Department of the Air Force

Integrated Cultural Resources Management Plan

Wright-Patterson

Installation Supplement

ABOUT THIS PLAN

This installation-specific Environmental Management Plan (EMP) is based on the Department of the Air Force's (DAF's) standardized Integrated Cultural Resources Management Plan (ICRMP) template. This Plan is not an exhaustive inventory of all cultural resource requirements and practices. External resources, including Department of Defense Instructions (DoDI); Department of the Air Force Instructions (DAFIs); Department of the Air Force Manuals (DAFMANs); DAF Playbooks; and federal, state, local, and permit requirements are referenced, where applicable.

Certain sections of this ICRMP begin with standardized, DAF-wide "common text" language that addresses DAF and Department of Defense (DoD) policy and federal requirements. This common text language is restricted from editing to ensure that it remains standard throughout all plans. The designated Air Force Civil Engineer Center (AFCEC) Office of Primary Responsibility (OPR) maintains and updates common text language as appropriate.

Installation Supplement sections follow each of the DAF-wide common text sections. Installation Supplements sections contain installation-specific content to address state, local, and installation-specific requirements. Installation sections are unrestricted and are maintained and updated by AFCEC environmental Installation Support Sections and/or installation personnel. Updates should be made only when there are unique requirements at an installation. They should not be used to reiterate standard DAF requirements, such as those found in DAFIs, AFMANs, or DoDIs.

DOCUMENT CONTROL

Standardized ICRMP Template

In accordance with (IAW) the Air Force Civil Engineer Center (AFCEC) Environmental Directorate (CZ) Business Rule (BR) 08, *EMP Review, Update, and Maintenance*, the standard content in this ICRMP template is reviewed periodically, updated as appropriate, and approved by the Cultural Resources Subject Matter Expert (SME).

This version of the template is current as of 06/26/2020 and supersedes the 2020 version.

Installation ICRMP

Record of Review – The ICRMP is updated annually, or more frequently, as changes to cultural resource management and protection practices occur, including those driven by changes in applicable regulations. Updates will be made directly in the body of the document or to an appendix, as appropriate. The ICRMP will be revised and approved at least every five years, or when there is a significant change to the mission or installation, in accordance with (IAW) DoDI 4715.16, *Cultural Resources Management*, and AFMAN 32-7003, *Environmental Conservation*. The Base Civil Engineer (BCE) level, at a minimum, will sign the five year/significant updates. The installation Cultural Resources Manager (CRM) or an AFCEC Branch or Section Cultural Resources Media Manager (CRMM) will update the Plan every year. ICRMP updates should consider the effects of installation missions on cultural resources, the maintenance and upkeep of those resources, and compliance with National Historic Preservation Act (NHPA) Sections 106 and 110, and new survey and evaluation data. The CRM, the CRMM, or the Branch specialist will send the ICRMP, or a summary of updates since the last approval, to the Civil Engineer (CE) squadron commander or comparable officer/civilian for review IAW DoDI 4715.16 and AFMAN 32-7003. Annual reviews do not require BCE signature, but are captured in a memo to the BCE. Annual review procedures are outlined below:

ICRMP Annual Review and Coordination

Annual Requirements (at a minimum)

- Update data tables (minimum will include: resources, evaluations, locations, and references), including the Installation Profile
- Update survey locations tables and maps. Always include surveyed acreage and survey boundaries, note the dates of the surveys, and cite the survey report on the map or in map legends
- Add new Memoranda of Agreements (MOAs), Programmatic Agreements (PAs), Native American Graves Protection and Repatriation Act (NAGPRA) Comprehensive Agreements (CAs) and Plans of Action, and other signed agreements or understandings that drive work requirements

- Summarize MOAs, PAs, NAGPRA CAs/Plans of Action and other agreement or understanding documents in the Executive Summary and Work Plan
- Add outline of new planning data, to include mission changes, construction, destruction, development, etc., that will drive NHPA Section 106 and/or Environmental Impact Analysis Process (EIAP) reviews and consultations

Timing

- Update period is at least annual
- ICRMP may (and should) be updated continuously through the year

Validation

- The AFCEC CRMM or the installation CRM writes an Annual Update Memo to the installation briefly outlining annual changes and additions
- Annual Update Memo included in the ICRMP
- Update is complete when the Annual Update Memo is sent to the installation CRM for appropriate installation-level distribution. The annual review cycle is complete (and the ICRMP will show as "green" on all relevant eDASH dashboards) after the Memo is sent and all required metrics are updated in the Plans and Permits tool on eDASH

Digital File Storage and Archiving

- Current approved ICRMP PDF is kept on installation eDASH page
- Installation will follow their installation's approved file management plan (e.g. Air Force Records Management System [AFRIMS]) for archiving older ICRMPs IAW with current USAF policy

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Review Date	Review Participants	Notes/Remarks	Result in Plan Update? (Yes or No)
16 July 2021	Steven Byington Aaron Nickolotsky	Provided yearly edits to the plan	Yes
23 Aug 2022	Steven Byington Aaron Nickolotsky	Provided yearly edits to the plan	Yes

ICRMP APPROVAL (SIGNATURE PAGE)
Installation Supplement

Wright-Patterson ICRMP Signature Page 2021 - Signed.pdf

[SIGNATURE]

1 OVERVIEW AND SCOPE

This ICRMP was developed to provide for effective management and protection of cultural resources. It summarizes the history and prehistory of the installation and reviews past historical and archaeological survey efforts. It outlines and assigns responsibilities for the management of cultural resources, discusses related concerns, and provides standard operating procedures (SOPs) that will help to manage or preserve the cultural resources of the installation within the context of the mission. The ICRMP is intended for use by all personnel involved in installation planning. AFMAN 32-7003 acts as the main driver for the ICRMP. The Cultural Resources Management Playbook serves as supplemental guidance to this Plan.

1.1 Executive Summary

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This document is the ICRMP for Wright-Patterson Air Force Base (WPAFB), Ohio. The ICRMP is a broad plan of action that identifies the significant cultural resources within the installation boundaries and provides specific guidance for managing these resources and ensuring they are considered during the development and execution of projects on the base. The intent of the ICRMP is to provide WPAFB with a programmatic basis for compliance with federal historic preservation law and Air Force historic preservation policy directives and instructions. The plan provides a database of the base's historic resources and establishes procedures to assess impacts on them and to manage and preserve them. The plan also sets forth specific goals and objectives for the base's cultural resources program and presents program milestones for achieving them. It ensures that significant cultural resources are managed in a way that protects them while allowing the military mission of the installation to proceed

1.1.1 Summary of Major Points

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WPAFB has a number of significant cultural resources. Based on previous archaeological surveys including the latest survey completed in March 2021, in light of the many areas with a high level of disturbance, the entire installation (100%) is regarded as surveyed. For archaeological resources, both prehistoric and historical period archaeological sites are located on WPAFB. In 1990, an initial prehistoric archaeological survey of 930 acres of the installation was completed by the U.S. Army Construction Engineering Research Laboratories (USACERL). This survey was followed by a Great Lakes Archaeological Research Center (GLARC) archaeological survey in the fall of 1994 that covered 945.30 acres of the remaining 1,458 acres of undisturbed lands. WPAFB undertook a Phase I archaeological survey in 2001 that covered 309 acres of previously un-surveyed lands. The survey was spread out among 12 separate areas of the base. A 2001 survey covered 500 acres in four separate areas throughout WPAFB. These surveys identified 17 prehistoric archaeological sites and made recommendations for future work at some sites. Two of the 17 prehistoric sites, both mound sites, have been listed on the National Register of Historic Places (NRHP) since the 1970s. The remaining 15 potentially eligible prehistoric archaeological sites were evaluated in subsequent surveys performed after the 1993 survey. Of these 15 sites, one is eligible for the NRHP while the remaining 14 are not eligible. One of the 13 ineligible sites is located off-base.

An initial map and documentary study for historical period archaeological sites in 1990 identified 115 locations warranting monitoring or field survey, or both. Further study of these locations, from November 1995 through February 1996, indicated that only 35 of them were in potentially undisturbed, accessible locations. Several of these locations were found to be part of one archaeological site, and field surveys of these areas resulted in the identification of 8 historical archaeological sites that were potentially eligible for the NRHP and 9 sites that were ineligible. The eight potentially eligible sites were further tested, resulting in one eligible site, and 7 more ineligible sites, for a total of 15 ineligible historic sites. Sixteen other locations were tested and no site was found. In June of 2016 Cardno produced a report titled *Cultural Resources Recommendations for Further Research at Wright-Patterson AFB*, which was intended to document the required review, analysis, and reporting on previous archaeological survey and inventory efforts to help determine if there are other locations that require additional archaeological investigation to meet the requirements of Section 110 of the National Historic Preservation Act (NHPA). The report identified areas of additional research and provides recommendations that will be a foundation for continued efforts at WPAFB.

In addition, WPAFB is the home of Huffman Prairie Flying Field, site of the Wright brothers' 1904-1905 development of the world's first practical airplane. This site is a National Historic Landmark and is a unit of the Dayton Aviation Heritage National Historical Park.

The historic building baseline inventory is complete for all standing structures dating to 1974. The base contains more than 250 historic facilities, primarily dating to WWII or earlier. Most of these structures are part of the three historic districts, Fairfield Air Depot, Wright Field, and one historic housing district, the Brick Quarters, that are spread across the base. Wright Brothers Memorial was listed in the NRHP in 2016 and WPAFB listed the Brick Quarters historic district in the NRHP in 2018. Recommendations for preservation activities for these properties are included in this document. WPAFB has also completed an internal evaluation of the Cold War significance of its primary laboratory site facilities, which concluded that seven buildings have potential Cold War significance. Subsequent building surveys at WPAFB have concluded that 26 buildings possess Cold War significance, 21 of which are individually eligible for listing in the NRHP. The remaining five buildings might also be considered eligible for a NR listing as part of the recommended SAC 4043rd Strategic Wing Multiple Resources Group. The establishment of this group, however, has yet to gain concurrence from the Ohio State Historic Preservation Office (SHPO). In the meantime these resources are treated as eligible.

WPAFB is obligated to protect or otherwise treat archaeological sites and historic buildings that are listed in, eligible for, potentially eligible for, or not yet evaluated for the NRHP. Currently only five resources are listed in the NRHP: the two prehistoric mound sites, the Huffman Prairie Flying Field, Wright Brothers Memorial, and the Brick Quarters historic district. During previous years, WPAFB had consulted with the Ohio SHPO to reach a consensus determination of eligibility on the significance of the base's resources. This is a continuing effort.

There are no federally recognized Indian tribes directly associated with WPAFB, although five tribes have indicated an interest in Section 106 project notifications at WPAFB. A cooperative agreement between WPAFB and Ohio History Connection (OHC) provides for the curation of archaeological materials. Currently, the majority of artifacts and records are curated at the OHC with a smaller collection curated at WPAFB.

This ICRMP fulfills the legal requirements of the Air Force that are incurred under various public laws as of August 2021 and will form the basis for the negotiation of a Programmatic Agreement (PA) among the Air Force, the SHPO, and the Advisory Council on Historic Preservation (ACHP). The PA would streamline the coordination process currently in place between these three agencies and simplify project planning and implementation. A draft PA has been produced, however further development and finalization of the PA is on hold pending outcomes of the development, implementation, and reporting on a PA for disposition of the Brick Quarters Historic District. Although it is doubtful that SHPO will be willing to sign a base wide programmatic agreement.

Note: As of 2011, WPAFB is divided into two sections, Areas A and B. Area A now consists of what was historically referred to as the separate Area A and Area C. This consolidation does not affect the building and structure numbers or other historical references to Area C.

A summary of cultural resources are provided in Section 8.4 and Appendix A.

1.1.2 Cultural Resources Management Goals and Objectives

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The purpose of the cultural resources program at WPAFB is not to ensure the preservation of all historic properties, but rather to weigh and balance cultural resources along with other public interests and the military mission. This weighing and balancing, however, must be done in accordance with clear and well-defined processes, using broadly agreed-upon definitions and standards.

WPAFB must take into account all kinds of cultural resources, including historic buildings, historic structures, historic districts, cultural landscapes, historic objects, prehistoric and historical archaeological sites, and traditional cultural properties at all levels of significance, including the local level.

Cultural Resources Goals and Objectives

NOTE: Refer to the Cultural Resources Environmental Action Plan (EAP) when setting goals. Where possible, integrate installation objectives and supporting tasks into the EAP tool, rather than documenting in the ICRMP

Goal: Establish specific procedures for compliance with all federal laws and regulations governing the protection and preservation of cultural resources in a manner compatible with the military mission and ongoing and future tenant activities.

Objectives:

- Evaluate a potential streamlined programmatic agreement with SHPO/ACHP.

Goal: Locate and evaluate the significance of cultural resources located on the installation and to identify all those that meet the eligibility criteria for inclusion in the NRHP.

Objectives:

- Continue ongoing efforts to evaluate properties for eligibility as required for undertakings and as the properties reach 45 years of age.
- Continue to coordinate with real property on eligibility of properties in NexGen.

Goal: Avoid or minimize adverse effects upon all significant cultural resources located on WPAFB that meet the criteria for listing in the NRHP, including both historic buildings and archaeological sites. NRHP-eligible archaeological sites on the installation shall be protected from disturbance. The installation shall seek to retain historic properties in active use for their original purposes, where applicable, or for appropriate new purposes.

Objectives:

- Continue to work with CE planners as work requests are submitted and maintain early input on projects.
- Continue to advocate for preservation and reuse over demolition.
- Revise and update mound management plan in consultation with the five tribes.

Goal: Provide the highest level of resource protection to Huffman Prairie Flying Field, a National Historic Landmark and a unit of Dayton Aviation Heritage National Historical Park.

Objectives:

- Continue coordination and cooperation with the NPS to manage, maintain, and preserve the NHL, Huffman Prairie Flying Field.

Goal: Give priority to the evaluation of eligible sites and buildings located in areas that are heavily affected by ongoing and projected mission activities and to devise protective strategies for NRHP-quality sites located in these areas.

Objectives:

- Continue to coordinate with CE planning and the work request review process to ensure minimization of impacts to eligible properties.

Goal: The single greatest factor that can affect cultural resources at WPAFB is the planned alteration or demolition of vacated historic buildings; therefore, it is important to give top priority to the assessment and appropriate treatment of properties located in areas where construction activities are planned.

Objectives:

- Currently WPAFB has only one eligible property (Facility 20631) that is vacant and could possibly be demolished, however efforts are underway to develop a partnership arrangement for continued preservation and use for this property.

Goal: Continue the management and protection of Huffman Prairie Flying Field, as a National Historic Landmark and as a unit of the national park and ensure visitor safety while avoiding mission impacts.

Objectives:

- Maintain continuous monitoring of the site and its amenities to ensure preservation and safety.
- Advocate for funding to enhance site amenities and restoration of the view shed for public benefit.
- Work/partner with the NPS in restoration/rehabilitation/enhancement of the site including coordination of funding for various initiatives.

Goal: Establish detailed preservation and rehabilitation guidance for historic building types that are eligible for the NRHP.

Objectives:

- Review, update, and maintain current management plan.

Goal: Nominate eligible historic properties (including archaeological sites and facilities) and districts to the NRHP.

Objectives:

- Advocate for listing of the Arnold House in the NRHP, its inclusion in the National Park boundary and it rehabilitation and use.

Goal: Continue the evaluation of installation facilities as they reach 50 years of age and nominate to the NRHP those meeting the eligibility requirements.

