Edwards Air Force Base, California, Letter of Technical Direction 17P9D3000. The sample survey effort was undertaken in support of section 110 of the National Historic Preservation Act of 1966, as amended, and Air Force Instruction 32-7065, *Cultural Resource Management*.

This report also provides a discussion of all cultural resource findings in the entire management region as well as management considerations. It characterizes affects to cultural resources in each of Management Region 3's subcomponent management areas. The management considerations are region-specific and draw conclusions, as well as make recommendations, regarding future cultural resource management.

Management Region 3 lies within Los Angeles and Kern counties in the State of California. The total area of Management Region 3 is 117,216 acres. It is depicted on the Bissell, California; California City South, California; Leuhman Ridge, California; and North Edwards, California, United States Geological Survey (USGS) quadrangles, photorevised 1973; and the Edwards, California; Redman, California; Rogers Lake North, California; and Rogers Lake South, California, USGS quadrangles, photorevised 1992. A total of 184 160-acre sample survey units are located in Management Region 3 (29,440 acres). Within the sample area, 32 percent, or 9,314 acres were covered previously or did not require survey. There are 1,195 recorded cultural resource sites in Management Region 3; 563 prehistoric sites and 632 historic period sites. Of these, 42 percent are located within sample survey units.

Archaeologists conducted archival research, photographed artifacts, and prepared the FINAL version of this report from 12 February 1999 to 6 September 2001, spending 2,980 work hours. Information was collected from existing site records, homestead patent records, historic period maps, sample survey summary forms, and existing reports.

Eighty-two prehistoric sites are recommended for Phase II testing in Management Region 3. Infill survey in the vicinity of associated sample survey units is recommended in conjunction with Phase II evaluation of sites. This includes Sample Survey Units 17, 97, 129, 130, 161, 164, 165, 197, 234, 263, 265, and 402.

A total of 110 historic period sites are recommended for Phase II testing in Management Region 3. Infill survey in the vicinity of associated sample survey units is recommended in conjunction with Phase II evaluation of sites. This includes Sample Survey Units 4, 21, 94, 95, 139, 160, 165, 166, 265, 268, 300, 301, and 302.

A total of 236 paleontological localities were previously identified in Management Region 3. Eight additional localities were recorded during the sample survey effort.

1.4 Management Summary (MR 5)

This report presents the results of the Cultural Resource Inventory, Letter of Technical Direction 17P9D3000, Management Region 5 on Edwards Air Force Base, California. The sample survey effort was undertaken in support of section 110 of the National Historic Preservation Act of 1966, as amended, and Air Force Instruction 32-7065, *Cultural Resource Management*. This report also provides an overview and synthesis of all cultural resources work and findings in the entire management region, as well as a management plan for the region. It characterizes the cultural resources in each of Management Region 5's component management areas. The management plan is region-specific and draws conclusions, as well as makes recommendations, regarding future cultural resource management in the region.

Management Region 5 lies within Los Angeles, Kern, and San Bernardino counties in the State of California. The total area of Management Region 5 is 95,245 acres. It is depicted on the Redman, California; Rogers Lake North, California; and Rogers Lake South, California; USGS quadrangles, photo revised 1992, and the Jackrabbit Hill, California; Kramer Junction, California; Leuhman Ridge, California; and Red Buttes, California, USGS quadrangle, photo revised 1973. A total of 145 160-acre sample survey units are located in Management Region 5, a total of 23,200 acres. Within the sample area, 37 percent (8,638 acres) were previously covered or did not require survey as part of the Sample Survey effort. A total of 14,562 acres were surveyed during the Sample Survey. There are 939 recorded cultural resource sites in Management Region 5. Of these, 600 are prehistoric sites and 339 are historic period sites. Of these, 48 percent are located within sample survey units.

Computer Sciences Corporation archeologists conducted archival research, made field visits, photographed artifacts, and prepared this report from September 1999 to March 2001, spending 1,490 work hours. Information was collected from existing site records, homestead patent records, historic period maps, a newspaper article, sample survey summary forms, and existing reports.

