INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN FORT DRUM

FISCAL YEARS 2021-2025



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Abbreviations and Acronyms

ACHP Advisory Council on Historic Preservation, also "Council"

ACE Army Environmental Center

AIRFA American Indian Religious Freedom Act

APE Area of Potential Effect

ARPA Archaeological Resources Protection Act

B.C. Before Present ("years ago")

BS Below Surface

CA Comprehensive Agreement (per 43 CFR 10)

CFR Code of Federal Regulations

CRM Cultural Resources Manager (Cultural Resource Management)

CRMP Cultural Resources Management Plan

CRP Cultural Resources Program

DA Department of the Army

DEP Director of Environmental Programs

DLE Director of Logistics and Engineering

DoD Department of Defense

DoI Department of the Interior

DPW Department of Public Works

EA Environmental Assessment

FY Fiscal Year (October 1—September 30)

FRNAIT Federally Recognized Native American Indian Tribes

GIS Geographical Information System

GPS Geographical Positioning System

HABS/HAER Historic American Building Survey/Historic American Engineering

Record

HQDA Headquarters, Department of the Army

ICRMP Integrated Cultural Resources Management Plan (this document)

ITAM Integrated Training Area Management

MACOM Major Army Command

MOA Memorandum of Agreement (per 36 CRF 800)

MOU Memorandum of Understanding

NAGPRA Native American Graves and Repatriation Act

NEPA National Environmental Policy Act

NHL National Historic Landmark

NHPA National Historic Preservation Act

NPS National Park Service

NRHP National Register of Historic Places (also: NR, or "the Register")

PA Programmatic Agreement (per 36 CFR 800)

RCO Range Control Officer

S-106 Section 106, National Historic Preservation Act

NYSHPO New York State Historic Preservation Officer

SHPO State Historic Preservation Officer

SOP Standing Operating Procedure

THA Timber Harvest Area

TJAG The Judge Advocate General

USACE U.S. Army, Corps of Engineers

USGS United States Geological Survey

FORT DRUM INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN (ICRMP) EXECUTIVE SUMMARY

The primary obligation of the Cultural Resources Program (CRP) is to support Fort Drum's military mission while keeping the Garrison in compliance with the National Historic Preservation Act. This revised ICRMP builds upon previous ICRMPs and previous program success by focusing on elements and priorities identified as significant by internal and external stakeholders. It meets the Fort Drum Installation Planning Board (IPB) Strategic Action Plan and is fully compatible with the Installation Master Plan. The Garrison Commander is the approving authority for this ICRMP and any future updates.

The Cultural Resources Program (CRP) executes the following programs on Fort Drum to fulfill the requirements under federal law to identify, evaluate, and preserve cultural resources:

- Conduct internal review of Fort Drum projects and activities for cultural resources concerns.
- Conduct archeological reconnaissance survey of areas of high cultural resources sensitivity and significant training impacts.
- Manage the National Register listed LeRay Mansion Historic District and its contributing structures with a goal of maintaining the highest levels of stewardship and in accordance with the Secretary of Interior Standards for the Treatment of Historic Properties
- Evaluate archeological discoveries using the highest standards of scientific excellence in order to make determinations of potential eligibility for sites deemed worthy of protection and/or mitigation.
- Conduct review per Section 106 of the National Historic Preservation Act (NHPA) in cooperation with the New York State Historic Preservation Office (SHPO), the Advisory Council and federally recognized Native American Indian Nations, as the need arises.
- Consult with federally recognized Native American Indian Nations in accordance with Section 106 of the NHPA, the American Indian Religious Freedom Act (AIRFA), the Native American Graves Protection and Repatriation Act (NAGPRA), and DoD and Army Native American Consultation Policy.