Objectives:

- Evaluations are ongoing and advocacy for nominations is dependent on current AF policy.

Goal: Evaluate and nominate the NRHP-eligible cultural landscapes on the installation.

Objectives:

- Advocate for nominations dependent on current AF policy.

Goal: Ensure that cultural resources management is incorporated into general Civil Engineering master planning.

Objectives:

- This is an ongoing effort.

Goal: Ensure the ICRMP and the Integrated Natural Resources Management Plan (INRMP) are compatible and mutually reinforcing.

Objectives:

- Continue close coordination with the Natural Resources Manager and review of the INRMP.

Goal: Expand education outreach and public awareness.

Objectives:

- Continue to work with the many base partner organizations for outreach.
- Participate in the NPS annual events at the NHL.
- Continue to provide base historical tours to base and local populations.

1.1.3 Current and Priority CRM Requirements (5 Year Plan)
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Future directions for the program include:

- Continue to nominate historic buildings, districts, and archaeological sites to the NRHP dependent on Air Force policy
- Continue to evaluate buildings for their historic significance as they reach the 50-year threshold
- Work with the National Park Service (NPS) to continue to improve public awareness of, and access to, the Huffman Prairie Flying Field national park site and its associated interpretive center at Wright Memorial
- Advocate for expansion of the National Park boundary to include Wright Memorial and the Arnold House
- Advocate for funding to restore Wright Memorial and its landscape
- Develop a stronger public awareness of the base's many significant cultural resources and continue to advocate for preservation of heritage assets
- Utilized NPS assets in accordance with inter agency agreement (MOA) to support WPAFB cultural program
- Advocate for funding to improve Huffman Prairie Flying Field view shed and interpretive objects and media

1.2 General Information

1.2.1 Mission Statement
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WPAFB has a number of missions critical to national defense. The development and acquisition of all existing and new aircraft weapon systems for the Air Force is one of those missions, and this component is managed through the Air Force Life Cycle Management Center, located in Area B of the base.

WPAFB is the headquarters for the Air Force Materiel Command, which conducts research, development, testing, and evaluations, and provides the worldwide acquisition management services and logistics support that is needed to keep Air Force weapons systems ready for use. It is the home of the HQ Air Force Research Laboratory and five of the ten laboratories; the Air Force Institute of Technology, the heart of Air Force graduate education; WPAFB Medical Center, the second largest Air Force medical center; the National Air and Space Intelligence Center (NASIC); and the National Museum of the United States Air Force. Operating support for the base is provided by the 88th Air Base Wing.

1.2.2 Historical Perspective
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WPAFB's history as a military installation dates from World War I. Its aviation history, however, began in 1904 when the Wright brothers selected an 84-acre parcel of land to serve as their experimental flying field; this land is now known as Huffman Prairie Flying Field and is located just off the southeast end of today's active runway. The Wrights worked at this field through 1905 as they mastered the principles of controlled, powered flight and developed the world's first practical airplane. From 1910 to 1916 at this site, they operated a pilot training school and tested new aircraft in the field.

When the United States entered World War I in 1917, three military installations were established in the Dayton area. Two were located at what is now WPAFB: Wilbur Wright Field was established as a pilot training school and armorer's school along the site of WPAFB's present flight line, and immediately adjacent to it was the Fairfield Aviation General Supply Depot, a centralized depot that provided logistical support for the Signal Corps aviation schools in the Midwest. After World War I, these two air bases became a single installation known as Fairfield Air Depot. The highly skilled and specialized work force retained here after World War I helped establish the depot as a major center for the testing and maintenance of military aircraft. The third military installation established in 1917 was McCook Field, located some four miles south of the other two installations, and it served as the engineering division of the Army Air Service. By 1924, the facilities and runway space at McCook Field were becoming too small for the new, larger aircraft. In 1927, new aerodrome and state-of-the-art research facilities were constructed at Wright Field on land purchased and donated by the citizens of Dayton. Wright Field was an expanded home for the research activities at McCook Field and is now Area B of the base.

In 1931, the Fairfield Air Depot was renamed Patterson Field in honor of Lt. Frank Stuart Patterson, who died there in a crash in 1918 while flight testing an aircraft. In 1948, Wright and Patterson Fields merged to form WPAFB. The host organization for the new base was the 2750th Air Base Wing (ABW).

In 1992, Air Force Logistics Command, headquartered at WPAFB, and Air Force Systems Command were merged to form Air Force Materiel Command, headquartered at WPAFB. The 2750th ABW was re-designated the 645th ABW; currently it is the 88th ABW. The ABW provides the base operating support for the installation. Cultural resources are managed through the Environmental Branch, Installation Management Division of the 88th Civil Engineer Group, within the 88th ABW.

1.2.3 Legal Requirements

Cultural resource management must be performed IAW federal laws and regulations and DoD and USAF policies and requirements. Specific legal requirements are identified in applicable sections of this Plan, the Cultural Resources Management Playbook, the eDASH Cultural Resources Home Page, the eDASH Air Force Legal Operations Agency (AFLOA) Legal and Other Requirements List, and in referenced documents.

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Archaeology Guidelines, Ohio Historic Preservation Office, 1994.

2 INSTALLATION PROFILE

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Scope of Plan	Wright-Patterson AFB
OPR	Environmental Branch of the Installation Management Division within the 88th Civil Engineer Group has overall responsibility for implementing the Cultural Resources Management Program and is the lead organization for monitoring compliance with applicable federal, state and local regulations
Cultural Resources Manager	Name: Steven Byington Phone: (937) 257-1374 Email: steven.byington@us.af.mil
State Historic Preservation Office	Ohio History Connection Resource Protection & Review Ohio Historic Preservation Office 800 East 17th Avenue Columbus, OH 43211-2497
Consulting Native American Tribe(s)	WPAFB has no federally recognized Native American Tribes that recognize an affiliation with the base. The following

	Tribes have declared an interest in receiving Section 106 notification letters; Keweenaw Bay Indian Community, Sac and Fox of the Mississippi in Iowa, The Saginaw Chippewa Indian Tribe, Seneca Cayuga Tribe of Oklahoma, and Seneca Nation of Indians.
Routinely consulted parties	SHPO, ACHP, NPS
Office of the Secretary of Defense most current "Base Structure Report" notion of the "total acres" managed by the Installation including GSUs	8,145
Installation surveyable acres (i.e., undisturbed, accessible acres)	8,145
Total acres ever surveyed	8,145
Acres surveyed in FY22	0
Cultural Resources outreach program (e.g., website, welcome package, or brochures)?	Brochures, welcome package for BQ residents, videos
Total archaeology sites recorded	32
Archaeology sites recorded in FY22	0
Cumulative number of archaeology sites recorded through FY22	32
Number of eligible or listed sites	4
Number of non-eligible sites	27
Number of unevaluated sites	1
Number of archaeology sites evaluated in FY22	0
Total number real property facilities as reported in Appendix A	668
Number of eligible or listed real property facilities as reported in Appendix A	266 includes sites and structures
Number of non-eligible real property facilities as reported in Appendix A	402
Number of unevaluated real property facilities as reported in Appendix A	289
Number of real property facilities evaluated in FY22 as reported in Appendix A	0
Have Historic Status Codes been updated in the Accountable Property System of Record in FY22?	Yes
Number of archaeology sites mapped into GIS	32
Number of surveyed acres mapped into GIS	8,145

Are historic real property assets (buildings/structures) mapped into GIS?	Yes
Cumulative volume in cubic feet of archaeology collections	8
Cumulative volume in linear feet of associated records	15
Cumulative volume of archaeology collections complying with 36 CFR Part 79	8
Volume of archaeology collections acquired in FY22	0
Volume of associated recorded acquired in FY22	0
Archaeological collections repositories	Ohio History Connection

3 ENVIRONMENTAL MANAGEMENT SYSTEM

The USAF environmental program adheres to the Environmental Management System (EMS) framework and its "Plan, Do, Check, Act" cycle for ensuring mission success. Executive Order (EO) 13834, *Efficient Federal Operations*; DoDI 4715.17, *Environmental Management Systems*; AFI 32-7001, *Environmental Management*; and International Organization for Standardization (ISO) 14001 standard, *Environmental Management Systems – Requirements with guidance for use*, provide guidance on how environmental programs should be established, implemented, and maintained to operate under the EMS framework.

The Cultural Resources Management Program employs EMS-based processes to achieve compliance with all legal obligations and current policy drivers, effectively manage associated risks, and to instill a culture of continual improvement. The ICRMP serves as an "administrative operational control" that defines compliance-related activities and processes.

4 GENERAL ROLES AND RESPONSIBILITIES

AFMAN 32-7003 and the Cultural Resources Management Playbook contain detailed roles and responsibilities for cultural resources management. Installation-specific cultural resources management roles and responsibilities are described throughout this Plan and in referenced documents.

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Virtually every organization on WPAFB has the potential to affect significant cultural resources. However, all of the organizations described in the following sections have a recurring impact on the installation's historic preservation program.

Base Civil Engineering (88 CEG Civil Engineer Group)

Engineering Division

This organization is responsible for all planning and programming for projects relating to the installation's facilities and infrastructure. These tasks include maintenance and repair of existing facilities, planning for new construction, and planning for facility demolition. The programming, in-house design, and management of architect/engineer design contracts for all facility projects, are all accomplished through this organization. These functions have the potential to significantly affect historic facilities and, to a lesser extent, archaeological resources.

88th Civil Engineer Squadron

This organization includes all of the heavy equipment operators, utility systems personnel, and pavements and grounds crews, as well as the personnel for the maintenance shops and self-help. These groups keep up the roads and grounds, as well as the routine maintenance of the installation's infrastructure and facilities. This organization does much of the excavation work on base and may affect archaeological resources.

Installation Management Division

This division manages all environmental programs and procedures for the installation to ensure compliance with federal, state, and local laws and regulations. It is home to the cultural resources program and the CRM. It also includes the natural resources program, and other land-based programs that have the potential to affect archaeological resources or cultural landscapes. The real estate functions, and NEPA compliance are also accomplished through this organization.

Air Force Life Cycle Management Center – Systems Program Offices

The individual system program offices manage the various weapons systems programs for the Air Force, and their size fluctuates with the changing levels of their Congressional funding. This change in size can lead to frequent moves between larger or smaller facilities, which significantly affects long-range planning for historic buildings. Since 1991, the base has been undertaking a multi-phased construction project to create the Acquisition Management Complex, where the system program offices can be consolidated.

Air Force Research Laboratory (AFRL)

The Air Force Research Laboratory is the premier center for basic and applied research for aeronautical systems. The headquarters of AFRL and five of the research directorates are located at WPAFB. The need to be at the forefront of research and development has compelled AFRL to seek brand new, state-of-the-art research and development facilities. However, this endeavor has a direct and continuing impact on historic buildings—many of these historic buildings were the installation's original research and development facilities and cannot be converted easily to current state-of-the-art facilities.

Judge Advocate

The Judge Advocate's office performs a variety of duties related to the ICRMP at WPAFB. The office reviews all new legislation and regulations and informs the CRM about anything that will affect operations; provides legal interpretations and advice on existing statutes and regulations; advises Installation Management Division (CEI) in the event of an infraction, such as a notice of violation or warning letter; provides representation at both the administrative and judicial level; and helps CEI negotiate agreements and draft agreements, such as a Programmatic Agreement between WPAFB, SHPO, and ACHP. The Judge Advocate's office also serves as an advisor to the prosecutor in the event civilian or military personnel are prosecuted for disturbing a historic property.

Public Affairs Office

The Public Affairs Office is WPAFB's interface with the public on all topics relating to missions, events, and people involved in the installation. The office also functions as a conduit for information about WPAFB, serving military and civilian WPAFB staff and the general public.

Security Forces Squadron (SF)

The SF is responsible for monitoring historic properties on base to prevent vandalism, destruction, or disturbance. In the event a violation is discovered, the SF works with the Judge Advocate to assist in gathering information and evidence. The SF could affect cultural resources during training missions.

National Air and Space Intelligence Center (NASIC)

The National Air and Space Intelligence Center has its headquarters at WPAFB and is the primary DoD producer of foreign aerospace intelligence. NASIC develops its products by analyzing all available data on foreign aerospace forces and weapons systems and then determining performance characteristics, capabilities, vulnerabilities, and intentions. NASIC is primarily located in Buildings 10828, 10829, and 10856, all three of which are considered eligible for the NRHP.

Air Force Materiel Command (AFMC)

Headquarters Air Force Materiel Command is a tenant unit at WPAFB. The command conducts research, development, testing, and evaluation, and provides acquisition management services and logistics support necessary to keep Air Force weapon systems ready for war. AFMC is located in Building 10262, a historic facility.

CRM Management Responsibilities

The WPAFB cultural resources management program is managed by the Environmental Branch of the Installation Management Division within the 88th CEG Civil Engineer Group. The base will maintain a minimum of one permanent staff position within the Installation Management Division as the Cultural Resources Manager (CRM), meeting the qualification criteria outlined in 36 CFR 61. The CRM will be responsible for managing the cultural resources management program at WPAFB and for implementing the ICRMP. The CRM will review the ICRMP annually and update the ICRMP every five years to ensure the continued strict compliance of the base's cultural resources management program with all applicable federal laws and regulations and Air Force instructions, in accordance with Air Force Policy Directive 32-70. Between updates, the CRM will be responsible for ensuring that the policies of the installation remain consistent with both the letter and spirit of any new federal laws pertaining to historic preservation.

Funding for the cultural resources management program will be sought by the CRM through the Air Force Civil Engineer Center (AFCEC) which uses the Automated Civil Engineer System Database process for the Environmental Compliance (Conservation) Program and through the Legacy Resources Management Program for Legacy funds. The CRM will maintain regular contact with the AFCEC cultural resources management installation support team to ensure compliance with budget submission requirements and milestones. The CRM maintains liaison regarding the cultural resources management program with base organizations such as Civil Engineering, the various history offices on base, and tenant organizations with questions or issues pertaining to cultural resources.

Off-Base Coordination and Communication

The CRM maintains contact with the AFCEC cultural resources staff. The CRM conducts all coordination for the installation with the SHPO and the ACHP, which are the two principal regulatory agencies for historic resources. The CRM is the primary technical point of contact with the NPS regarding the management of Huffman Prairie Flying Field National Historic Landmark as a component of the Dayton Aviation Heritage National Historical Park and Wright Memorial as an associated site of the park. The CRM is also the installation liaison with the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Division and the NRHP office of the NPS. The CRM maintains contact and acts as liaison with various other local historical groups and stakeholders regarding historic preservation on base.

CRM Responsibilities

Protection of Archaeological Sites

Archaeological sites on the installation that are listed in the NRHP, or that are found to be eligible, will be protected from disturbance. If protection cannot be afforded because of mission-essential requirements, other treatments will be devised to mitigate any adverse impact. Sites that have not yet been fully evaluated will be protected from disturbance activities until they have been evaluated.

Other activities that have potential for adverse impact on archaeological resources through ground disturbance, changing erosional patterns or increased risk of vandalism will be coordinated with CEI. Such activities will include, but not necessarily be limited to, recreational use of areas, fencing, and landscaping.

Preservation of Historic Buildings

The preservation and maintenance of historic buildings is essential to upholding the significant heritage of WPAFB. The *Maintenance Plan for Historic Buildings (July 2016)* formalizes current procedures and establishes new procedures in order to enhance both the routine maintenance and preventive maintenance of WPAFB historic resources for present and future use. The plan ensures the inspection and monitoring of occupied and vacant historic facilities as well as the maintenance and preventative maintenance of facilities in accordance with the Secretary of the Interior's Standards for Rehabilitation. The plan will be annually reviewed and revised as necessary.