A total of 242 paleontological localities have been identified in Management Region 5. Of these, 42 were identified during the sample survey effort.

A total of 86 prehistoric sites are recommended for Phase II testing in Management Region 5. Infill survey in the vicinity of associated sample survey units is recommended in conjunction with Phase II evaluation of sites. This includes Sample Survey Units 50, 116, 207, and 446.

A total of 58 historic period sites are recommended for Phase II testing in Management Region 2. Infill survey in the vicinity of associated sample survey units is recommended in conjunction with Phase II evaluation of sites. This includes Sample Survey Units 116, 149, 183, 206, 207, 375, 377, 428, and 455.

No additional infill survey is recommended in Sample Survey Units 113, 147, 352, 353, 354, 355, 385, 386, 387, and 388.

APPENDIX K
MISSION ACTIVITIES AND CULTURAL RESOURCES

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MISSION ACTIVITIES AND CULTURAL RESOURCES

1.0 ACTIVITIES ARE PERFORMED ON A ROUTINE BASIS.

1.1 Grading of Roads

The following roads are graded frequently:

- South Road East of Jack Rabbit Hill
- Photo Resolution Road, West Haystack
- Centerline
- The length of the road to Precision Bombing (PB)-6
- Most of the Autobahn
- West Foul Line from PB-1 south to Centerline

Future grading of these roads can occur without further permission, but the ground rules of not extending beyond the existing road width holds.

1.1 Precision Impact Range Area (PIRA)

The following targets are culturally cleared

- PB-1, 2, 6, 8, 10, 11, 12
- Installation of cable, fiber, water, gas and other utility systems
- Installation of stationary targets
- Moving of mobile facilities
- Prepare, build, erect, maintenance, and upgrade of stationary and mobile facilities
- Build/erect new buildings (less than 12,000 square feet [sq ft])
- Build/erect new buildings (greater than 12,000 sq ft)
- Maintenance and repair of buildings
- Use of approved borrow pits – Active North Flank, B-4, Jack Rabbit Hill
- Inactive South Flank Road at Foul Line, East Range adjacent to PB-6
- Training exercises
- Operations and maintenance of construction equipment
- Cleaning, painting, servicing, and repair of facilities and equipment
- Drainage/ditch cleanup and grading
- Landscaping and revegetation
- Soil borings
- Well installation and maintenance
- Installation, repair, and maintenance of aboveground storage tanks
- A variety of fly-bys, drop tests, target shots, and other flight mission activities
- Range cleanup
- Installation/maintenance of Radar/Comm towers

- Add-ons
- Release, impact and recovery of weapons and aerodynamic test vehicles
- Operation of directed energy systems to include lasers and radio frequency (RF) emitters
- Low-altitude, high speed (to include supersonic) overflight and maneuvering flight-test operations

1.3 Air Force Research Laboratory

- Renovation and repair of test stands and test equipment
- Tortoise exclusionary fence installation and repair
- Human exclusion fence installation and repair
- Maintenance of existing dirt roads, without names.
- Maintenance clearing and grubbing of exclusionary zones around test areas (1-36, 1-100, for example) not to mention bombing targets, and explosive bunkers
- Clearing area of desert of debris to support testing (i.e. the area of desert that was cleared of all metallic objects in support of the Leonid Storm tracking project)
- Maintenance and repair of evaporation ponds
- Maintenance and repair of deluge/cooling water systems for test stands to include waterlines, trenches, canals, and coffer dams
- Build up and tear down of test chambers and test facilities
- Removal of shrapnel/debris as well as unconsumed propellants and explosives