- Provide assistance to other interested parties with consultation issues should the need arise.
- Install and maintain signage to protect significant archeological sites on Fort Drum, including installation of internationally recognized cultural resources signs to improve troop identification in real world situations.
 - Whenever possible, incorporate Fort Drum's archaeological sites and historic resources into training scenarios and injects.
- Conduct periodic monitoring of significant archeological sites to assess any need for further protection or mitigation
- After appropriate Section 106 consultation, and development of any necessary agreements, mitigate adverse effects to significant archeological sites through site protection, data recovery, or other means as negotiated and required.
- Curate artifacts and associated records in accordance with 36 CFR 79 and Army Curation Procedures.
- Implement new standard operating procedures (SOP) for curation.
- Distribute literature and accurate information, developed by the cultural resources team, describing the history and prehistory of the Fort Drum region.
- •Provide public outreach, including but not limited to field trips, for both members of local and Fort Drum communities to visit the cultural landscapes of the installation, and to also educate the military on the manner and need for cultural resources protection at Fort Drum and abroad.
- Implement measures to control management of sensitive cultural resources information.
- Conduct cultural resources law enforcement to enforce the Archeological Resources Protection Act of 1979 (ARPA).
- To maintain the Fort Drum POW Cemetery in accordance with Army Cemetery National Shrine Standards

- To cooperate with DPTMS Range and DPW Roads and Grounds to maintain the historic cemeteries found within the perimeter of the Fort Drum boundary and prepare them for occasions of public visitation.
- Conduct annual reviews of the ICRMP or as needed.
- Draft a full-scale update of the ICRMP in 2024

The plan is designed to follow a pattern that resembles the rolling five-year fiscal program and budget cycle used by the Department of Defense (DOD) and should receive updates accordingly. The ICRMP provides a setting to examine long-term management goals on critical issues while providing the road map and guidelines for achieving these goals through programmatic excellence. Thus, as it evolves, the periodic major reviews intentionally serve as a reference point for relevance to command interests. Command approval of the plan assumes confidence in the program. Approval also serves as the delegation of responsibility for effective cultural resources management to the Cultural Resources Program Manager (CRM) through the Garrison and DPW Chain of Command. The CRM updates the ICRMP as needed to ensure that current installation activities and funding requirements are fully integrated into the plan.

The full ICRMP includes an introduction; a description of Fort Drum's cultural resources management strategy including integration with other Fort Drum programs; a discussion of the Fort Drum archaeological survey; detailed standard operating procedures for typical Fort Drum cultural resources activities; and appendices that offer definitions of applicable laws and regulations; detailed information concerning Fort Drum's environment, prehistory, history and associated cultural resources assets; templates for archiving Fort Drum cultural resources information and objects; historic structure maintenance plans; and disaster planning documents.

The target audience for the ICRMP is the Fort Drum Cultural Resources Management Program, Environmental Division, Directorate of Public Works (PW). Other installation organizations that coordinate with the CRP and may use the ICRMP as a reference tool include: DPTMS, PW-Natural Resources Management Branch including NEPA and Fort Drum Engineering Division, Master Planning, DES, JAG and PAO.

CHAPTER ONE: INTRODUCTION

This document is an updated version fulfilling the requirements of DOD instructions 4715.3, AR 200-1 and DA 200-1 and is an update of the plan prepared for Fort Drum for Fiscal Years (FY) 2011-2015. It differs from the previous ICRMP and was created following a template to ensure compliance with current regulations. Further it has corrected SOPs in the following areas:

- Cemetery Management
- Artifact curation methods and facility
- NAGPRA/ consultation
- Dissemination of Program Activities to Concerned Parties and the Public (Outreach)

The ICRMP is designed to be a component of the Installation Master Plan, to complement other Fort Drum plans and to serve as the installation's decision document for the conduct of cultural resources management actions. The Fort Drum ICRMP is an internal Army compliance and management plan designed to integrate the entirety of the installation's cultural resources program with ongoing mission activities, allow for ready identification of potential opportunities for contribution and support of the installation's missions, and identify compliance actions necessary to maintain the availability of mission-essential properties and acreage.