Protection of Huffman Prairie Flying Field

Huffman Prairie Flying Field is a National Historic Landmark and is afforded the greatest level of protection possible. Therefore, every attempt shall be made to avoid siting any project within the boundaries of the flying field or siting a project that impacts the viewshed adversely. Exceptions to this rule are (1) excavations necessary to continue the planned enhancements of the flying field, and (2) those projects that are required for the maintenance and repair of roads and utilities already sited within the flying field. When installation missions require the siting of a project within the boundaries of Huffman Prairie Flying Field, or when routine monitoring of the site shows evidence of vandalism, appropriate treatment plans will be given priority.

Reuse of Historic Properties

The installation shall seek to retain historic properties in active use for their original purposes, where applicable, or for new purposes under AFI 32-7065. For example, given a choice between rehabilitating a historic building to provide housing or demolishing the historic building and constructing a new one, rehabilitation shall be given priority. When historic buildings are slated for demolition, the justification and evaluation of alternatives shall be carefully documented by a Civil Engineering/Environmental Management team.

Prohibition of Unpermitted Collection of Artifacts

The installation Base Commander will vigorously enforce the federal laws and Air Force regulations prohibiting the unpermitted collection of artifacts. The Archaeological Resources Protection Act (ARPA) prohibits digging in or removal of artifacts from archaeological sites as a felony offense. WPAFB will continue to educate persons employed or living at WPAFB of the provisions of ARPA and of the felony penalties to which violators are subject.

Prohibition of Metal Detectors

The use of metal detectors on the installation will not be allowed, except for official conservation program uses, or unless otherwise permitted by the Base Commander. An exception to this is use of the equipment for work conducted under an ARPA permit.

Treatment of Existing Cemeteries

WPAFB currently has two known cemeteries within its boundaries: the Landis-Shank Cemetery located near the tenth hole of the Military Golf Course, and Cox Cemetery located in Area A. The cemeteries are currently monitored by WPAFB Civil Engineering (Real Estate and Grounds, with no set interval of monitoring). WPAFB does not provide any special maintenance of the headstones. Access to the Landis-Shank Cemetery is open to anyone on the base. The Landis-Shank Cemetery is known to not be in its original location. Due to the close proximity of the Cox Cemetery to active runways, access to it is on an as-needed basis. The CRM has completed a management plan for Cox Cemetery. According to 36 CFR 60, NRHP, Section 60.4, Criteria for evaluation, cemeteries are among those items that shall not ordinarily be considered eligible for the NRHP. WPAFB does not consider them eligible for the NRHP. An additional potential cemetery has been surveyed by the National Park Service with that resulted with no potential gravesites being identified.

The major roles/organizations involved in supporting the Cultural Resources Management Program include:

- **Wing/Installation Commander**
- **CRM**
- **Installation Tribal Liaison Officer (ITLO)**
- **AFCEC Branch and Section specialists**
- **AFCEC Cultural Resources Subject Matter Expert (SME)**
- **Legal/Judge Advocate (JA)**
- **Unit Environmental Coordinators (UECs); see AFI 32-7001 for role description**
- **State Historic Preservation Office (SHPO)**
- **Tribal Historic Preservation Officer (THPO)**
- **Tribal government leaders**
- **Interested public parties/stakeholders**

5 TRAINING

Cultural resources management training is crucial to ensure that installation personnel, contractors, and visitors are aware of their role in the program and the importance of their participation to its success. The eDASH Training Matrix, available from the eDASH Cultural Resources HomePage, identifies cultural resources-related training topics, target audiences, training frequency, etc. Appropriate personnel must complete required education, training, and certification necessary to perform their jobs. Training records are maintained IAW the Recordkeeping and Reporting section of this Plan.

Installation Supplement

Training Plan

Category	Training Course	Installation Plan
Archaeological	Archaeological Resources Protection	Annual workshop
Buildings	Historic Facility Management	Annual workshop
Buildings	Historic Structure Reports	Annual workshop
General Cultural Resources	Introduction to Cultural Resources Management – Laws and Regulations	0
General Cultural Resources	Advanced Section 106/Agreement Documents	0
Tribal	American Indian (or Alaskan) Cultural Communication Course	0
Tribal	American Indian Cultural Awareness Course	0
Tribal	Native American Graves Protection and Repatriation Act	0
NEPA/EIAP	Understanding and Preparing Preliminary EIAP Documents: USAF Specific	0
NEPA/EIAP	EIAP Course (Air Force Institute of Technology [AFIT])	0
NEPA/EIAP	Applying the National Environmental Policy Act (NEPA)/EIAP Process: USAF Specific	0

6 RECORDKEEPING AND REPORTING

Recordkeeping

The installation maintains required records in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposes of records in accordance with the AFRIMS Records Disposition Schedule (RDS). Numerous types of records must be maintained to support implementation of the Cultural Resources Management Program. Specific records are identified in applicable sections of this Plan, in the Cultural Resources Management Playbook, and in referenced documents.

Reporting

The installation CRM is responsible for responding to cultural resources-related data calls and reporting requirements. The CRM and supporting AFCEC Branch and Section specialists should refer to the Environmental Management System Playbook for guidance on execution of data gathering, quality control/quality assurance, and report development.

Installation Supplement

This section intentionally left blank. No data

7 STANDARD OPERATING PROCEDURES

This section contains SOPs for managing and protecting cultural resources. The CRM ensures that appropriate procedures are properly communicated and followed by necessary personnel.

7.1 Communication, Planning, and EIAP
Installation Supplement

Applicability Statement:

This SOP applies to all USAF installations.

Background/Overview:

The EIAP is the USAF procedure for performing environmental project review, in compliance with the requirements of the NEPA. The proponent of an action is responsible for initiating the EIAP early in the planning stages of a proposed action. The EIAP process is documented on Air Force (AF) Form 813, *Request for Environmental Impact Analysis*. The CRM must be familiar with NEPA and the EIAP process.

Procedure:

The CRM should:

- Work in close coordination with the EIAP manager during all NEPA reviews
- Assist the EIAP manager to determine whether existing and planned formal agreements under NHPA or other cultural resources authorities may be associated with the NEPA planning effort
- Confirm that NHPA Section 306108 review is required and identify other considerable cultural resources laws
- Identify and consult with SHPO or THPO/local governments/other parties
- Plan for public participation, as necessary

7.2 36 CFR Part 800 Process (Implementing NHPA Section 106)
Installation Supplement

Applicability Statement:

This SOP applies to all USAF installations

Background/Overview:

36 Code of Federal Regulation (CFR) Part 800 implements Section 306108 of the NHPA (formally Section 106). It is a federal review process designed to ensure that historic properties are considered during the planning and execution of federal undertakings. Activities, programs, or projects that have the potential to involve or affect historic properties and could trigger a 36 CFR Part 800 review include, but are not limited to:

- Rehabilitation, renovation, or addition to buildings, structures, and/or utilities
- Replacement or maintenance of infrastructure
- Demolition of buildings and structure
- Proposed bed-downs
- Environmental Restoration Program (ERP) investigations and clean-up
- Real property actions such as land transfers, out-leasing, etc.

The 36 CFR Part 800 review process should be initiated early in the planning stages of a project.

Procedure:

Project Proponents should:

- During initial project planning (e.g., completion of AF Form 813; AF Form 332, *Base Civil Engineer Work Request*; DD Form 1391, *Military Construction Project Data*, AF Information Management Tool (IMT) 103, *Base Civil Engineering Work Clearance Request* ["Dig Permit"]), provide adequate information necessary to determine whether historic properties are present and to assess impact of the proposed project on historic properties
- If a proposed project could involve preparation of an environmental assessment or environmental impact statement, contact the installation CRM as early as possible to ensure that any required public participation, analysis, and review can be planned to meet the requirements of both NEPA and NHPA Section 306108 in a timely and efficient manner
- Implement mitigation or management conditions stipulated by the CRM resulting from the Section 306108 consultation/coordination process

The CRM should:

- Determine whether the proposed action is an undertaking IAW 36 CFR Part 800. If the action is an undertaking, define the Area of Potential Effect (APE) and determine if any historic properties are present within the APE. Assess impact of proposed project on historic properties. Results of this review could include:
    - ***No Historic Properties Affected***: This determination is made when the project will have no foreseeable effects on historic properties. The installation should seek concurrence from the SHPO and other consulting parties (i.e., tribal stakeholders)
    - ***No Adverse Effect***: This determination is made when there might be an effect, but the effect will not be harmful to those characteristics that qualify the property for inclusion in the National Register of Historic Places (NRHP). The installation must seek concurrence from the SHPO and other consulting parties that no adverse effect is likely
    - ***Adverse Effect***: This determination is made when the effect of an undertaking could diminish the integrity of the characteristics that qualify the property for the NRHP. The installation will continue consultations with the SHPO and other interested parties whenever an "adverse effect" is likely, expected, or unavoidable.

Coordinate execution of 36 CFR Part 800 process to support desired project schedules. Refer to the Cultural Resources Management Playbook for detailed descriptions of the Section 306108 review process

Historic Property Demolition

If, after consideration of other alternatives, it is determined by Civil Engineering project planners that a historic building is to be demolished, the CRM will make a determination of adverse effect and:

- Begin consultation with the SHPO;
- Inform the ACHP of the beginning of consultation, and notify relevant outside parties and the public;
- Develop a Memorandum of Agreement with consulting parties for mitigation of the affected resource; and
- Submit the mitigation agreement to the ACHP.
- Manage or monitor mitigation actions as required by the executed MOA/PA.

7.3 Regular Review of NHPA MOAs or PAs

Installation Supplement

- At minimum, annually review all MOA/PAs in place to ensure that compliance measures are on schedule and resources are in place to meet stipulations. Agreement reviews can be accomplished at the same time as ICRMP annual reviews.
- Per MOA/PA stipulations, consult with agreement concurring parties to ensure MOA/PA stipulations are being met and determine if adverse impacts to historic properties, including privatized housing or other privatized assets, have occurred.
- Work with the installation Housing and Real Properties managers to review all agreements for privatized housing and determine if properties have been evaluated for NRHP eligibility.
- Work with AFCEC CRMM, proponent, and agreement signatories, as appropriate, to correct any deficiencies identified in meeting stipulations of executed MOAs or PAs.

7.4 Discoveries of Archaeological Resources and NAGPRA Cultural Items
Installation Supplement

Applicability Statement:

This SOP applies to all USAF installations that contain or potentially contain archaeological resources and/or NAGPRA cultural items. Installations that have agreements with tribes concerning the treatment of these two types of resources in discovery situations should include those procedures, in addition to the SOP described below. Cite the title and date of the agreement(s) when summarizing the procedures and ensure a copy of the agreement(s) is appended to the ICRMP.

Background/Overview:

Accidental or unanticipated discoveries of archaeological resources may occur on USAF controlled lands. When discoveries occur, the proper actions must be taken to minimize damage to these resources and to ensure that legal requirements are met. The relevant statute is Archaeological Resources Protection Act (ARPA) and the regulation is 32 CFR Part 229, *Protection of Archaeological Resources*.

There is also an important legal subset of archaeological resources, which includes NAGPRA cultural items (i.e., Native American human remains, associated or unassociated burial artifacts, and objects of cultural patrimony). The relevant regulation is 43 CFR Part 10, *Native American Graves Protection and Repatriation Regulations*. See the Cultural Resources Management Playbook for detailed guidance on the requirements of NAGPRA and this regulation.

It is a federal offense, under the provisions of ARPA and 32 CFR Part 229, to excavate, remove, damage, or otherwise deface any archaeological resources located on federal lands, without authorization. The provisions of ARPA apply to archaeological material greater than 100 years in age, regardless of the NRHP status of the site where they are found. Any person wishing to excavate or remove archaeological resources from an USAF installation must apply for an ARPA permit. USAF-contracted work is exempted from the permitting provision of ARPA. In the event of a permit request, the installation CRM should notify the AFCEC Section CRS. Detailed information to assist in facilitating ARPA permitting is available in the Cultural Resources Management Playbook.

Procedure:

USAF or contractor personnel that make or become aware of a potential archaeological discovery on installation lands should:

- Immediately notify the CRM of the nature and location of the discovery
- Immediately cease potentially damaging activities and take efforts to ensure protection of resources until arrival of the CRM or designee

The CRM should:

- Notify Security Forces of the discovery
- Ensure that all archaeological items are left in place and that no further disturbance is permitted to occur
- Sufficiently identify the location of the discovery to provide efficient relocation, yet take efforts to minimize the types of signs that could attract personnel and place the discovery in danger
- Direct installation personnel and contractors to take efforts to resume mission-associated activities in a reasonable and timely manner

Security Forces should:

- Notify the Wing Commander regarding the location, nature, and circumstances of the discovery
- Provide security/protection for the site to prevent unauthorized disturbance, looting, or vandalism

If human remains are discovered or if there is sufficient reason to suspect that human remains are present (such as the observation of an oval-shaped rock or earthen mound), the CRM should:

- Determine (with the aid of a coroner or forensic anthropologist) if the remains are human, and whether or not they are associated with an archaeological deposit
- If the remains are not human, and not associated with an archaeological deposit, work may continue

- If the remains are human, Security Forces should notify local law enforcement agency and a coroner, who will determine if the remains are recent, or ancient (with the aid of a forensic anthropologist). If the human remains are modern, the matter may become the responsibility of law enforcement officials who will determine when project activities may resume
- Invite consultation with Native American tribes, as appropriate. If a qualified professional finds the human remains to be Native American, the provisions of NAGPRA apply. Follow the procedures outlined in 43 CFR Part 10 or in existing installation NAGPRA agreements with tribes

7.5 Accidents and Emergencies Affecting Historic Properties
Installation Supplement

Applicability Statement:

This SOP applies to all USAF installations.

Background/Overview:

Federal laws and regulations provide exceptions to the standard Section 306108, 306101-107, and 306109-114 reviews that may be used in times of emergency. Immediate rescue and salvage operations conducted to preserve life or property are exempt from the provisions of Section 306108, 306101-107, and 306109-114 and the procedures outlined in 36 CFR § 800.12. Per 36 CFR Part 78, the Secretary of the Air Force may waive all or part of the USAF's Section 306108 responsibility on a specific undertaking if the Secretary determines the existence of an imminent major natural disaster or a threat to national security. Such waivers will not exceed the period of the emergency, and generally do not extend to reconstruction or other activities beyond those immediately required to prevent endangerment of human life or property.

Procedure:

The following actions may be performed when responding to an accident or emergency situation (e.g., hazardous material spill, aircraft or vehicular accidents, fires/explosions, natural disasters) where cultural resources may be affected:

USAF Personnel, Construction Crews, Utility Workers, Contractors, and Rescue Workers should:

- Notify the CRM as soon as possible upon realizing potential for impact to cultural resources associated with an emergency situation
- Take reasonable steps to avoid or minimize disturbance of significant cultural resources during emergency operations, as appropriate to concerns for human life or property

The CRM should:

- Identify cultural resources that might be affected by emergency response and provide guidance and advice to emergency operations workers on methods to avoid or minimize negative effects to cultural resources
- As soon as possible, notify the Installation Commander and AFCEC of the emergency or disaster, including descriptions of historic properties potentially affected
- As soon as practicable and within 14 days of the conclusion of the emergency situation, notify the SHPO/THPO of any adverse effects to historic properties that resulted from the emergency and emergency response
- Consult with the SHPO/THPO about steps necessary to reduce or mitigate adverse effects to historic properties when additional actions are necessary to stabilize, repair, or demolish historic properties damaged in the emergency or emergency response (e.g., demolition of historic properties that cannot be repaired, or have become unsafe)
- If a waiver is requested, provide information to installation personnel regarding the status of the waiver request (granted or denied) and direction regarding follow-on notification of parties
    - If a waiver is granted, provide information regarding the scope and limitations of the waiver to appropriate installation personnel and initiate required notifications to SHPO
        - If a waiver is not granted, provide direction to installation personnel regarding resumption of work and implement the Section 306108 consultation process

7.6 Suspected Vandalism
Installation Supplement

Applicability Statement:

This SOP applies to all USAF installations.