1.4 Civil Engineering Group

- Install, maintain, and repair High and Low Voltage Power Distribution Systems, poles and underground cables
- Maintenance of cathodic protection systems
- Maintenance of airfield lighting systems
- Maintenance of emergency generators (repair, filter and oil changes)
- Maintenance of Aircraft Arresting Systems on runway
- Hook-up of emergency generators to buildings, power systems, equipment, etc
- Repair of fiber-optic cable
- Maintenance and repair of high and low voltage switchgear
- Installation/maintenance and repair of energy monitoring and control system (EMCS)
- Maintenance and repair of radio telemetry system
- Calibrate and adjust protective relays
- Sewer liftstation installation and maintenance
- Well demolition
- Water well maintenance
- Repair and maintenance of aboveground water storage tanks
- Installation, repair, and maintenance of water, sewer, gas main distribution systems
- Maintenance and repair to sewer lift stations

APPENDIX L
LIST OF ABBREVATIONS AND ACRONYMS

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LIST OF ABBREVIATIONS AND ACRONYMS

95 ABW/CC	95th Air Base Wing/Commander
95 ABW/EM	95th Air Base Wing/Environmental Management
95 ABW/EMXC	95th Air Base Wing/ Environmental Management Directorate, Conservation Branch
95 ABW/CEVC	95th Air Base Wing /Environmental Compliance Branch
95 ABW/CEVQ	95th Air Base Wing/Environmental Quality Branch
AAA	American Automobile Association
AAB	Army Air Base
AAF	Army Air Field
A&P	Atlantic and Pacific
ABC	Activity-Based Costing
ABM	Activity-Based Management
ACES	Automated Civil Engineering System
ACES-PM	Automated Civil Engineering System – Program Manager or Project Management
ACES-EQ	Automated Civil Engineering System – Environmental Quality
ACHP	Advisory Council on Historic Preservation
A.D.	anno domini, after death
AF	Air Force
AFAL	Air Force Astronautics Laboratory
AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFFTC	Air Force Flight Test Center
AFI	Air Force Instruction
AFMAN	Air Force Manual
AFMC	Air Force Materiel Command
AFMC/CEVC	Air Force Materiel Command/Environmental Compliance Branch
AFMC/CEVQ	Air Force Materiel Command/Environmental Quality Branch
AFPD	Air Force Policy Directive
AFRL	Air Force Research Laboratory
AIL	Avionic Integrated Laboratory
AIRFA	American Indian Religious Freedom Act
APE	Area of Potential Effect

LIST OF ABBREVIATIONS AND ACRONYMS (Continued)

ARG	Assessment Review Group
ARMR	Archaeological Resource Management Report
ARPA	Archaeological Resources Protection Act
AT&SF	Atchison, Topeka, and Santa Fe (railroad)
B.C.	Before Christ
BCE	base Civil Engineer
BES	Budget Estimate Submission
BHPO	Base Historic Preservation Office
BIA	Bureau of Indian Affairs
B.P.	before present
BPI	Business Performance Indicator
C^4I	Command, Control, Communications, Computers, and Intelligence
CAFH	Center for Air Force History
CAPP	Compliance Assurance and Pollution Prevention Program
CAR	Combat Arms Range
CARIDAP	California Resource Identification and Data Acquisition Program
CATEX	Categorical Exclusion
CE	Civil Engineer
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CEV	Environmental Compliance Branch
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CMECC	California Military Environmental Coordination Committee
CO	Contracting Officer
COE	Corps of Engineers
CPBG	Conservation Programming and Budget Guidance
CR GIS	Cultural Resources Geographic Information System
CRM	Cultural Resources Management
CRMP	Cultural Resources Management Plan
CRPAT	Cultural Resources Process Action Team
DFRC	Dryden Flight Research Center
DOD	Department of Defense
DODI	Department of Defense Instruction

LIST OF ABBREVIATIONS AND ACRONYMS (Continued)