Cultural Resources are best expressed as follows:

"Cultural resources can be defined as physical evidence or place of past human activity: site, object, landscape, structure; or a site, structure, landscape, object or natural feature of significance to a group of people traditionally associated with it."

Fort Drum has hundreds of examples that can be defined as Cultural Resources, including the LeRay Mansion Historic District, five archeological historic districts, and a series of significant Native American ancestral places.

The Cultural Resources Manager (CRM), in accordance with AR 200-1, provides for the day-to-day management of these cultural resources, ensuring that all installation activities are in compliance with applicable cultural resources management requirements. Despite the ICRMP being a five-year plan, each year the Fort Drum CRM is required to prepare an annual work plan that both implements the long-term goals of the ICRMP and prioritizes program goals as a

response to short-term mission goals and requirements of the installation. Annual work plans allow flexibility, as the CRM cannot always predict which projects will have command interest from year-to-year.

1.1 Purpose and Scope of the ICRMP

This revised ICRMP builds upon the previous ICRMP in terms of including those elements identified as significant issues by internal and external stakeholders during the review process but differs from the previous ICRMP in several respects. It meets the Fort Drum Installation Planning Board (IPB) Strategic Action Plan, and the primary obligation of the Cultural Resources Program is to support Fort Drum's military mission. The Garrison Commander is the approving authority for this ICRMP and any future updates.

The target audience for the ICRMP is the Fort Drum Cultural Resources Management Program, Environmental Division, Directorate of Public Works (PW). Other installation organizations that coordinate with the CRP and should use the ICRMP as a reference tool include: DPTMS, PW-Natural Resources Management Branch including NEPA, Fort Drum Engineering Division, Master Planning, DES, JAG and PAO.

The Cultural Resources Program (CRP) is continuing to execute the following programs on Fort Drum to fulfill requirements to inventory, evaluate, nominate, and preserve cultural resources:

- Conduct internal review of Fort Drum projects and activities for cultural resources concerns.
- Conduct archeological reconnaissance survey of areas of high cultural resources sensitivity and significant training impacts.
- Evaluate archeological discoveries using the highest standards of scientific excellence in order to make determinations of potential eligibility for sites deemed worthy of protection and/or mitigation.
- Manage the National Register listed LeRay Mansion Historic District and its contributing structures with a goal of maintaining the highest levels of stewardship and in accordance with the Secretary of Interior Standards for the Treatment of Historic Properties.

- Conduct review per Section 106 of the National Historic Preservation Act (NHPA) in cooperation with the New York State Historic Preservation Office (SHPO), the Advisory Council and federally recognized Native American Indian Nations, as the need arises.
- Consult with federally recognized Native American Indian Nations in accordance with Section 106 of the NHPA, the American Indian Religious Freedom Act (AIRFA), the Native American Graves Protection and Repatriation Act (NAGPRA), and DoD and Army Native American Consultation Policy.
- Provide assistance to other interested parties with consultation issues should the need arise.
- Install and maintain signage to protect significant archeological sites on Fort Drum, including installation of internationally recognized cultural resources signs to improve troop identification in real world situations.
 - Whenever possible, incorporate Fort Drum's archaeological sites and historic resources into training scenarios and injects.
- Conduct periodic monitoring of significant archeological sites to assess any need for further protection or mitigation
- After appropriate Section 106 consultation, and development of any necessary agreements, mitigate adverse effects to significant archeological sites through site protection or data recovery as required.
- Curate artifacts and associated records in accordance with 36 CFR 79 and Army Curation Procedures.
- Implement new standard operating procedures (SOP) for curation.
- Distribute literature, developed by the cultural resources team, describing the history and prehistory of the Fort Drum region.
- •Provide public outreach, including but not limited to field trips including members of both Fort Drum and local communities to cultural landscapes of the installation and education of the military on the manner and need for cultural resources protection on Fort Drum and abroad.