Background/Overview:

The installation has established procedures to deter vandalism and to investigate suspected acts of vandalism when a cultural resource protected under NHPA, ARPA, or NAGPRA is damaged as a result of unauthorized activity.

Procedure:

In the event of a discovery of damaged archaeological site or other historic property, the following actions should be performed:

Discoverer of potential looting or vandalism should:

- Immediately notify the CRM (at 937-257-1374.) and Security Forces (at 937-904-2923)
- Take all necessary precautions to protect the resource from further damage, loss, or destruction
- Wait for further instructions from the CRM or other authority

Security Forces should:

- Notify the Installation Commander immediately regarding the location, nature, and circumstances of the looting or vandalism
- Provide security/protection to prevent further unauthorized disturbance, looting, or vandalism

The CRM should:

- Inspect the site to assess damage
- Notify the Installation Commander of damage within 48 hours of discovery. Include the following information in the damage report: Circumstances of site damage, assessment of the nature and extent of damage, recommendations for treatment procedures (coordinate with SHPO and tribal authorities, as appropriate), and suggestions for future protection measures
- Notify Native American organizations and individuals if **traditional cultural resources** or sacred sites were damaged

Legal Department personnel should:

- Assess whether or not accused violators can be prosecuted
- Determine whether a civil penalty or other prosecution can be applied

7.8 Management and Coordination
Installation Supplement

Applicability Statement:

This SOP applies to all USAF installations.

Background/Overview:

The following procedure outlines and describes cultural resources-related communication, review, and coordination processes and workflows.

Procedure:

Internal Reviews

Internal review procedures will be initiated as early in project planning as possible, so that personnel are allowed sufficient time to implement appropriate cultural resource activities, as required. Specific documents and processes that typically require internal review include:

- Completion of AF Form 332 or submittal of a work request in the TriRiga system for proposed work to Civil Engineering to determine whether the proposed work will affect any natural or cultural resources
- Completion of AF IMT 103 generally for work involving digging to CE to determine whether the proposed work will affect any natural or cultural resources
- NEPA project review including the EIAP and completion of AF Form 813

Notification and Consultation

- Consultation can occur at any time with Native American tribal groups or other stakeholders at the discretion of the CRM and the ITLO
- Notification and consultation with tribal groups must occur immediately if any human remains are encountered

Stakeholder Reviews

- Installation stakeholders can include, but are not limited to: the SHPO, the THPO, local surrounding communities, and the National Park Service (NPS)
- The Public Affairs Office manages the official website for the installation and uploads cleared, sanctioned information for public access
- The installation CRM and the ITLO are responsible for contacting NPS, SHPO, and any tribal groups for any reviews of cultural resource documents

Agreement Documents

- Agreement documents, such as MOAs, PAs, CAs, Plans of Action, etc. will be drafted and coordinated by the CRM and approved by the Installation Commander
- Agreement documents are referenced in the Appendix section of this ICRMP

GIS Management

- The installation maintains maps showing locations of certain significant cultural resources. These maps are maintained: *ADD LOCATION*.
- According to 32 CFR Part 229, information divulging the location and character of archaeological sites should be limited to parties involved in management and/or planning and shall not be divulged to the general public. Such confidentiality prevents damage to sites. In the spirit of ARPA, all maps of archaeological sites have restricted access. Access will be granted by the CRM IAW user need and 32 CFR Part 229

7.9 Installation SOPs
Installation Supplement

Review construction projects, work orders, and other planning documents early in the planning phase. By reviewing the project early, the CRM may be able to suggest ways to avoid or minimize potential adverse effects.

CRM should be included in base master planning activities, including reviews of updates to the base-wide master plan, area master plans, and detailed area plans.

Inform architects and engineers of cultural resources. Provide a listing of all historic facilities and archaeological sites on an annual basis or as inventories change, and conduct training on cultural resources and Section 106 compliance measures.

Request annual updates of FYDP, demolition, and MILCON proposals from Civil Engineer Programs Division (CEP).

8 CULTURAL RESOURCES INVENTORY

8.1 Physical Setting
Installation Supplement

Location and Size

WPAFB is an 8,145-acre installation located in southwest Ohio. The majority of the base lies in Greene County, with a small portion in Montgomery County. The base handles approximately 700 office, laboratory, and support buildings, as well as approximately 1,000 military family housing units, most of which have been privatized and are managed by a developer. WPAFB employs approximately 27,000 people and is the largest employer in the state of Ohio at a single location. In addition, 23,000 secondary jobs have been created in private industry in an 18-county region surrounding WPAFB. By many measures, WPAFB is the largest and most organizationally complex base in the U.S. Air Force. As of 2011, the base is divided into two sections called Area A and Area B (see Location Map of WPAFB and USGS Map of WPAFB).

Climate

The climate of WPAFB is categorized as continental. A continental climate has moderately warm, humid summers and mildly cold, cloudy winters. On average, the temperature drops below zero only four days per year and rises above 90 degrees Fahrenheit only a few days during the summer (ERSD 2002). The average yearly rainfall in this region is 42 inches. The spring months are normally the rainiest, while January and February are the driest months of the year (GCWR 2002).

Physiography, Geomorphology, Geology, and Hydrology

WPAFB is situated on the Till Plain in the glaciated region of Ohio (ODNR 1995). Glacially deposited soils, mainly from the Illinoian glaciations, account for nearly all of the soil in the Till Plain region (ODNR 1995). Underlying this soil is sedimentary bedrock composed of limestone and a small amount of shale. This bedrock is "of early Paleozoic age (Ordovician through Devonian), approximately 500 to 350 million years old" (Forsyth 1979:199).

The Miamian soil series is dominant at WPAFB. Miamian soils are found over much of the county and can occur on nearly level to quite steep slopes. They are all silt loams, which can become quite compact because of the large amounts of glacial till present in the soil. These loams are well drained and possess moderate to slow permeability; erosion can be rapid when soil is disturbed (USDA-SCS 1973:73).

The general topography of the area is gently sloping to nearly level, with a few small rolling hills. Generally, the elevation near the installation ranges from 1,000 feet above median sea level (AMSL) to 700 feet AMSL in the river valleys. The highest point in Greene County is 1,135 feet AMSL, while the lowest point is 730 feet AMSL.

Flora

Historical human activities have greatly altered the landscape throughout most of the state of Ohio. Such activities are evident around WPAFB, where nearly all land has been cleared and converted into farmland and pastureland. A few small tree stands remain, generally near the streambeds and around land that is too poor to farm. Within these woodland tracts, vegetation consists mostly of brushy secondary growth (Forsyth 1979). In 1997, 231,000 acres of farmland existed within the county limits, with the most acreage devoted to soybeans, followed by corn, then wheat (GCFP 2002).

Historical accounts from surveyors and settlers describe a much different environment than that observed today. One account states, "nearly the entire surface of the county was covered by massive forest trees and a tangle of shrubs which grew beneath" (Durant 1883:261). On the Till Plain, beech and sugar maple forests were the most dominant vegetation type (Gordon 1969). The specific types of vegetation would have varied throughout the area, depending on soil type and the amount of water present. Typically, forests would have contained a variety of elm, oak, maple, hickory, and a combination of less common softwoods. In addition to these tree species, a variety of herbaceous plants also grew in the forest, including several species of ferns, Solomon's Seal, May Apples, and a handful of other shade plants. Patches of wet grasses and sedges grew between these forests where the soil was too wet to support tree growth (Forsyth 1979:207). This combination of forest and grassland likely dominated the immediate vicinity of WPAFB.

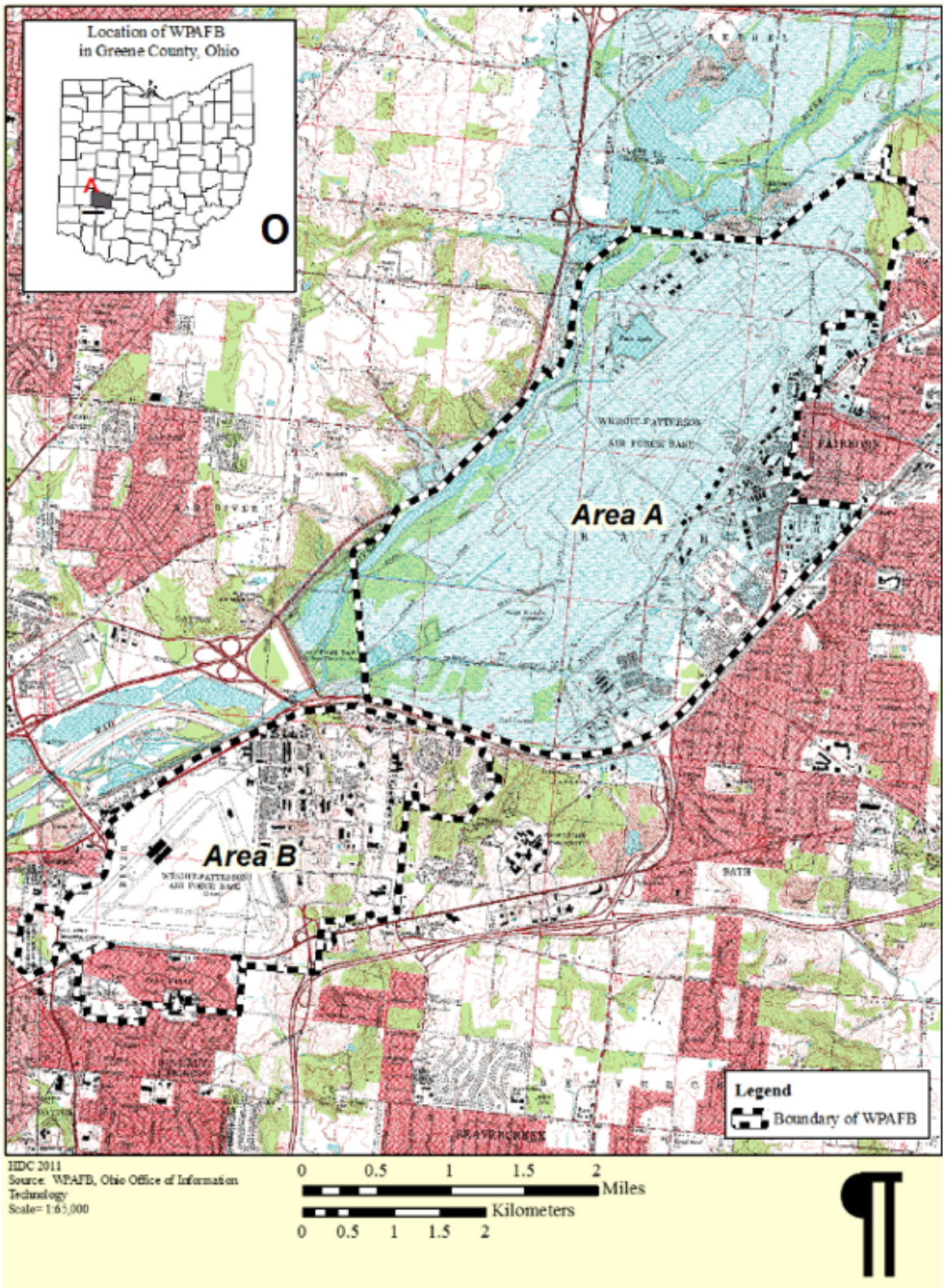
Fauna

Like the present flora, the fauna currently found in the project area is different than the wildlife that inhabited the region during prehistoric times. Today some of the most dominant animals consist of small mammals, such as rabbits, squirrels, opossums, ground hogs, and raccoons. The only large vertebrates present are whitetail deer and a few coyote. A variety of bird species are present, including dove, hawk, crow, owl, and game bird (Cochran 1955:13-41; Forsyth 1979:211). Fish (small-mouth bass, sunfish, suckers, and catfish), amphibians (common salamander species, numerous frog and toad species), and reptiles (Eastern box turtles, snapping turtles, painted turtles, and several common snake species) also live in and around the water resources near the installation (Cochran 1955:109-115). The Mad River and its tributaries support a large population of the rare and endangered tongue-tied minnow (Forsyth 1979:209).

The animals mentioned above existed in Greene and Montgomery Counties when large-scale settlement of the area began in the early 1800s, but these wildlife populations were much larger during the prehistoric and proto-historic periods. Species exterminated from the region include bobcat, puma, elk, bear, and wolf (Forsyth 1979:213). Many of these extirpated species were killed for food or fur, or because of the damage they caused to livestock and crops. Others were forced out with increasing deforestation and human occupation. Historical accounts describe the abundance of large game and fur-bearing mammals in the area, including river otters and beavers.

Location Map of WPAFB

USGS Map of WPAFB



8.2 Prehistory and History
Installation Supplement

Prehistoric Archaeological Framework

Human occupation of the region is believed to have been associated with the retreat of the Wisconsin glacial stages, approximately 12,000 BC. The WPAFB area, near the Mad River, has high relief next to the river and broad till plains that may have provided a favorable location for prehistoric peoples. Regional prehistory is divided into the Paleoindian, Archaic, and Woodland periods. The following prehistoric periods are represented in the vicinity of WPAFB:

- Paleoindian (ca. 12,000 to 8,000 BC)
- Early Archaic (ca. 8,000 to 6,000 BC)
- Middle Archaic (ca. 6,000 to 4,000 BC)
- Late Archaic (ca. 4,000 to 1,000 BC)
- Terminal Archaic (ca. 1,000 to 750 BC)
- Early Woodland (ca. 750 BC to AD 1)
- Middle Woodland (ca. AD 1 to 400)
- Late Woodland (ca. AD 400 to 1,000)
- Late Prehistoric (ca. AD 1,000 to 1,650)

The Paleoindian tradition appears to have been established in Ohio by 12,000 BC. These occupations are generally recognized by the appearance of fluted and lanceolate-shaped projectile point forms. Nomadic hunters and gatherers appear to be the earliest inhabitants of this part of Ohio. Their primary subsistence was heavily slanted toward exploitation of Pleistocene mammals such as mammoth, mastodon, bison, and caribou. Although no Paleoindian sites have been reported on WPAFB lands, projectile points have been recovered from Clark, Greene, and Montgomery counties.

The Archaic period saw populations adopt more localized, regional lifeways in response to changing climates and environmental conditions. The Archaic tradition is commonly defined on three basic criteria: the absence of pottery containers, burials in natural knolls or flat cemeteries, and a subsistence economy based on the hunting of a wide variety of small animals and the collection of wild plant foods. Typically, sites of the Archaic period represent occupations by relatively mobile groups of hunter-gatherers who exploited a wide variety of locally available resources. The Archaic period can be subdivided into Early, Middle, Late, and Terminal.