DPR	Department of Parks and Recreation
DRP	Directorate of Rocket Propulsion
EA	Environmental Assessment
EAFB	Edwards Air Force Base
EBS	Environmental Baseline Survey
ECAMP	Environmental Compliance Assessment and Management Program
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EM	Environmental Management Directorate
EMCS	Energy monitoring and control system
EMXC	Environmental Management Conservation Branch
EO	Executive Order
EOD	Explosive Ordnance Disposal
EPC	Environmental Protection Committee
EPF	Environmental Planning Function
EQ	Environmental Quality (ACES-EQ database)
EQR	Environmental Quality Review
ERETS	Experimental Rocket Engine Test Station
ERP	Environmental Restoration Program
FIRMR	Federal Information Resources Management Regulation
FONSI	Finding of No Significant Impact
FR	Federal Register
FY	Fiscal Year
ft	feet
GIS	Geographic Information System
GLO	General Land Office
GPS	Global Positioning System
GSU	Geographically Separated Unit
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HQ	Headquarters

LIST OF ABBREVIATIONS AND ACRONYMS (Continued)

HQ AFMC/CE	Headquarters Air Force Materiel Command/Civil Engineer
IAW	in accordance with
ICRMP	Integrated Cultural Resources Management Plan
IT	Information Technology
JA	Judge Advocate
JPL	Jet Propulsion Laboratory
LOS	Level of Service
LOTD	Letter of Technical Direction
LRMP	Legacy Resource Management Program
MAJCOM	Major Command
MDEP	Mojave Desert Ecosystem Program
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MR	Management Region
NAGPRA	Native American Graves Protection and Repatriation Act
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NCRS	Natural/Cultural Resources Subcommittee
NDA	National Defense Authorization
NEPA	National Environmental Protection Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NOF	Notice of Findings
NPS	National Park Service
NRB	National Register Bulletin
NRHP	National Register of Historic Places
O&M	Operations and Maintenance
O&S	Operations and Support
ORDCIT	Ordnance Department/California Institute of Technology
ORV	off road vehicle
P&Z	Planning and Zoning Committee
PA	Programmatic Agreement or Programmed Amount

LIST OF ABBREVIATIONS AND ACRONYMS (Continued)

PACRAT	Paleontology and Cultural Resource Action Team
PB	Precision Bombing or President's Budget
PHT	Post Hole Test
PIRA	Precision Impact Range Area
PL	Public Law
POM	Program Objective Memorandum
PVC	Polyvinyl Chloride
R&D	Research and Development
RDT&E	Research, Development, Testing, and Evaluation
RETL	Rocket Engine Test Laboratory
RFRPMC	Real Property Maintenance by Contract
SAF/AAIQ	Secretary of the Air Force/Access Programs Office of the Administrative Communications and Records Management Division
SCI	Sensitive Compartmented Information
SF	Security Forces or Standard Form
SHPO	State Historic Preservation Office
SOK	Status of Knowledge
SOP	Standard Operating Procedure
SOW	Statement of Work
SPG	Standardized Programming Guidance
SRU	Surface Recording Unit
SS	Sacred Site
SSU	Surface Scrape Unit
STP	Shovel Test Pit
sq ft	square feet
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Officer
TU	(Formal) Test Unit
TXARNG	Texas Army National Guard
U.S.C. (or USC)	United States Code
U.S.	United States

LIST OF ABBREVIATIONS AND ACRONYMS (Concluded)

USAF	United States Air Force
USGS	United States Geological Survey
WWII	World War II
XP	Plans Directorate or Plans and Programs Office

APPENDIX M
REFERENCES

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REFERENCES

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APPENDIX N
PROGRAMMATIC AGREEMENT REGARDING IMPLEMENTATION OF THE AIR FORCE FLIGHT TEST CENTER MISSION AND THE INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN AT EDWARDS AIR FORCE BASE, CALIFORNIA

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PROGRAMMATIC AGREEMENT

**Programmatic Agreement Among the United States Air Force,
the Advisory Council on Historic Preservation, and
the California State Historic Preservation Officer
Regarding Implementation of the Air Force Flight Test Center Mission and the Integrated
Cultural Resources Management Plan at Edwards Air Force Base, California**