- Implement measures to control management of sensitive cultural resources information.
- Conduct cultural resources law enforcement to enforce the Archeological Resources Protection Act of 1979 (ARPA).
- To maintain the Fort Drum POW Cemetery in accordance with Army Cemetery National Shrine Standards
- To cooperate with DPTMS Range and DPW Roads and Grounds to maintain the historic cemeteries found within the perimeter of the Fort Drum boundary and prepared them for occasions of public visitation.
- Conduct annual reviews of the ICRMP or as needed.
- Implement a full-scale update of the ICRMP in 2024

The plan is supposed to follow a pattern that resembles the rolling five-year fiscal program and budget cycle used by the Department of Defense (DOD) and should receive updates accordingly or when needed. The ICRMP provides a setting to examine long-term management goals on critical issues, and to achieve consensus about these goals. Thus, as it evolves, the periodic major reviews intentionally serve as a reference point for relevance to command interests. Command approval of the plan assumes confidence in the program. Approval also serves as the delegation of authority and responsibility to the Cultural Resources Program Manager (CRM) through the Garrison and DPW Chain of Command. The CRM updates the ICRMP as needed to ensure that current installation activities and funding requirements are fully integrated into the plan. The scope of this plan includes regulations and guidance that are beyond the statutory authority of the New York State Historic Preservation Office (NYSHPO) and the Advisory Council on Historic Preservation (ACHP), and any Native American groups with ancestral roots on Fort Drum property. The plan is not intended to be the subject of, implemented by reference to, or included in National Historic Preservation Act (NHPA) Programmatic Agreements (PAs), Memoranda of Agreement (MOAs), or Native American Graves Protection and Repatriation Act (NAGPRA) Comprehensive Agreements (CAs). However, the sections of the Fort Drum ICRMP that pertain to NHPA or NAGPRA compliance can be extracted from the document, and those actions can be integrated by reference into a PA, MOA, or CA.

1.2 Cooperation: Military Personnel and Non-military Participants

Cooperation within the Installation:

- Public Works, Environmental and Engineering Divisions
- Readiness Business Center, Range Division
- Directorate of Morale, Welfare, and Recreation
- Public Affairs Office
- Protocol
- Staff Judge Advocate
- Tenant Activities
- 10th Mountain Division Museum
- Directorate of Emergency Services

Outside agencies with an interest in Fort Drum Cultural Resources:

- Federally Recognized Native American Tribes or Nations with cultural affiliations to Fort Drum; currently Fort Drum enjoys robust partnerships with the Oneida Indian Nation, the Onondaga Nation, and the St. Regis Mohawk Tribe
- The New York State Historic Preservation Office (NYSHPO)
- Colorado State University Center for the Environmental Management of Military Lands (CEMML)
- Historic "Lost" Village Residents
- Boy and Girl Scouts
- Jefferson County Historical Society
- Lewis County Historical Society
- Village of Sackets Harbor
- Sackets Harbor Battlefield State Historic Site
- 4 River Valleys Historical Society
- The New York State Museum
- Hamilton College

- Queens University, Kingston, Ontario, Canada
- St. Lawrence University
- State University of New York (SUNY) College at Potsdam
- Colgate University
- Syracuse University
- New York Archeology Council (NYAC)
- Thousand Islands Chapter of the New York State Archeology Association
- Army ROTC/ Cadet Command
- The Archaeological Institute of America
- The Smithsonian Institution
- The University of Pennsylvania

Currently, Fort Drum's only cultural resources agreement is an Inadvertent Discovery Agreement negotiated with the Oneida Indian Nation to be activated in a situation of inadvertent discovery of human remains on Fort Drum. This agreement also honors the relationship between the Oneida Indian Nation and the US Army dating back to Valley Forge. Fort Drum also has a letter from the Division Commander, then MG Michael L. Oates to the Onondaga Nation, assuring them that they may use the Haudenosaunee Village site, a site that already contains burials, as a safe place for interments of repatriated remains if they so choose.