Twenty-nine Early Archaic period sites have been recorded in surveys within the U.S. Geological Survey (USGS) Fairborn Quadrangle topographic map, in which WPAFB is located. However, no Archaic sites have been reported on WPAFB-owned property. In the vicinity of the base, numerous Late Archaic projectile points (i.e., dart tips) have been recovered, primarily on uplands and terraces within the Mad River and Miami River valleys.

The Woodland period in the Eastern United States is characterized by the appearance of a ceramic technology; elaborate earthwork construction, including burial mounds; and growth and diversification of preexistent exchange networks. This period also marks a shift in subsistence economies from primarily hunting and gathering to a horticultural base by the Middle Woodland period. Archaeological resources associated with the Woodland period include the mounds and earthworks of the Adena and Hopewell peoples. The Early Woodland Adena earthworks are usually circular enclosures, and the burial mounds are predominately conical (ICI/SAIC, 1995).

The Late Prehistoric period in Ohio is characterized by increased population sizes, an intensive maize agricultural subsistence strategy, and the development of large fortified communities inhabited by groups known as Fort Ancient. Late Prehistoric sites in the Ohio River Valley are dominated by peoples of the Fort Ancient tradition. Although no Fort Ancient sites have been reported on WPAFB, a site has been reported in Montgomery County.

Historical Archaeological Framework

A variety of cultures inhabited the early central Ohio Valley. The Mosopolea, the Honnisonkeronon, and the Shawnee are the first groups ascribed to the area. Although French accounts of the Mosopolea are vague, they document displacement by the Iroquois in 1673 (Henderson et al. 1986).

Although there is little documentation concerning the earliest contact between Europeans and Native Americans, some early explorers reported trade relations with indigenous populations. By the 1600s, competition in the fur trade became an important impetus for European trade alliances with various Native American groups; this competition often caused friction between Native American groups vying for European trade items. Between 1649 and 1656, the Iroquois Confederacy became very active in the fur trade, and their hunting territory expanded throughout the latter part of the seventeenth century (Henderson et al. 1986). The attacks on Algonkian tribes in the northeast and in the Ohio River Valley, combined with devastating pandemics, contributed to rapid depopulation, which ultimately resulted in the disappearance of smaller tribes, such as the Mosopolea, by the late 1600s.

In the mid-1700s, Shawnee and displaced Algonkian tribes occupied the central Ohio River Valley (Henderson et al. 1986). Between 1760 and 1795, the French influence that had previously dominated the area lessened, enabling English and other Europeans to enter into the area. The influx of Europeans resulted in conflicts between the Euro-Americans and mixed tribal groups, all of which culminated in the battle of Fallen Timbers in 1794. By the 1800s, most of the tribes inhabiting the area had been forced west of the Mississippi River.

Efforts in the late eighteenth century to organize areas for Euro-American settlement and economic development led to the Northwest Ordinance of 1785. That ordinance created a consistent surveyed grid of 36-mile-square townships, oriented to lines of longitude and latitude, and organized in ranks by township and range lines. The WPAFB area was incorporated into this system in 1802 and 1803, and in 1803 Ohio became the first state to enter the Union under the precepts of the ordinance. Greene and Montgomery Counties were also established in 1803 by dividing Hamilton County.

In 1787, the Symmes Company, a group of investors from New Jersey, bought one million acres between the Greater and Little Miami Rivers from the federal government. American settlers from this company founded Cincinnati in 1788 and Dayton in 1796. Dayton remained a small city from its inception through 1810, after which it developed into a commercial, industrial, and transportation center. Growth of the city was heightened upon completion of the Miami-Erie Canal, which ran through Dayton. By 1798, the first recorded settlers had appeared in the outlying areas surrounding Dayton and established a farmstead. In 1807, Bath Township and Mad River Township were created as the centers of legal authority, and by 1816, the city of Fairfield had been established as the legal and commercial center of Bath Township.

In 1850, the construction of the Mad River and Lake Erie Railroads were completed, connecting Sandusky to Dayton and Cincinnati. The railroad crossed the broad, level floodplains of the Mad River. The city of Osborn was established in 1851 as a result of the railroads. Osborn witnessed rapid growth and competed with Fairfield as the center of legal and commercial business in Bath Township. The competition was short-lived, as Osborn was condemned as part of the Huffman Retarding Dam Project of 1915-1920. Important industries that were located in Osborn during its zenith included several mills and distilleries. The dominant form of land use in the area during the nineteenth century was farming (ICI/SAIC 1995). An 1855 map of Bath Township (the central and eastern parts of WPAFB) labels this area as "prairie." However, rural-oriented businesses and industries faded away in the twentieth century, giving way to more industrial and research-oriented ones. The purchase of the land by the U.S. Army signaled the end of the historical pattern development of farmsteads, towns, and low-density industry that had prevailed in the area from 1798 to 1919.

Early Aviation History

WPAFB's history as a military installation dates from World War I. Its aviation history, however, began in 1904-1905, when the Wright brothers used the 84-acre Huffman Prairie Flying Field as a location for perfecting their aircraft, the Wright Flyer. Meanwhile, the United States Army was taking steps to organize a small new division to head this new area of technology. Established in 1907, the Aeronautical Division (Signal Corps) was initially begun with the purpose of overseeing all aeronautical activities, which at the time included both air machines and balloons. In 1908, the Wrights were awarded the first military aircraft contract from the U.S. Army Signal Corps (Dyson et al. 1993). In 1911, the Signal Corps received its first Congressional appropriation for aeronautics. Three years later, as the potential military use of this technology was further recognized, the unit was re-designated the Aviation Section (Signal Corps) and was charged with a new mission that explicitly included the training and use of aircraft in a military context.

Meanwhile, the Wrights returned to Huffman Prairie from 1910 to 1916, forming the Wright Company to produce aircraft and to train pilots. Wilbur Wright died in 1912, but Orville Wright continued the tradition of aviation research and pilot training at the Wright Company School of Aviation (Walker and Wickman 1986). The Wright brothers constructed a permanent hangar near a local electric interurban rail stop known as Simms Station, creating the first aircraft research and development center (USACERL 1993c; ICI/SAIC 1995). Between 1914 and 1920, Huffman Prairie was largely cleared of settlement so that the Miami Conservancy District could construct Huffman Dam and the Huffman Retarding Basin, which were built to prevent a recurrence of the disastrous flood that devastated Dayton in 1913 (USACERL 1993c). These works contributed to the sustainability of the vicinity for expanded aviation activity.

Overview of Development of WPAFB

The following overview is taken from ASC historian Dr. Henry Narducci's "Historical Development of Wright-Patterson Air Force Base," 1998, History Office, WPAFB. Sections related to the Cold War and the Strategic Air Command (SAC) 4043rd Strategic Wing (Heavy) are taken from Hardlines Design Company's "Updated Building Evaluations For Historic Significance, 1957-1961, At Wright-Patterson Air Force Base" dated January 9, 2009.

World War I

When the United States entered the war in 1917, three military installations were established in the Dayton area. The U.S. Army Signal Corps established McCook Field north of Dayton as the location of its Airplane Engineering Department to pursue applied aeronautical engineering (Dyson et al. 1993). The Army also established Wilbur Wright Field, named in honor of Wilbur Wright, near Huffman Prairie for training pilots and mechanics. The Fairfield Aviation General Supply Depot was created west of the nearby town of Fairfield to supply Wilbur Wright Field and other flying installations in the Midwest.

During World War I, Wilbur Wright Field and the Fairfield Aviation General Supply Depot were located on what is today Area A at WPAFB. Wilbur Wright Field was located on a 2,075-acre tract of land adjacent to the Mad River that was leased to the Army by the Miami Conservancy District. The Signal Corps Aviation School (SCAS) established at the field began operations June 28, 1917, as a training school for pilots. Twenty-four hangars were constructed on the flight line for the school. The cadets flew the Curtis Aeroplane Company's JN-4D and Standard Aircraft Company's SJ-11 single-engine biplane trainers with two open cockpits mounted in tandem. Due to adverse weather conditions, all flying activity moved to southern fields in the winter months. By war's end, the SCAS had trained over 100 pilots (Reserve Military Aviators). Some of the hangars were used as a temporary school for mechanics and a permanent school for armorers. The Aviation Mechanic's School, one of five at northern flying installations, provided critical training for about 2,000 enlisted men.

Two short-term projects were established. One effort that included airplane, airplane motor, and motor transport training was conducted in 12 of the hangars on Wilbur Wright Field. For the second program, local civilian airplane and engine test factories and garages opened their facilities to groups of 25 soldier-students for on-the-job-training. Instructors for the temporary school came from both inside and outside the Army. Private companies were canvassed for experienced foremen who could add their technical competence and supervisory skills to the ranks of the Signal Corps instructors. The training school for Aviation Mechanics contributed significantly to the overall Air Service war effort by graduating 1,181 men including 85 instructors by the end of 1918.

The Aviation Armorers' School was organized under the authority of the Signal Corps Air Division Gunnery Section. Operations began on March 18, 1918, with two facets of the armament school assigned to Wilbur Wright Field. The first was testing all the Aviation Section machine guns to ensure that they were properly adjusted and in good firing condition. The second was an armorer training school to produce new armament officers and their enlisted assistants. The course of instruction was fixed at six weeks and covered a complete study of machine guns, their sights and synchronization mechanisms, and the storage and mounting of bombs. The Aviation Armorers' School contributed to the overall effort of the Air Service by graduating 485 enlisted men.

Fairfield Aviation General Supply Depot (FAGSD) was constructed beginning in the fall of 1917 on forty acres of land purchased by the Army from the Miami Conservancy District immediately adjacent to Wilbur Wright Field. FAGSD's mission was to provide logistics support to Wilbur Wright Field and the three other Signal Corps Aviation Schools located in the Midwest.

Built in 1917, Building 30001, the depot's first and principal building, is a U-shaped brick and concrete structure. The building's unique feature is a covered 600-foot double-rail spur located between the wings. The spur connected the depot with the Big Four Railroad Company line in the nearby town of Fairfield. The building housed the depot headquarters until 1933 and contained thousands of square feet of storage space for freight and supplies. Six other buildings were also constructed as part of the depot, including three steel storage hangars and the depot garage. FAGSD's primary function was to provide supply support for wartime training operations. In particular, it received, stored, and issued equipment and supplies to the Signal Corps Aviation Schools, mechanics' schools, and armorers' schools in the region. The depot was a direct responsibility of the Signal Corps Equipment Division in Washington DC and operated independently of the various Army airfields it supported.

McCook Field was the third World War I military installation established at Dayton, located just north of downtown between Keowee Street and the Great Miami River. Opened on December 4, 1917, the 225-acre complex was named for the Fighting McCooks of the Civil War, who once owned part of the land. McCook Field was an engineering and research facility, intended as a temporary home for the Airplane Engineering Division of the U.S. Army Signal Corps until Langley Field in Virginia could be completed.

Engineers and technicians working at McCook researched, developed, manufactured, tested, and evaluated military aircraft and all associated components and equipment. Specialized equipment was used to test liquid and air-cooled engines, supercharged controllable-pitch aircraft, flight instrumentation, parachutes, flight clothing, advanced materials, aerial photographic equipment, and a large number of experimental aircraft. Researchers occasionally tested airplanes designed or manufactured by Allied nations.

Cooperation between the two geographically separated flying fields began on April 20, 1918, when Wilbur Wright Field agreed to let McCook Field use hangar and shop space, as well as a force of enlisted mechanics, to assemble and maintain eight airplanes, especially their engines. These airplanes included the British DeHavilland DH-4 reconnaissance plane and Bristol pursuit aircraft. For its part, McCook Field agreed to furnish two Liberty engines and two instructors to assist in training Wilbur Wright Field's mechanics. The cooperative arrangement between the fields continued for nearly ten years, until McCook Field was finally closed in 1927. Wilbur Wright Field's expansive and relatively isolated open flying field had become ideal for testing the Air Service's experimental aircraft and the new, larger, and more powerful models developed during the 1920s.

Between the Wars

The main activity of the Air Service immediately following the war was, as with all military branches, demobilization. Numbers in both personnel and usable planes decreased rapidly. Now that the Army had entered a new era in terms of introducing aircraft into the combat arena, reorganization was necessary to support the increased significance of combat. The Signal Corps was a long-established unit assigned with the limited concern of overseeing the flag signal communication system. The idea that the Signal Corps should remain in command of this new arm of defense was decidedly incongruous with its original mission. Therefore, as part of the National Defense Act of 1920, Congress approved the separation of aviation from the Signal Corps and transferred control to the Air Service, which now enjoyed a new status as its own combat arm.

This step was the first one in a quarter-century process of separation that would eventually lead to the full separation of the Army Air Forces (as it would later be designated) from the Army. Efforts in this direction continued throughout the 1920s. Although they did not result in separation at that time, they did influence President Coolidge to appoint a board that investigated air power claims and was authorized to recommend increases in aviation activities.

Initially, the Air Services focused on observation and pursuit aviation. Leading the way in aeronautical development efforts was McCook Field, where the Engineering Division had established an engineering school. It was during the 1920s that formal training in aviation-related activities took shape. Some of the other major schools and training facilities within the Air Service at that time included flight training schools at Kelly and Brooks Field (San Antonio), balloon training at Scott Field (Illinois), technical schools at Chanute Field (Illinois), and the Tactical School located at Langley Field (Virginia).

In an act of Congress in 1926, the Air Service was re-designated the Army Air Corps, and one year later, the new Wright Field became the home of the recently established Materiel Division. This new unit, originally based in Dayton, was charged with overseeing the logistics function of the Corps.

During the 1930s, one interesting new task of the Army Air Corps became that of carrying air mail, a job that had previously been contracted out to commercial airline holding companies. However, this responsibility proved to be an embarrassing and tragic debacle when an unjustified number of crashes occurred. The disaster highlighted the Air Corps' lack of working planes and training capabilities, as well as some areas of questionable leadership. Such factors prompted the Army to detach Air Corps tactical units from the command of the regional corps areas and to place them under control of Air Force General Headquarters.

Peacetime at Wright Field

Following World War I, the training school at Wilbur Wright Field was discontinued, and Fairfield Air Depot and Wilbur Wright Field were ultimately merged and re-designated the Wilbur Wright Air Service Depot. The depot underwent several name changes over the years, but has been commonly known as Fairfield Air Depot (FAD). The school's main flightline, with its 24 hangars, continued to serve as the aerodrome for the depot, and is today known as the East Ramp flightline of WPAFB, although none of the original hangars are still standing.

Fairfield Air Depot (FAD)

FAD was an active depot from 1918 until 1946, when it was deactivated. In the early 1920s, it was a primary storage and disposal depot for World War I surplus property. Throughout the 1920s and 1930s, it was a major supply depot and one of the Air Service's and Air Corps' principal aircraft and engine overhaul facilities. The depot also served as a sponsor for the 1924 International Air Races and managed all of the logistics support for the first "Round the World Flight" in 1924.

Fairfield Air Depot became the home of the Property, Maintenance, and Cost Compilation Section, the earliest antecedent of today's Air Force Materiel Command. The only remaining military buildings from the World War I period standing in Area A are Building 30001, which was headquarters for FAD, and Building 30002, which incorporates what were originally Buildings 2, 3, and 4 at the depot. Two nineteenth-century farmhouses that were assimilated into the reservation remain. Building 30008 has been restored and is now the Sexual Assault Response Coordinator (SARC) office. Building 30088, known as the Foulois House, serves as senior officer housing.