Whereas, the Department of the Air Force (AF), Edwards Air Force Base (EAFB), has determined that implementation of the Air Force Flight Test Center (AFFTC) mission at EAFB (undertaking) may affect properties included in, eligible, and potentially eligible for inclusion in the National Register of Historic Places (historic properties), and has consulted with the Advisory Council on Historic Preservation (Council) and the California State Historic Preservation Officer (SHPO) in accordance with 36 Code of Federal Regulations (CFR) § 800, regulations implementing section 106 of the National Historic Preservation Act (NHPA) (16 United States Code [U.S.C.] 470f), to take the effects of the undertaking on historic properties into account and to afford the Council a reasonable opportunity to comment on the undertaking and its effects on historic properties; and

Whereas, the AF, the Council, and the SHPO have agreed pursuant to 36 CFR § 800.14(b), that AF compliance with section 106 for the undertaking will be evidenced by execution and implementation of this Programmatic Agreement (PA) and by implementation of the EAFB Integrated Cultural Resources Management Plan (ICRMP); and

Whereas, the recognized American Indian Tribes, who have traditionally inhabited or used the lands within EAFB, have been given the opportunity to participate in development of the PA and the ICRMP, will continue to be provided the opportunity to participate in the implementation, review, and revision of the ICRMP and, as may be necessary, of the PA, and have been invited to become concurring parties to this PA;

Now, therefore, the AF, the Council, and SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic properties, and that these stipulations shall govern the undertaking until this PA expires or is terminated.

STIPULATIONS

To the extent of its legal authority, and in coordination with the Council and SHPO, EAFB shall ensure that the following stipulations are carried out:

1.0 Applicability

This PA will not apply to any action that will result in an adverse effect to a National Historic Landmark (NHL). EAFB shall follow 36 CFR § 800.10 instead of this PA for any action that will result in an adverse effect to an NHL.

1.1 The Undertaking

The undertaking covered by this PA is the AF mission at EAFB. This undertaking consists of:

1.1.1 Supporting the Air Force Materiel Command (AFMC) by conducting and supporting tests of aerospace vehicles, flight evaluation and recovery of research vehicles, and operation of the U.S. Air Force Test Pilot School; and developing, operating, staffing, supporting, and participating in test and evaluation programs for the Department of Defense (DOD) and other government agencies, contractors, and foreign governments. To support this testing, the AFFTC operates and manages the Edwards Flight Test Range. The AFFTC operates a fleet of test bed aircraft for early development and testing of new avionics. The AFFTC also supports and participates in test and evaluation programs for the Air Force, other DOD and government agencies, as well as for contractors and foreign governments; and

1.1.2 The National Aeronautics and Space Administration Dryden Flight Research Center (NASA DFRC), Marine Aircraft Group 46, Air Force Research Laboratory, and the 18th Space Surveillance Squadron (18 SPSS) conduct various activities on EAFB. The NASA DFRC is the nation's preeminent aeronautical research facility, developing new technologies that lead to improved aircraft flight control components and systems. The NASA DFRC also helps transfer new concepts to the United States aerospace industry for commercial and military applications. The mission of Marine Aircraft Group 46 is to organize, train, and equip combat proficient squadrons of Marines to mobilize, augment, and reinforce the active components serving as part of the Marine Corps' total force. EAFB supports the Air Force Research Lab whose mission is to plan, formulate, present, and execute the Air Force's Science and Technology programs. At the Edwards research site, the emphasis is on rocket propulsion concepts, propellants, components, and systems for both missile and space applications. EAFB also supports the 18 SPSS whose mission is to provide direct support to the United States Commander in Chief/Space Control mission through optical space surveillance. EAFB is also entrusted with the stewardship of the environmental resources at the base and is responsible for the conservation and protection of resources present on these lands.

2.0 Integrated Cultural Resources Management Plan

2.1 EAFB Responsibilities

2.1.1 EAFB shall satisfy its responsibilities under sections 106 and 110 of the NHPA and under 36 CFR § 800 for the undertaking by implementing this PA and the ICRMP.