1.3 Location, Origin and Formation of Fort Drum

The location of Fort Drum, NY is 44.042332 latitude, and -75.758163 longitude. Fort Drum, NY, Headquarters has the GPS coordinates of 44° 2' 32.3952" N and 75° 45' 29.3868" W. The elevation is 196 meters or 643 feet. Fort Drum is located in northwestern New York, east of Lake Ontario, north of the Tug Hill Plateau and in the western foothills of the Adirondack Mountain region. The reservation encompasses portions of Jefferson and Lewis Counties and is entirely in the Ontario-Saint Lawrence drainage basin. Glacial push, melt-water deposition, and isostatic uplift are the primary factors that shaped the region's current landscape during the final phase of the last ice age. The ecoregions are the Eastern Lake Ontario, Western Adirondack Transition and Black River Valley with sand and limestone influenced soils that often contain

more specialized and/or rare plants and plant communities, and St. Lawrence River Valley and Indian Lakes Transition ecoregions, with more common loamy or clay soils that support more common plants. A total number of 1020 of plant species have been recorded on Fort Drum, it has 93 landcover/ vegetation type classifications. There is also increasing evidence of ancient land management practices that have influenced the land cover observed on Fort Drum today. Natural Resource surveys have identified and confirmed the presence of 49 mammal, 252 bird, 45 fish, 12 reptile and 18 amphibian species. The invertebrates have yet to be adequately surveyed and so far about 1000 different species of insects have been documented so far.

The first cavalry maneuvers on the location that is now Fort Drum took place in 1907 after Madison Barracks in nearby Sackets Harbor, NY ran out of acreage suitable for large scale military training. In 1908, Brigadier General (BG) Frederick D. Grant, oldest son of President Ulysses S. Grant, led thousands of Soldiers back to the area north of the Great Bend of the Black River, known locally as Pine Plains. BG Grant found Pine Plains to be an ideal place to train troops and he had money allocated to purchase the land, and so summer training continued there through the years. The camp at Pine Plains formally opened on June 11, 1908, and training continued throughout the summer. The first national recognition came in 1935 with the largest peacetime maneuvers, which were held on Pine Plains and the surrounding farmlands. These maneuvers were very successful, and the War Department subsequently purchased an additional 9000 acres of land. The outbreak of World War II and the US involvement in 1941 brought another expansion and an additional 75,000 acres of land were purchased via eminent domain. This purchase included 5 entire villages and numerous farmsteads and parts of surrounding villages, totaling over 3000 buildings, to include 24 schools and 6 churches. During the war, the Army had a POW camp on what was then called Pine Camp. In 1951, the installation was renamed Camp Drum and designated Fort Drum in 1974. In 1984, the installation became the headquarters for the 10th Mountain Light Infantry Division. The unit was re-activated in February 1985 and was renamed the 10th Mountain Division (Light Infantry).

In 1990, the installation was home to approximately 10,000 Soldiers and 15,000 Family members. The construction of 130 new buildings, 35 miles of roads, and 4,272 units of Family housing was completed at a cost of \$1.3 billion, making Fort Drum one of the most modern and attractive military installations in the world. Wheeler-Sack Army Airfield was eventually

expanded to include a 10,000-foot main runway capable of supporting large military and civilian aircraft as well as a rapid deployment facility for efficient processing of passengers and cargo.

Since 1990, the 10th Mountain Division (Light Infantry) has deployed units to combat and peacekeeping operations in Somalia, Haiti, Bosnia, Kosovo, the Horn of Africa, Afghanistan and Iraq. Fort Drum has also been the site for mobilization and deployment of almost 27,000 Soldiers in 985 Reserve Component units from throughout the U.S. in support of the Global War on Terror. Today, Fort Drum is capable of rapidly deploying forces anywhere in the world.