McCook Field

As it turned out, McCook Field was not as temporary as originally intended. It remained in operation from 1917 to 1927. It was apparent, however, that the field's 255 acres would not be able to indefinitely accommodate the larger, more sophisticated aircraft that emerged from the post-World War I period. In tight quarters, McCook Field's motto and warning to its pilots became "This Field Is Small—Use It All!" When the Air Corps announced its intentions to move McCook Field out of Dayton, local businessmen and citizens protested, for the field not only provided a stable and expanding economic base for the community but was also a great source of pride to the city, which considered itself the birthplace of aviation. Under the leadership of the Patterson family, founders of the National Cash Register Company and prominent citizens formed the Dayton Air Service Committee Inc., which mounted a massive public campaign to raise funds and purchase land. In the end, they were able to persuade the Air Corps to keep the McCook Field mission in the Dayton area.

Wright Field

In 1924, the Dayton Air Service Committee purchased 4,520.47 acres of land northeast of Dayton, including the sites of Wilbur Wright Field (which had previously been leased by the government) and Fairfield Air Depot, and presented the deeds to the land to President Coolidge. The entire acreage was eventually designated Wright Field, in honor of both Wright brothers. The official dedication ceremonies for Wright Field were held October 12, 1927. Orville Wright was in attendance and raised the first flag over the facility. The dedication of the new installation in honor of both Orville and Wilbur Wright established three precedents: It marked the first time that an Army installation was named for two civilians who had never been in military service; the first time an installation was named for a living individual; and in all likelihood, it was the first time that an individual so honored by the military service was present at his own memorialization.

As noted earlier, Wright Field was headquarters for the Materiel Division, the main Branch of the Army Air Corps responsible for developing advanced aircraft, equipment, and accessories. The division also procured and provided maintenance for all of these systems and was charged with managing the extensive Air Corps depot system. Engineering and research flourished at Wright Field, benefiting from the new buildings that were designed and built specifically to house their respective missions. The breadth of the Materiel Divisions mission is evident from the names of its various sections and laboratories: Engineering Section (including Aircraft, Power Plant, Engineering Procurement, Equipment Materials, Armament, and Shops Branches); the Administration Section, responsible for flight test, engineering data and records, and Public Works projects; the Field Service Section, responsible for administering the Air Corps depot program; and the Industrial War Plans Section, concerned with sources of supply, standardization of equipment, and other complex logistics issues associated with planning for national defense.

Between 1925 and 1927, new and modern facilities were built on the portion of Wright Field west of Huffman Dam to house all functions being relocated from old McCook Field. Particular attention was paid to the architecture of these building for both function and style. Buildings 20011 and 20016, which have a common foundation, were the first to be built, serving as the Administration Building and the primary laboratory building.

Building 20011, the long rectangular two-story concrete Administration Building, provided office space and an auditorium. Blue and gold circular porcelain shields that inscribed "Materiel Division, U.S. Army Air Corps" around a likeness of Rodin's "The Thinker" were mounted above the two entrances, giving the building permanent status at the new field. Building 20016, a large rectangular concrete laboratory building, was designed with a glass-sided saw-tooth roof for better lighting. The building is similar in structure to automotive factory buildings designed by architect Albert Kahn of Detroit. The Materials Branch Testing Lab was the first tenant to move into Building 20016, but elements of many other branches of the Materiel Division Engineering Section were located there. Many important experiments were conducted in Building 20016, such as work on the first successful pressurized cabin aircraft, the XC-35. The Explorer II sealed gondola, manufactured in Building 20016, was used by Captain Albert Stevens to make his record-breaking balloon flight to 72,000 feet in November 1935. Tests were made in the building's high-altitude chamber on the full pressure suits designed by Wiley Post. Construction for all of the Wright Field buildings was completed under the jurisdiction of the Office of the Quartermaster General, U.S. Army. Primary contractors for Building 20011 and 20016 were the J. I. Geiger Company and the Danis-Hunt Company, both of Dayton, and The E. H. Latham Company of Columbus.

Constructed next were the main aircraft assembly hangar and control tower, known collectively as Building 20031, and also Building 20056, the main warehouse. These structures set the architectural style of all Wright Field buildings constructed until World War II. Greek Classical architectural influences are indicated by the low-pitched roofs, brick, and multi-pane steel sashed window facades on concrete foundations with mostly decorative brick corner columns. The most outstanding example of this "Wright Field style" is Building 20031, the Aircraft Assembly Building. Contractors for the assembly building were Green and Sawyer of Lima and E. H. Latham. This large high-bay building has four corner towers, one of which was topped by a glass-enclosed control tower.

Virtually every type of aircraft in the Air Corps inventory visited this hangar at one time or another during the 1930s. Housing different functions through the years, it is now the Flight Dynamics Laboratory Landing Gear Development and Test Facility. Among other systems, landing gear for the Space Shuttle is tested there. The eight structural bays of Building 20056, later expanded to eleven, served as a Station Supply and Issue Warehouse through World War II. Contractors for the warehouse building were the M. E. White Company of Chicago and the H. R. Blagg Company of Dayton. Starting in 1953, portions of the building were converted to office space.

Buildings such as the Aircraft Radio Lab, the Foundry, Garage, and shops were constructed as temporary structures until funds became available to make them permanent. Concrete floors were poured and permanent steel frameworks were erected, but the roofs and walls were temporarily covered with corrugated sheet metal, and windows were salvaged from McCook Field buildings. By 1929, funds were on hand to make these structures more permanent by adding brick walls and steel sash windows.

By 1931, the new Wright Field complex was completed, and all functions had been transferred from McCook Field. The primary facilities in the "Wright Field Style" were: Building 20017, the Radio Lab; Building 20018, the Power Plant Lab; Building 20019, the Five-Foot Wind Tunnel; Building 20021, the Armament Lab and Gun Range; Building 20032, the Wood, Machine, and Sheet Metal Shops; Building 20038, the Automotive Repair Shop; Building 20039, Maintenance Building #1; Buildings 20046 and 20051, the Foundry and Garage; the Propeller Test Complex; Building 20071, the Power Plant Laboratory Engine Test Torque Stands; the major utility systems, and Buildings 20081 and 20082, the main Wright Field gatehouses.

Building 20017 housed all activities associated with the development of aircraft radio and radar systems and other sophisticated flight instrumentation equipment. Building 20018, the Power Plant Laboratory of the Materiel Division, originally housed the Power Plant dynamometers, instruments used to measure engine force or power. Today, wings and additions have greatly expanded and architecturally changed the complex. The Five-Foot Wind Tunnel was one of the last items to be moved from McCook Field, with Building 20019 constructed especially for the tunnel. In this 90-foot long tunnel, wooden airplane models with wingspans up to 20 inches could be tested at airspeeds up to 270 mph. The facility was used by the Air Force Research Laboratory until the 1990s. The building was virtually unchanged until 2011 when the Five-Foot Wind Tunnel was removed and stored in order to make room for a new state of the art laboratory.

The shops in Building 20032 supported the aircraft assembly and modification activities that took place in Building 20031, the main Assembly Hangar. The original shops were expanded over the years and ultimately housed major labs such as Chemical and Physical Analysis, Synthesis and Polymerization Research of New Base Materials, Metals Processing and Evaluation, Lubricants Evaluation, and others. Building 20032 had been converted to mostly offices by 1982 and underwent a total interior and exterior rehabilitation in the mid-1990s.

The Automotive Repair Shop, Building 20038, has additions, but remains a Vehicle Service and Repair Center. Maintenance Building #1 (Building 20039) was destroyed by fire in 1948, but was rebuilt in the same Wright Field style. Joined with old Building 20035, the entire structure is designated Building 20039.

Building 20051, originally a garage building was converted to a laboratory facility by the Materials Lab during World War II. The foundry functioned as an experimental and raw material processing lab/foundry. In 1992, the foundry was moved to a new location. The old garage and infill portion were demolished, and the remaining foundry, now known as Building 20051, has been converted to a utility hub for the Building 20011, 20011A, and 20016 complex.

Building 20056, the Station Supply and Issue Warehouse, was originally eight structural bays. The space between it and the oil storage building was in-filled with two more identical bays, bringing the total to 11, in 1940. Portions of the building have been converted to offices over the years. The original Propeller Test Complex (Building 20020A) has been covered by an architecturally aesthetic modern Acoustical Enclosure. This functionally engineered complex may be the only facility of its kind in the world. The craneway and whirl rigs are intact and are still used to conduct modern propeller and turboprop testing.

Building 20071, the Torque Stands, was used to perform engine endurance tests for up to 150 hours at a time. The work of the Power Plant Lab (Building 20018) was to increase the power output of engines, develop new types of engines, improve fuels, and extend supercharging to higher powers and altitudes. Still in use as an engine test facility, including jet engines, the expanded portions of the building are shared by the Materials Lab Non-Destructive Evaluation Branch.

Many of the main utility buildings, such as heating and water pump stations, are still in use, while others are no longer part of the active system or have been converted to other uses. Building 20066, Wright Field's heating plant, has been demolished. Building 20086, the main Water Pump Station, is now an Electrical Switch House, although the pumps are still intact. Buildings 20081 and 20082, the Main Gate Guard House and Passenger Station for the electric interurban trolley, are still in good condition, although relocated as part of the new Gate 1-B entrance.

Significant buildings added to the Wright Field Complex during the 1930s included Building 20012, the first permanent home of the Army Aeronautical Museum (now the National Museum of the United States Air Force, located elsewhere in Area B), and Building 20023, known as Static Test Laboratory No. 1, which was similar in size and style to the Aircraft Assembly Building (Building 20031).

Patterson Field

The name "Wright Field" became synonymous with developments in the field of aeronautical engineering, a reputation that WPAFB retains to the present day. Although the name Wright Field had been applied to the entire installation, there were some who preferred the name "Patterson Field" in recognition of the Patterson family's leadership in the campaign to save McCook Field and in honor of Lt. Frank Stuart Patterson, a Patterson nephew who was killed in the crash of his DH-4 aircraft at Wilbur Wright Field during World War I. In 1931, the War Department decided that honor was indeed due the Pattersons' contributions. As a result, the portion of Wright Field east of Huffman Dam encompassing Fairfield Air Depot, the site of Wilbur Wright Field, and the Wrights' flying field at Huffman Prairie, was designated Patterson Field effective July 1, 1931. The two fields remained separate until after World War II, although their missions continued to be closely intertwined.

Patterson Field, with its logistics/supply mission, was assigned to the Air Corps Materiel Division until 1941, when the supply function was broken off from the Materiel Division during World War II. Building 30011, built in 1933, served as Patterson Field Headquarters until 1948. Building 30013, built in 1930, was a major aircraft and engine overhaul facility. This building and several others, such as Building 30168 and 30169 (now demolished), embodied the typical Wright Field architectural style, reflecting Patterson Field's parent command, the Materiel Division at Wright Field. Temporary laborers employed under Depression-era programs provided valuable service renovating older buildings on the installation. Some buildings, hastily erected during World War I, were essentially shells of corrugated metal with cinder floors. Building 30002 was renovated by a commercial contractor and Building 30003 by the Civilian Work Administration, but Building 30004 was renovated by men housed at what was known as the Transient Camp at the south end of Patterson Field. These three buildings were subsequently combined to form what is today Building 30002.

When the Materiel Division moved from McCook Field to Wright Field, it became desirable for the Army to construct permanent on-base housing for the officer corps. In 1934-1935, a complex of 67 brick Tudor-style officers' quarters, 50 garages, an officers' open mess, and a commander's residence for the Chief of the Materiel Division were constructed on Patterson Field. At the time of their completion, the new homes housed all officers stationed at both Wright and Patterson Fields. Transient camp workers performed most of the landscaping around the brick officers' quarters and may have also constructed the Turtle Pond in the middle of the horseshoe-shaped complex.

During the 1920s and 1930s, Fairfield Air Depot (FAD) provided support for various activities. The 1926, 1929, 1931 and 1933 Air Corps maneuvers and other field exercises were staged at Patterson Field. In May 1931, Assistant Chief of the Air Corps Brigadier General Benjamin Foulois flew his staff to Patterson Field from Washington to personally organize the First Provisional Air Division. This temporary organization mustered 24 of the Air Corps' 25 tactical squadrons in the continental U.S., plus National Guard units from 19 states (a total of 672 aircraft). The historic and highly successful two-week maneuvers tested all facets of the Air Corps' capabilities and gave commanders a precise picture of their ability to organize, supply, and control a large mobile air force.

In 1934, the Air Corps assumed responsibility for air transport of the U.S. Mail. FAD activities were sharply accelerated to provide the required aircraft modifications and related supplies for this project. The Engineering Department, housed in Building 30013, performed modifications in just eleven days on a sufficient number of aircraft to support operations. The airplane structures were reworked to accommodate baggage compartments, and blind flying instrumentation was installed to allow the Air Corps to meet air mail schedules day and night. Depot supervisors worked with the commercial businesses to ensure that supplies, including oil and gasoline, would be available. Liaison men were sent to various Air Corps and commercial installations throughout the country to facilitate operations. The experiment turned out to be a failure due to numerous fatalities, accidents, and other insurmountable difficulties, but valuable lessons were learned. When these problems were brought to the public's attention, the argument for increased Air Corps appropriations was strengthened.

FAD personnel provided support and preparation services for the ten Martin YB-10 twin-engine bombers used in the long distance Alaskan flight in 1934. Initiated by FAD Commander Lieutenant Colonel Henry H. "Hap" Arnold and Major Ralph Royce, the planes made a brief stop at Patterson Field on the return trip.

A number of developments in military meteorology can be traced to activities at Patterson Field in the 1930s. When the War Department designed a new policy to improve the meteorological service furnished to the Air Corps, it assigned a Signal Corps officer to Patterson Field. The Signal Corps Weather Office was housed in Building 30001, and a radio transmitter was installed in 1936 to broadcast local weather conditions at hourly intervals for pilots and operations officers. In 1937, the Air Corps Weather School was established on Patterson Field, and six months later, it graduated 20 students. The school operated until June 1940 when it was transferred to the Air Corps Technical School at Chanute Field. The first military Autogiro School in the United States was opened on Patterson Field in 1938 to train officers as pilots and enlisted men as maintenance crews. The school started with three new YG-1B direct control autogiros and soon increased to seven, the largest assembly of such machines gathered in one location.

Another significant achievement realized at Patterson Field was the world's first entirely automatic landing on August 23, 1937. A Fokker C-14B was used in the test and successfully landed without any assistance from the human pilot or from the ground.

World War II

In the summer and autumn of 1938, when Czechoslovakia was partitioned and the Germans responded fiercely utilizing their infamous Luftwaffe in tactical support of ground forces, the Americans recognized the potential danger of their lagging aeronautical production. With the possibility of war imminent and Roosevelt's prediction that "air power would win it," the army placed a subsequent order for 6,000 new planes. Although the United States would not enter the war until 1941, the threat of German expansionism had sparked the U.S. military to establish new domestic and overseas bases and air organizations as early as 1939.

In spite of contradictory recommendations by Congress, General Headquarters (GHQ) Air Force concentrated much of its aviation research during the war on the development of a heavy bomber. Although they did manage to produce a relatively good bomber (the B-17 Flying Fortress, which would be integral in successful strategic bombing of German centers of industry, communication, and population), a comparable tactical fighter was also needed. Because of this lack, United States air power remained inferior to Germany's well into the war—a limitation that hurt the ongoing struggle for an independent Air Force.

Nonetheless the efforts were increasingly successful. The Air Corps underwent several command and designation changes in the early years of the war before the establishment of the Army Air Forces (AAF) in June 1941. The AAF, which then controlled both the Air Corps and the Air Force Combat Command (formerly GHQAF), was one of the three arms of the U.S. Army. This new autonomy was significantly greater than that of any of the other theater commanders.