2.1.2 Compliance with stipulation 2.1.1 of these stipulations shall preclude the need for EAFB consultation with SHPO and the Council for individual actions covered by this PA.

2.1.3 At its discretion, EAFB may consult with SHPO and/or the Council pursuant to 36 CFR § 800 for any individual action covered by this PA.

2.1.4 EAFB shall consult SHPO and the Council pursuant to 36 CFR § 800 when an individual action covered by this PA will adversely affect a historic property and the ICRMP does not prescribe measures that would avoid, minimize, or mitigate the adverse effect.

3.0 Administrative Provisions

3.1 Authority to Implement This PA and the ICRMP

3.1.1 The Commander, EAFB, has designated a Base Historic Preservation Officer (BHPO) at EAFB with the authority to implement this PA and the ICRMP on the Commander's behalf and to conduct any coordination and consultation with SHPO and the Council, concurring parties, Tribes, and other concerned agencies, organizations, and persons, that may be required by this PA and the ICRMP.

3.1.2 Routine and regular implementation of the ICRMP may be delegated by the BHPO to other government employees.

3.2 Professional Qualifications Standards

3.2.1 The BHPO will be a government employee meeting at a minimum the Secretary of Interior's "Professional Qualifications Standards" (48 Federal Register [FR] 44738–44739) in at least one of the appropriate disciplines.

3.2.2 Other government employees authorized by the BHPO for routine and regular implementation of the ICRMP shall meet at a minimum the Secretary of Interior's "Professional Qualifications Standards" (48 FR 44738–44739) in the appropriate disciplines. However, nothing in this stipulation shall preclude EAFB from hereunder using principal or permitted investigators under the supervision of the AF who meet the "Professional Qualification Standards."

3.3 Confidentiality

The parties to this PA acknowledge that certain cultural resources covered by this PA are subject to the provisions of § 304 of the NHPA relating to the disclosure of archaeological and sacred site information and, having so acknowledged, will ensure that all actions and documentation prescribed by this PA and the ICRMP are consistent with § 304 of the NHPA.

3.4 Annual Review and Reporting

3.4.1 EAFB will prepare an "Annual Edwards Air Force Base Historical Buildings, Facility, and Archaeological Compliance Report" (Annual Report) to document implementation of the ICRMP for each federal fiscal year that this PA is in effect. In addition, EAFB will prepare an annual update of the ICRMP. Both documents will be submitted concurrently for review and comment to SHPO, the Council, concurring parties, Tribes, and other interested parties by March 1 of the calendar year following the federal fiscal year covered in the Annual Report. The Annual Report shall include a complete summary of all actions that pertain to historic properties; (e.g., undertakings that effect eligible properties, documentation, monitoring reports, etc.), and any ICRMP amendments. The annual update of the ICRMP will include changes, deletions, or additions that may have occurred during the reporting year and status report of implementation of planned actions as stated in the ICRMP.

3.4.2 Reviewing parties shall have 45 days following receipt of the Annual Report and annual ICRMP update to provide EAFB with written comments. Failure of any reviewing party to comment within this time frame shall signify no objection to the Annual Report and annual ICRMP update. EAFB will consider any timely comments received, and within 45 days following such

receipt, will provide the commenting and all other reviewing parties with its response to the comments. Disputes that may arise hereunder shall be addressed pursuant to stipulation 3.5.

3.5 Resolving Objections

3.5.1 Should any signatory object, in writing, to EAFB regarding the manner in which the terms of this PA or the ICRMP are carried out, EAFB will immediately notify the other signatories of the objection and proceed to consult with the objecting signatory to resolve the objection. EAFB will honor the request of any other signatory to participate in the consultation and will take any comments provided by such signatories into account. EAFB shall establish a reasonable time frame for such consultation.