1.4 Fort Drum Land Use Summary

The installation consists of 108,265 acres and is primarily utilized for training by its permanent division, the 10th Mountain Infantry Division (Light). Army Reserve, and Army National Guard and Law Enforcement units frequently train at Fort Drum as well. The garrison directs installation activities and provides administrative and logistical support. Approximately 30,000 acres of the installation are used as firing ranges and impact areas, while over 11,000 acres make up the administrative area or cantonment, including Wheeler-Sack Army Airfield (WSAAF). The remaining 66,000 acres are utilized for troop maneuver and training and are divided into eighteen training areas and seventy sub areas. Fort Drum has 37 developed ranges that support training in a wide variety of weapons systems, small arms, artillery, armor, and aviation.

The main housing area is in the cantonment and is divided into North Post and South Post. South Post has World War II era wood buildings still standing, which are gradually being torn down and/or replaced with new construction. Further, South Post houses a railhead and an industrial area. The North Post area consists of 1980s brick buildings as well as newer structures built in the 1990s and early 2000s. In addition, it houses most of the 10th Mountain Divisions tenant units as well as the Headquarters. The medical clinic and support facilities such as AAFES, MWR-facilities and the commissary are located in the North Post as well.

1.5 Information Gathering, Input, and Review for the Preparation of the ICRMP revision

The ICRMP Revision is the Fort Drum commander's decision document for cultural resources management and specific compliance procedures. This ICRMP Revision is an internal Fort Drum compliance and management plan that integrates all cultural resources program requirements with ongoing mission activities. It also allows for ready identification of potential opportunities for the CRP to directly support installation training missions through analysis of currently known mission actions and activities and identifies compliance actions necessary to maintain the availability of mission-essential properties and acreage.

All cultural resources will be viewed as having the potential to contribute information of value to various groups, including the military, academics, indigenous communities, local historical societies, people whose ancestors settled the area, and many others. Under the NHPA, it is the

responsibility of the Fort Drum to take into account the effects of its actions on cultural resources and to avoid, minimize, or mitigate any impacts that might result from its actions. Fort Drum also has the responsibility to identify and evaluate cultural resources present within the entire installation, both as a proactive measure for planning purposes and to better assess the needs of the resources. In addition, the SHPO and indigenous nations, with ancestral ties to Fort Drum lands, must have an opportunity to participate in the identification and management of the cultural resources at the entire installation, and the public and other stakeholders should be offered the opportunity to participate as well. The Fort Drum CRP recognizes the value of the Army Alternate Procedures to 36 CFR Part 800 for some installations but finds that Fort Drum's current annual reporting and ongoing consultation approach to program management is streamlined, efficient and meets both the letter and the spirit of US federal preservation law and guidelines.

The number and scale of outreach activities have increased since the implementation of the last ICRMP and have been taken into account in this revision. Fort Drum Cultural Resources has been able to increase its visibility and has been able to provide local communities with the ability to access sites on post through guided tours of the installation. Information regarding these tours have been included into this updated ICRMP to offer future guidance.

CHAPTER TWO: CULTURAL RESOURCES MANAGEMENT STRATEGY

This chapter provides an overview of the Fort Drum Cultural Resources Program, its successes and challenges over the past five years related to the implementation of the previous ICRMP, the status of Section 110 investigations, and appropriate compliance and management activities for the next five years. In addition, Fort Drum projects planned for the next five years that require cultural resources compliance and management activities are identified.

Efficient and effective cultural resources management comes from experience and from understanding the role of a cultural resources program in the military setting. Primarily it must be evaluated regularly and integrated into other programs on the military installation and work with outside entities that have an interest.

2.1 Fort Drum Cultural Resources

The inventory managed by the Fort Drum Cultural Resources Program consists of pre-historic sites, or ancestral places, and historic sites. The historic sites consist mostly of farmsteads and village sites that were taken over in the 1940's by eminent domain although Fort Drum also has a fascinating military training history.