At the same time, the Air Corps' Materiel Division at Wright Field took control of a newly established Air Corps Maintenance Command. Its purpose was to oversee supply and maintenance, a job that sometimes hindered research and development. Therefore, it was soon made its own command (Air Service) so that the Materiel Division could concentrate its efforts on research. Both units underwent numerous changes of command throughout the war before they were eventually placed under the newly created AAF Materiel and Service Command in July 1944.

Wartime Construction

Both Wright and Patterson Fields experienced dramatic expansion during World War II, in terms of real estate as well as structures. Employment at the fields jumped from approximately 3,700 in December 1939 to nearly 50,000 in mid-1945. Wright Field grew from a modest installation with approximately 30 buildings to a 2,064-acre facility with some 300 buildings and the Air Corps' first modern paved runways. The Hilltop area, acquired from private landowners in 1943-1944 and subsequently developed, provided housing and services for the thousands of troops assigned to Wright Field, while the original part of the field was saturated with office and laboratory buildings and test facilities.

The outbreak of World War II provided a crucial test for the Materiel Division, which since 1926 had managed its experimental, engineering, and procurement functions with the limited appropriations characteristic of peacetime. Changes were required within the Division to accommodate the massive wartime Air Corps expansion program. The functions of the division were ultimately broken into two separate commands, the Materiel Command and the Air Service Command. The Materiel Command, headquartered at Wright Field, was responsible for the procurement of airplanes and equipment in production quantities and for sustaining an accelerated program of testing and development. The Air Service Command, located at Patterson Field, took responsibility for all logistics functions, including maintenance and supply.

Construction at both fields kept pace with the growth of the two commands. At Wright Field, three large administrative structures, Buildings 20014 and 20015 and later Building 20125, were built to accommodate HQ Materiel Command. The Engineering Division of Materiel Command was housed in Building 20126. At Patterson Field, Air Service Command was headquartered in newly constructed Building 10262, which was surrounded by an entire complex of warehouses, barracks, and support buildings that became known as Area A of the base.

Wright Field received what is believed to be the first permanent paved runway system in the Air Corps, constructed in 1941-1942. Patterson Field had a similar system constructed in 1942-1943. The Wright Field complex included an inclined accelerated runway, the only one of its kind in the country, designed to test the concept of accelerated aircraft takeoffs and landings.

Paralleling the Wright Field flight line was a series of hangars and supporting shop facilities, specialized to house Wright Field's flight test, aircraft modification, and maintenance missions. These structures included: Hangar 20001, the Flight Test Hangar; Hangar 2009, the Experimental Installation Hangar; Hangar 20006, the Signal Corps Special Hangar; Building 20005, the Engineering Shops supporting the aircraft test and modification function in Hangars 20001 and 20009; Building 20007, the Engineering Shop Office; and Building 20008, the Wright Field Operations and Flight Test Building and Control Tower. The five-bay Hangar 20004 complex, built in 1944, was the Modification Hangar and Flight Research Laboratory. The Wright Field Armament Laboratory was housed in Hangar 20022 with a 500-yard gun range behind. An Armament Range House, Building 20022B, was constructed in 1943, a year later.

Laboratory buildings went up, such as Building 20029, the Aero-Medical Research Laboratory, with its support buildings that included the Centrifuge, Building 20055; Oxygen Branch, Building 20196; Oxygen Equipment Test Facility, Building 200197; and Machine and Wood Shop, Building 20198. The Power Plant Laboratory expanded its facilities with offices in Building 20018A and 20018D; a new Dynamometer Lab, Building 20018B, with an addition a year later, Building 20018E; and the Power Plant Cold Rooms in Building 20018F. Building 20070 was built in 1943 to house the Fuel and Oil Branch of the Power Plant Laboratory. A large four-story building (Building 20071B) was constructed next to the Torque Stands to accommodate the expanded testing mission of the Power Plant Laboratory. The Propeller Laboratory, Building 20020, was built in 1942 with the Acoustical Enclosure for the propeller Whirl Rigs designated Building 20020A.

A Jet Propulsion Laboratory, Building 20079; Press Room, Building 20079A; and three stands, Building 20079B, 20079C, and 20079D were constructed for research. The Jet Thrust Propulsion Laboratory was housed in Building 20047. Building 20045 was built as an Equipment Laboratory test facility. The Aircraft Laboratory was housed in Buildings 20050 and 20028, both built in 1942. Building 20052, designated as Aircraft Laboratory Building B, was built in 1944. The new Static Test Building 20065 was also built in 1944 for the Aircraft Laboratory. A Fireproof Instrument Test Laboratory, Building 20042, was constructed in 1943.

The Wright Field 20-Foot Wind Tunnel, the largest wind tunnel in the world at the time, was built in 1941 along with Power Building No. 1, Building 20024A; and Test Chamber No. 1, Building 20024B. These structures formed the start of the Trisonic Wind Tunnel Complex. Building 20024C, the Shop and Office Building, came next in 1942. Building 20025B was constructed in 1944 as Test Chamber No. 2 for the 10-Foot Wind Tunnel along with Building 20025C, Power Building No. 2. Building 20026, the Supersonic Test Laboratory was constructed close by in 1944. The Vertical Wind Tunnel, Building 20027, constructed in 1942, was designed especially for parachute testing. One postwar research and development building at Wright Field considered historically significant is Building 20821, the Radar Test Laboratory, nicknamed "The Cathedral." It was built in 1948 entirely of wood to suppress radar deflections.

To keep up with the power and water needs of the field, numerous utility buildings were constructed, including maintenance buildings and shops. Warehouse Building 20057 was constructed in the old Wright Field style, as were Buildings 20061 and 20061A, which supplemented the Torque stands. Building 20063 was built as ordnance storage for the Armament Laboratory. Other buildings were constructed to support the huge expansion program, including the Hilltop Gym, Building 20684; the Quartermaster Commissary, Building 20741; a Dispensary, Building 20040; and the Wright Field Library, Building 20430. Hundreds of temporary barracks and troop support buildings were built on the hilltop area. Out of this large wartime mobilization complex, the only surviving buildings in the hilltop area are: a nineteenth-century school house converted to officers' quarters that now serves as office space; Hilltop Gym, a pre-war recreation building known as the Hunter's Lodge; and a handful of other minor structures.

The Fairfield Air Depot complex at Patterson Field also saw dramatic physical expansion as the Army Air Forces struggled to maintain, repair, overhaul, and supply unheard of numbers of warplanes and their equipment. Many warehouses and large engine overhaul facilities were built. In some cases, existing buildings were expanded or joined together to form larger complexes, such as Building 30013 (the Engine Overhaul facilities combined together) and Building 30002 (warehouses composed of Buildings 30002, 30003, 30004, and connecting annexes). Several specialized buildings supported the depot's work, including Building 30256, the Vertical Engine Test Building, and Building 30259, the Armament Fire Control Building.

The World War I flightline at Patterson Field was completely replaced by a series of large hangars and a new air dock. These facilities housed repair work as well as flight test, accelerated test, and experimental modification functions.

Likewise, Patterson Field saw the growth of hundreds of barracks and their supporting mess halls, chapels, hospital facilities, club and recreational facilities, and permanent commissary and exchange buildings. Two densely populated housing and service areas, Wood City (now Kittyhawk Center) and Skyway park, were geographically separated from the central core of Patterson Field and developed almost self-sufficient community status. They supported the vast numbers of recruits who enlisted and were trained at the two fields, as well as thousands of civilian laborers, especially single women recruited to work for the depot. Following the war, many of these structures were converted to family housing. Skyway Park has subsequently been demolished, and only a handful of the World War II temporary mobilization structures remain. Wood City was acquired in 1924 as part of the original donation of land to the government but was used primarily as a radio range until World War II. Skyway Park was acquired in 1943.

Post World War II

Post-World War II demobilization occurred at military installations across the country, and employment at the base began to level off at approximately 22,000–25,000. Once the dust settled, base leaders recognized the urgent need to implement principles of master planning to make the most logical and efficient use of their facilities. Wright and Patterson Fields both appointed Master Planning Boards, which were eventually consolidated into one body. On September 18, 1947, the USAF was recognized as a separate service under the National Security Act. On January 13, 1948, Wright and Patterson Fields merged to become WPAFB. As a result of the dramatic impact of the base on the local community, on January 1, 1950, the adjacent communities of Fairfield and Osborn were merged to form the City of Fairborn, WPAFB's closest neighbor. Osborn, once located on the northern boundary of the base, had been relocated next to Fairfield following construction of the Huffman Dam in the early 1920s.

Almost immediately after World War II, the Cold War set in. WPAFB played an important role during the infamous Berlin Blockade. During the ensuing efforts to provide aid and supplies to Americans in the city, HQ Air Materiel Command at WPAFB was charged with providing parts and supplies to the Air Force fleet that was involved in transporting the goods. This amazing mission, in which WPAFB earned a distinct place in history, lasted over a year until the East Germans lifted the blockade in September 1949.

Such episodes changed how the United States military was viewed. Americans, including the military, began to perceive an army as virtually obsolete in light of the Cold War. They assumed that if the communist threat was ever realized, then the United States military would respond with air-atomic power. This ideology continued even when the Selective Service Act was passed and the Korean War started. In this sense, the Air Force took on a vital role at this time. Millions of dollars of research continued to pour into air-automatic research and development.

As it turned out, it wasn't long before the Air Force was back in combat. In 1950, North Koreans crossed the 38th parallel, launching the Korean War and prompting Air Force transports in Japan to enter Korea to evacuate Americans. Troops in America were activated and sent to the Far East in a mobilization effort that would cause the Air Force personnel strength to swell from its post-World War II low of 305,827 to 977,593 by 1953.

In the Korean conflict, much of the support function within the Air Force rested on the Air Materiel Command (AMC) at WPAFB. Over 400 aircraft were overhauled and modified by AMC for this purpose and sent into action. In addition, Congress and the military both agreed on the imminent need to use the latest developments in aerospace technology, and when Congress appropriated $10 million for this purpose, much of the resulting work was entrusted under the direction of AMC. Before that time, the Air Force only had one jet aircraft in its Far East forces, the F-80; WPAFB proved to be integral in the design and production of several new airplanes, the F-84 Thunderjet and the F-86 Sabre, both of which were used at the Korean front and were capable of defeating the Communist MiG in aerial combat.

As conflict in Korea continued, the Air Force expanded its activities around the globe, and this was reflected at WPAFB, where the pace increased to that of wartime levels. Employment levels swelled, workloads increased in all areas, and the existing housing shortage was exacerbated.

Other changes that occurred on the base because of the Korean War mobilization included 24-hour operations on the Area A flightline, clothing drives to aid Korean War victims, and due to reserves being called into action across the country, the deactivation of the Air Reserve Training Branch. Those wounded in the Korean War were treated at WPAFB hospitals, and a blood donor center was set up.

AMC's role within the Air Force became enormous during this time. Its work force and appropriations increased considerably. In the early 1950s, the command began to decentralize many of its functions so it could concentrate on systems procurement. The process of relocating many of its functions to outlying areas was an arduous one that took four years before it was complete in 1957. The Air Force unit at WPAFB that was charged with the difficult task of administering this process was the 2750th Air Base Wing.

One of the most significant changes, however, that occurred within the Air Force structure in the early postwar era after 1947 was the separation of the research and development function from that of production. Prior to 1951, AMC had handled both areas, with the result that basic research in cutting edge aerospace technology often took a backseat to applied research. Air Force Chief of Staff General Hoyt S. Vandenberg recognized the many potential dangers in this, including the possibility of a second-rate air force. Vandenberg appointed a special committee to study this in 1949, and a new command was subsequently created. In April 1951, the Air Research and Development Command (ARDC later the Air Force Systems Command), was activated and became responsible for all research and development engineering on aircraft and aerospace equipment. At WPAFB, where the new command was headquartered, laboratories in Area B underwent conversions that year to form the Wright Air Development Center. This center, the largest of ten ARDC research and development centers throughout the country, retained its functions when ARDC relocated its headquarters to Baltimore, Maryland, in June of that year.

Responsibility for weapon system acquisition, however, continued to reside with the post-war Air Materiel Command (AMC), which was the sole procuring activity within the Department of the Air Force throughout the 1950s.

The Aerodynamics Research and Test Laboratory (relocated to Wright Field in 1927) was re-organized in 1951 into two branches: the Wind Tunnel Branch and the Aerodynamic Branch. By the 1950s, the Wind Tunnel Branch operated wind tunnel facilities in Buildings 19, 24, 25, and 26 at Wright Field. And with the rapid advances in aerospace technology achieved in the mid-1950s, a new laboratory complex for air technology research was planned by Wright Air Development Center (WADC); its buildings were dedicated in 1958. The new Aeronautical Research Laboratory Physical Sciences Building (Building 20450) was a large, low, steel-frame building with several wings and glass, aluminum, and concrete exterior walls. It was constructed in the hilltop area of Area B at a time when several wind tunnel complexes operated by the Flight Dynamics Laboratory's Aeromechanics Division were being phased out or donated to other organizations.

Air Materiel Command entered a new era in the field of logistics with the purchase of its first computer, a Remington Rand UNIVAC, in 1954. The complex work of computing logistics requirements was soon automated, allowing supply, maintenance, and procurement information to be integrated at levels previously unimaginable.

In 1954, WPAFB joined other air bases around the country in an indoctrination program that would train pilots in the transition to using jet aircraft. Further change within the Air Force that had a profound effect on WPAFB was the creation of the Logistics Airlift (LOGAIR) system in 1954. The unit was based at WPAFB. Although initially established to provide an efficient air transportation network to support AMC logistics distribution operations, LOGAIR was soon providing much-needed transportation services to many other commands within the Air Force.

Other construction in the 1950s included the current USAF Medical Center and a host of buildings to meet base housing needs. New housing units included the Kittyhawk Center dormitories, VOQ Buildings 10825 and 10826, and the Page Manor housing complex, which was privately constructed in 1952-1953 but subsequently purchased by the Air Force in 1960. (Woodland Hills, another military family housing complex on the base, was constructed in 1971-1972 on land that was acquired during World War II. Housing areas Pine Estates and Green Acres were likewise built in the early 1970s adjacent to the USAF Medical Center).

WPAFB was host to three major combat units during the 1950s: the 56th Fighter-Interceptor Squadron, the 58th Air Division of the Air Defense Command, and subsequently the 4043rd Strategic Wing (later re-designated the 17th Bomb Wing) of Strategic Air Command (SAC). Originally founded during World War II, SAC quickly assumed the task of providing deterrence against Soviet strategic bombers in the post-war era. During the early Cold War, risk of Soviet attack became more of a threat because of the development of long-range bomber aircraft that could be refueled in the air. This factor, along with the Soviet development of an atomic bomb in 1949, made nuclear attack on the continental United States a possibility. The installation of a SAC wing at Wright-Patterson was a direct result of a plan to disperse strategic bombers in order to make them less vulnerable to missile attack. The 4043rd Strategic Wing was activated in April 1959 and its facilities were built on land that had been purchased by the government and added to WPAFB in 1954.