3.5.2 If the objection is resolved through consultation, EAFB may proceed with the action subject to objection in accordance with the terms of such resolution.

3.5.3 If after initiating such consultation EAFB determines that the objection cannot be resolved through consultation, it shall forward all documentation relevant to the objection to the Council, including EAFB''s proposed response to the objection. Within 30 days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

3.5.3.1 Advise EAFB that the Council concurs in EAFB's proposed response to the objection, whereupon EAFB will respond to the objection accordingly; or

3.5.3.2. Provide EAFB with recommendations, which EAFB shall take into account in reaching a final decision regarding its response to the objection; or

3.5.3.3 Notify EAFB that the objection will be referred for comment pursuant to 36 CFR § 800.7(a)(4) and proceed to refer the objection and comment. In this event, EAFB shall ensure that the Air Force is prepared to take the resulting comment into account in accordance with 36 CFR § 800.7(c)(4).

3.5.4 Should the Council not exercise one of the listed options within 30 days after receipt of the pertinent documentation, EAFB may assume the Council's concurrence in its proposed response to the objection.

3.5.5 EAFB shall take into account any Council recommendation or comment and any comment from the other signatories to this PA in reaching a final decision regarding the objection. EAFB's responsibility to carry out all actions under this PA, that are not the subjects of the objection, shall remain unchanged.

3.5.6 EAFB shall provide all other signatories to this PA with a written copy of its final decision regarding any objection addressed pursuant to this agreement.

3.5.7 EAFB may authorize any action subject to objection under this agreement to proceed in accordance with applicable regulations.

3.5.8 Objections pertaining to the National Register of Historic Places eligibility of cultural resources covered by this PA and the ICRMP shall be resolved pursuant to 36 CFR § 800.4(c)(2).

3.5.9 Nothing in this PA shall diminish or negate any rights of the Air Force contained within the NHPA or its implementing regulations, nor shall any additional obligation be implied or inferred from the language in this agreement.

3.6 Public Objections

3.6.1 EAFB may invite other individuals or organizations to comment when an undertaking may have an adverse effect on an historic property. Should an invitee have objections regarding implementation of measures described in the ICRMP, EAFB will normally notify the other signatories, in writing, of the objection and may consult with the invitee, and with any signatory who wishes to participate in the consultation, to consider the objection. Consultation shall consist of one or more meetings with the invitee where specific objections will be described and detailed by the invitee in order to provide the Air Force with the fullest possible understanding of the concern(s) being raised. The Air Force, thereafter, will determine, with the participation of the other signatories, the appropriate and best resolution of the concern(s). EAFB shall establish a reasonable time frame for this consultation.

3.6.2 If the objection is resolved within this time frame, EAFB shall notify all signatories in writing of the resolution, and thereafter may proceed with its action in accordance with the terms of that resolution. If the objection is not resolved within this time frame, EAFB shall render a decision regarding the objection within 14 days after the consultation period expires and provide the objecting party and all other signatories with written notification of its decision. In reaching its decision, EAFB will take all comments from the consulting parties into consideration. EAFB's decision regarding the objection will be final. Following issuance of its final decision, EAFB may authorize the action subject to objection hereunder to proceed in accordance with the terms of that decision.

3.7 Amendments

3.7.1 Any signatory may at any time propose an amendment of this PA whereupon all signatories shall consult to consider such amendment pursuant to 36 CFR § 800.6(c)(7) and § 800.6(c)(8). This PA may be amended only upon written concurrence of all signatory parties.

3.7.2 The ICRMP may be amended at any time through consultation of the signatories without requiring amendment of the PA, unless the signatory parties through such consultation unanimously decide otherwise. Should any signatory propose amendment of the ICRMP, that signatory will promptly notify the other signatories in writing of the proposed amendment. Thereupon, all signatories will consult for no more than 45 days to consider the proposed amendment. Upon the written concurrence of the signatory parties, the ICRMP may be amended as proposed; and thereupon, EAFB will, in writing, notify the other signatories, Tribes, and any consulting or interested parties of the ICRMP amendment. Failure of the signatory parties to concur on an ICRMP amendment proposed hereunder shall be addressed in accordance with stipulation 3.5. EAFB shall have final authority to accept, reject, or accept with modifications, any ICRMP amendment proposed hereunder following any necessary compliance with stipulation 3.5. Any amendment of the ICRMP shall be documented in the next Annual Report and in the annual ICRMP updates.