The first SAC crews used an existing alert facility (Building 30151) that had been built to house Air Defense Command (ADC) flight crews, while new buildings for the SAC wing were under construction from 1959-1961. Units associated with the 4043rd included the 42nd Bombardment Squadron, the 922nd Air Refueling Squadron, and the 66th Aviation Depot Squadron. Most of the structures to house these units were finished by 1961. Overall, SAC constructed 24 building at WPAFB, including major structures like the Alert Scramble Facility (also known as the mole hole or Building 34004), operations buildings, maintenance nose docks (Building 34020), and minor structures like utility facilities and traffic check houses. The alert scramble facilities, Buildings 30153 and 34004 in Area A, are considered historically significant post-World War II construction. (Building 30153 is currently home of the WPAFB Aero Club while Building 34004, located on the West Ramp of the WPAFB flightline, is an operations and air crew facility for the 445th Airlift Wing.) In addition, the SAC units required a significant amount of infrastructure, including storage magazines and shops (Buildings 34042, 34044, 34046, and 34066), which were necessary for the Hound Dog air-to-ground nuclear missile system and the Quail decoy system.

Realignment of responsibilities between Air Research and Development Command (ARDC) and Air Materiel Command (AMC) in 1961 resulted in several major changes at WPAFB. ARDC, with headquarters at Andrews AFB, assumed AMC's function of procurement and production for new systems and was re-designated the Air Force System Command (AFSC). AMC was simultaneously redesignated as Air Force Logistic Command (AFLC). The procurement responsibilities of AMC's Aeronautical Systems Center were added to the research and development functions of Wright Air Development Division, and the resulting organization was named the Aeronautical Systems Division (ASD).

In October 1962, the Cuban Missile Crisis placed the SAC units at WPAFB on high alert status and all aircraft units were recalled to the alert facility. The wing remained on alert status for about ten days during the crisis. The following year, in 1963, the 4043rd Strategic Wing was re-designated as the 17th Bombardment Wing (Heavy). The wing continued to operate at WPAFB and supported several strategic bombing missions associated with the Vietnam War from 1968—1973. However, in September 1975, the 17th Wing left WPAFB, and several of its buildings (located at the West Ramp area) were re-assigned to the 4950th Test Wing. Since 1994, the West Ramp area has been occupied by the 445th Airlift Wing, which is involved in transporting troops and cargo and in aero-medical evacuation missions.

Many other changes occurred at WPAFB in the 1990s; another restructuring in 1992 merged the functions of AFSC with those of AFLC to form Air Force Materiel Command (AFMC), headquartered at WPAFB. The Aeronautical Systems Division became part of AFMC and was re-designated Aeronautical Systems Center (ASC). Over the years, the weapon system acquisition process has been continually refined in ASC's system program offices, which have facilitated the transfer of technology from WPAFB laboratories to direct application in many different Air Force programs.

WPAFB is arguably the most important base in the Air Force. It is the headquarters for the Air Force's worldwide logistics system, and it is the headquarters for Air Force weapon system development and procurement. It is also the headquarters for the Air Force Research Laboratory and home to both a major research laboratory complex, the second largest Air Force medical center, and the National Museum of the U.S. Air Force. WPAFB is the heart of U.S. Air Force graduate education and has continued engineering and research development with cooperative research efforts among laboratories and universities. These efforts have contributed to the development of such projects as the B-2 ("stealth") bomber and the Space Shuttle. The age of the base, coupled with its continuous vital air power mission and its significant and often unique functional architecture, also make it one of the Air Force's most historic base.

8.3 Ethnohistory and Native American Access
Installation Supplement

Applicability Statement:

This SOP applies to USAF installations that receive requests from Native American Tribes or tribal members for access to USAF property for various reasons.

Background/Overview:

Members of federally recognized tribes have the right to access sites of traditional, cultural, or religious importance on lands under USAF control and to practice traditional religious activities associated with these sites. Tribal members may also request permission to collect small amounts of minerals or plant or animal materials for traditional, cultural, or religious purposes. Installations should routinely grant such permission, within the constraints of operational and/or safety concerns.

Procedure:

NOTE: Specific access procedures are developed through coordination with affected Native American Tribes should a tribe/group request visitation. Below is an example procedure for consideration when developing an installation-specific procedure:

The Wing Commander, or Designee, should:

- Perform initial contact required to establish government-to-government relationships with tribes and consult with tribal leaders
- Establish procedures for day-to-day working relationships with appropriate tribal representatives
- Establish government-to-government relationships with federally recognized affiliated tribes
- Document all government-to-government contacts, identification of specific tribal requirements and POCs for future consultation and coordination activities

The ITLO, with assistance from the CRM and other installation personnel as appropriate, should:

- Identify appropriate tribes with whom to establish ongoing relations for involvement in any subsequent planning processes. Document appropriate tribes, affected lands and specific access procedures in the 'Native American Tribes with Ancestral Ties to Installation Lands' table below
- Facilitate and maintain government-to-government relationships
- Compile and maintain a list of tribal POCs for consultation and coordination
- Brief incoming commanders on their responsibilities and arrange meetings, as appropriate
- Conduct routine consultation and coordination with affiliated tribes per the requirements identified during the government-to-government contact
- Maintain documentation of consultation and coordination and other contracts

Native American Tribes with Ancestral Ties to Installation Lands

Native American Tribe	Affected Lands	Access Procedures and Agreements
None identified	None identified	Not Applicable

There are no tribes which have identified any ancestral ties to the installation lands. None of the five tribes that have expressed an interest in WPAFB have identified any traditional cultural resources on the base. However, the following tribes have expressed an interest in receiving Section 106 notices from the Installation based on the Installation Tribal Relations Plan (ITRP):

Keweena Bay Indian Community; Sac and Fox of the Mississippi in Iowa; Saginaw Chippewa Indian Tribe; Seneca Cayuga Nation; Seneca Nation of Indians.

In May of 2016 WPAFB held a consultation meeting with the five tribes noted above, chaired by the Wing Commander at that time. This consultation resulted in the establishment of an Installation Tribal Relations Plan which outlines when we consult and on which type of activities we consult. It also outlines a yearly meeting with the tribes by teleconference.

9 GOALS AND OBJECTIVES

The installation establishes long term, expansive goals and objectives to protect historic properties and other cultural resources while accomplishing mission objectives. These goals and objectives may serve as drivers for implementation of this ICRMP and for funding of related projects and activities. The Goals and Objectives table below summarizes key goals and objectives for the Cultural Resources Management Program.

Installation Supplement

Goals and Objectives

Goals	Asssociated Objectives	Status
Obtain SHPO concurrence on base facilities eligibility	*Complete re-assessments of previous evaluations and consult with SHPO*	Review and production of a report for submittal in progress
Create a publically accessible center for interprtation of WPAFB history	*Continue to advocate for this with CEG and 88 ABW*	Ongoing
Bring to fruition public partnership opportunities	*Continue ongoing efforts with the wing partnership group*	Ongoing

NOTE: Refer to the Cultural Resources Environmental Action Plan (EAP) when setting goals. Document installation objectives and supporting tasks in the ICRMP as well as into the EAP tool.

10 PROGRAMMING AND PLANNING

10.1 USAF and Installation Actions

USAF and installation mission-related activities have the potential to adversely affect cultural resources and historic properties. Federal regulations and USAF policy require that cultural resources are protected or effects to said resources are minimized or mitigated. Activities or projects that could pose an adverse effect to cultural resources include, but are not limited to:

- Continued use, repair, modernization, adaptation/reuse, preservation, and/or demolition of existing facilities, including historic buildings
- New construction of facilities
- Land use (e.g., training exercises, flight operations, off-road vehicular traffic, forest management, threatened and endangered species management, wildland fire suppression, erosion control, prescribed burning, and live ordnance use)
- Ground disturbance

The installation eliminates and/or resolves conflicts by assuring that undertakings with the potential to adversely affect cultural resources are properly planned and executed. The CRM and installation project managers and planners work together to identify and manage potential conflicts. Adverse effects to cultural resources resulting from standard or routine activities may be avoided or mitigated by following established environmental and cultural resources management procedures (i.e., completing AF Form 332).

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As of 2011, WPAFB is divided into two sections, Areas A and B. Area A now consists of what was historically referred to as the separate Area A and Area C. This consolidation does not affect the building and structure numbers or other historical references to Area C.

WPAFB has a number of missions critical to national defense. The development and acquisition of all existing and new aircraft weapon systems for the Air Force is one of those missions, and this component is managed through the Air Force Life Cycle Management Center, located in Area B of the base.

WPAFB is the headquarters for the Air Force Materiel Command, which conducts research, development, testing, and evaluations, and provides the worldwide acquisition management services and logistics support that is needed to keep Air Force weapons systems ready for use. It is the home of the HQ Air Force Research Laboratory and five of the ten laboratories; the Air Force Institute of Technology, the heart of Air Force graduate education; WPAFB Medical Center, the second largest Air Force medical center; the National Air and Space Intelligence Center (NASIC); and the National Museum of the United States Air Force. Operating support for the base is provided by the 88th Air Base Wing.

The 'Mission Activities and Solution' table below identifies mission-related activities that will adversely affect cultural resources and proposed solutions and mitigating activities to address the identified effect.

Mission Activities and Solutions

USAF/Installation Activity and Cultural Resources Affected	Solutions and Mitigating Activities	Status
Annual review of the Five year plan which includes the installation's programmed projects for the Future Year Defense Plan.	CRM should be included in base master planning activities, including reviews of updates to the base-wide master plan, area master plans, and detailed area plans. Inform architects and engineers of cultural resources. Provide a listing of all historic facilities and archaeological sites on an annual basis or as inventories change, and conduct training on cultural resources and Section 106 compliance measures.	Ongoing
Demolition projects listed in "Five-year plan which includes the installation's programmed projects for the Future Year Defense Plan (FYDP)."	Request annual updates of FYDP, demolition, and MILCON proposals from Civil Engineer Programs Division (CEP).	Ongoing
Weekly review of proposed construction projects from AF Forms 332, 813 and DD 1391.	Review construction projects, work orders, and other planning documents early in the planning phase. By reviewing the project early, the CRM may be able to suggest ways to avoid or minimize potential adverse effects.	Ongoing

10.2 Cultural Resources Project Programming and Execution

DAF Planning, Programming, Budgeting, and Execution (PPBE) is the process of acquiring funding for activities. Acquisition of cultural resources-related work follows standard DAF PPBE processes. The Environmental Quality PPBE Playbook contain detailed information on funding and contracting.

The CRM, with support from the AFCEC/CZO Installation Support Section (ISS), ensures that cultural resource management activities are planned and programmed to receive funding. Cultural resource projects and actions may be required by: agreement documents, results of gap analyses, audit/assessment findings, on-going program requirements (e.g., Section 110 surveys and evaluations), urgent installation needs (e.g., changes to military training requirements), and other drivers. Cultural resources activities are executed according to fund eligibility guidelines.

The 'Project Programming and Execution Work Plan' table found in Appendix L outlines cultural resources management requirements for the five years of this ICRMP cycle. Projects entered into this Work Plan should match Resource Allocation Model (RAM) entries, which contains a detailed list of all installation cultural resources requirements over the five-year period of the ICRMP. The installation and ISS must update this Work Plan at least once per year.

12 ACRONYMS

Standard Acronyms *(Applicable to all USAF Installations)*

- eDASH Acronym Library
- Cultural Resources Management Playbook – Acronym Section
- U.S. EPA Terms & Acronyms

Installation Supplement

- WPAFB – Wright-Patterson Air Force Base
- AFMC – Air Force Materiel Command
- AFLCMC – Air Force Life Cycle Management Center
- AFRL – Air Force Research Laboratory
- NASIC – National Air & Space Intelligence Center
- AFIT – Air Force Institute of Technology

13 DEFINITIONS

Standard Definitions *(Applicable to all USAF Installations)*

- Cultural Resources Management Playbook– Definitions Section

Installation Supplement

Installation Definitions

- No installation definitions

14 INSTALLATION-SPECIFIC CONTENT

Installation Supplement

This section intentionally left blank. No data

B BUILT RESOURCES INVENTORY TABLES

Installation Supplement

See Appendix A above for built resources

C TRADITIONAL CULTURAL RESOURCES INVENTORY TABLES

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None identified

D NHPA SECTION 106 MEMORANDA OF AGREEMENT

Installation Supplement

All memorandum of agreement documents can be found in the 88 CEG/CEIE Cultural Resources shared drive. The volume of the documents is far too large to include in this document. All documents are also available upon request.

E NHPA SECTION 106 PROGRAMMATIC AGREEMENTS

Installation Supplement

All programmatic agreement documents can be found in the 88 CEG/CEIE Cultural Resources shared drive. The volume of the files would make this document far too large for inclusion. All documents are also available upon request.

F INSTALLATION TRIBAL RELATIONS PLAN

Installation Supplement

The Installation Tribal Relations Plan and all related documents can be found in the 88 CEG/CEIE Cultural Resources shared drive. The volume of the files would make this document far too large for inclusion. All documents are also available upon request.

G TRIBAL AGREEMENTS
Installation Supplement

No agreements with the five tribes have been executed as of 2021, however a government to government consultation meeting was held in May of 2016 at WPAFB with the five tribes and an Installation Tribal Relations Plan was approved by AFCEC in 2016. Follow on agreements are not expected at this time.

H WING INSTRUCTIONS OR POLICY DOCUMENTS
Installation Supplement

Any installation specific instructions or policy documents can be found in the 88 CEG/CEIE Cultural Resources shared drive and are available upon request.

I ARCHAEOLOGICAL SURVEY AND SITE FORMS
Installation Supplement

This appendix intentionally left blank. No data is presented here. All surveys and site forms are located in 88 CEG/CEIE office archives and are available upon request.

J HISTORIC PROPERTY SURVEY AND SITE FORMS
Installation Supplement

This appendix intentionally left blank. No data is presented here. All surveys and site forms are located in 88 CEG/CEIE office archives and are available upon request.

K HISTORIC BUILDING MAINTENANCE PLANS
Installation Supplement

Any installation specific building maintenance documents can be found in the 88 CEG/CEIE Cultural Resources shared drive and are available upon request.

L PROJECT PROGRAMMING AND EXECUTION WORK PLAN
Installation Supplement

Programming and Planning Work Plan

FY	Project Title and Description	Timeline	Status
	Identify and complete updated building evaluations for buildings reaching the 45 year age mark.	As Required	Ongoing
	Assess and review projects for FY20 through FY25 that may affect historic buildings, and ensure that historic building		

	projects contain appropriate treatments. Projects include those developed through MILCON / FYDP for CE projects.	Continuous	Ongoing
	Programmatic Agreement (FY?)	SHPO dependent	On hold
19	Finalize coordination efforts with AFCEC on the EIS for privatization of the Brick Quarters	Underway	Awaiting public meetings
20	Managing Cultural Sites – General management	Annual	Ongoing
20	Managing Cultural Sites - Rehabilitate the historic Arnold House	Funding dependent	Awaiting funding
20	Remote sensing of Native American mounds and Wright Memorial	Completed	Awaiting report
21	Managing Cultural Sites – Mound erosion assessment and monitoring	Funding dependent	Awaiting funding
21	Managing Cultural Sites – Wright Memorial restoration	Funding dependent	Awaiting funding
22	WM Bluestone restoration (scheduled pending receipt of funding)	Underway	Construction to start Aug 2021
22	Anticipate relocation of the WWII POW Mural in Facility 10280	Milcon dependent	
22	Advocate for a location to relocate the 5' wind tunnel and POW mural	Milcon dependent	Under study

M PRIVATIZED HOUSING DOCUMENTS

Any installation specific housing documents can be found in the 88 CEG/CEI Housing shared drive and are available upon request.

N RESERVED FOR INSTALLATION USE

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Unused