3.8 Termination

3.8.1 Only a signatory party may terminate this PA. If this PA is not amended as provided for in stipulation 3.7, or if any signatory party proposes termination of this PA for other reasons, the

signatory party proposing termination shall notify all other signatories in writing, explain the reasons for proposing termination, and consult with the other signatories for no more than 30 days to seek alternatives to termination. Should such consultation result in an agreement on an alternative to termination, then, the signatories shall proceed in accordance with the terms of that agreement.

3.8.2 Should such consultation fail to result in an agreement on an alternative to termination, the signatory party proposing termination may terminate this PA by promptly notifying the other signatories in writing.

3.8.3 Should this PA be terminated, then EAFB shall consult in accordance with 36 CFR 800.14(b) to develop a new PA. Beginning with the date of termination, EAFB shall ensure that until and unless a new PA is executed for the undertakings covered by this PA, such undertakings shall be reviewed individually in accordance with 36 CFR §800.4–800.6.

3.9 Duration of the Programmatic Agreement

3.9.1 This PA shall remain in effect for a period of five (5) years following execution by all signatory parties and shall automatically terminate and have no further force or effect at the end of this 5-year period unless it is terminated prior to that time or unless it is superseded by an amended PA. Not later than 6 months prior to the termination date of this PA, EAFB shall initiate consultation with the other signatory parties to determine if this PA should be allowed to terminate automatically or whether it should be extended for an additional term, with or without amendments, as the signatory parties may determine. Unless the signatory parties unanimously agree through such consultation on an alternative to automatic termination of this PA, this PA shall automatically terminate in accordance with the timetable stipulated herein and have no further force or effect.

3.9.2 EAFB shall, in writing, notify all other signatories if the administration of all or part of the EAFB installation is disposed of by the United States. In the event of disposal of all of the EAFB installation, this PA and ICRMP shall terminate and have no other force or effect.

4.0 Anti-Deficiency Act

All requirements set forth in this PA requiring expenditure of EAFB funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. § 1341). No obligation undertaken by EAFB under the terms of this PA shall be interpreted to require a commitment to expend funds not appropriated for a particular purpose. If EAFB cannot perform any obligation set forth in this PA because of unavailability of funds, that obligation must be renegotiated among EAFB, SHPO, and the Council.

5.0 Effective Date

This PA shall take effect on the date that it has been executed by EAFB, SHPO, and the Council.

Execution of this PA by EAFB, SHPO, and the Council, and subsequent implementation of its terms, evidence that EAFB has afforded the Council a reasonable opportunity to comment on the undertaking and its effects on historic properties, that EAFB has taken into account the effects of the undertaking on historic properties, and that EAFB has satisfied its responsibilities under section 106 of the NHPA and applicable implementing regulations for all aspects of the undertaking.

SIGNATORY PARTIES:

United States Air Force, Vice Commander, Edwards AFB

By_____ Date _____

Title_____

Advisory Council on Historic Preservation

By_____ Date_____

Title_____

California State Historic Preservation Officer

By_____ Date_____

Title_____

Approval:

This Programmatic Agreement meets the requirements of the *Air Force Materiel Command Standardized Environmental Compliance and Conservation Programming Guidance–Section 3.15* and the National Historic Preservation Act. It is approved for implementation.

_____ Date: _____

MARTYN D. TAGG
Headquarters, AFMC
Cultural Resources Manager

_____ Date: _____

Jack I. Gregory, Jr., Colonel, USAF
Vice Commander, AFFTC