The archeological survey completed on approximately 69,000 acres thus far has identified a total of 937 sites that begins with earliest human occupation of the region approximately 13,500 years ago and continues through construction of World War II military training features in the 1940s.

In addition to the archaeological sites, Fort Drum currently tracks 1 National Register Listed Historic District with standing structures, and 5 National Register listed archaeological districts, 2 additional protected archaeological districts and supports management of 13 historic cemeteries. Resources of special concern include the historic districts, 3 sacred sites 13 cemeteries, and a number of archeological sites potentially eligible for listing on the National Register of Historic Places (NRHP).

2.1.1 Cultural Resources Staff Responsibilities

Cultural resources compliance requirements must be completed prior to implementation of mission-essential programs, projects, and training. Fort Drum should always have a Cultural Resources Manager (CRM) that meets or exceeds the qualifications for a federal CRM as stipulated in 36 CFR 79.

To effectively manage a cultural resources program, cooperation and coordination with other garrison and division entities and programs is absolutely essential. In an ideal situation, there would be an awareness of the cultural resources program's responsibilities all across Fort Drum. The CRM also must be aware of the activities of other installation offices that could potentially impact cultural resources. Lack of proponency for cultural resources could ultimately result in insufficient funding for the program and result in non-compliance.

An effective CRM should:

- 1. Understand the military mission.
- 2. Have or acquire an inventory of archaeological resources with locations and maps. This must be closely controlled and discussed on a case-by-case manner.
- 3. Have a clear understanding of how cultural resources management supports the military mission.
- 4. Review proposed programs and projects to determine necessary compliance.
- 5. Align cultural resources compliance with NEPA requirements whenever possible.
- 6. Work on gaining proponents for cultural resources management up the chain of command.
- 7. Know what other installation offices are doing, explain cultural resources responsibilities, and discuss potential impacts on cultural resources.
- 8. Coordinate and consult with outside entities including the SHPO, federally recognized Tribes, and local interest groups, as mandated in the NEPA, NHPA, DoDI 4710.02, AR 200-1, and other laws and regulations summarized in Appendix A below. Neglecting to consult with interested parties early in the planning process could result in unnecessary tension, which will cause delays

that translate into government time and cost. Recent legislation (36 CFR 800, NAGPRA) has strengthened responsibilities to consult with federally recognized tribes.

9. Comply with all applicable laws and regulations, review laws and apply accordingly.

In addition to the above, the duties of a CRM consist of developing, implementing, and monitoring cultural resources projects and insuring that all associated tasks are completed. Also, the developing, updating and implementation of the ICRMP are part of the duties of a CRM. All these tasks can be delegated to other members of the CR staff; however, the CRM is responsible for their completion. The overall management of the program is the obligation of the CRM.

Current staffing of the CRP at Fort Drum consists of the CRM, a program coordinator, an outreach coordinator, and a curator, as well as a seasonal field crew, size of which depends on availability of funds and projects to be completed. In addition, if available, an ORISE intern is responsible for the LeRay Mansion District events and scheduling as part of the Cultural Resources team.

2.1.2 Statutes, Laws and Regulations

AR 201.1 dictates the regulations governing CRM work on US Army installations and provides a list of statutes, laws and regulations to be followed by an installation's CRM program. Any regulation, statute or law can be amended at any time; it is the responsibility of the CRM to stay informed of changes and new regulations. The following is an overview of laws and regulations governing cultural resources on the installation that are the most pertinent.

- Section 470, Title 16, United States Code (16 USC 470).
- Section 1996, Title 42, United States Code (42 USC 1996) and Executive Order (EO) 13007.
- Section 3001, Title 25, United States Code (25 USC 3001).
- Section 470aa-470mm, Title 16, United States Code (16 USC 470); Sections 431–433, Title 16, United States
- Code (16 USC 431–433); and Section 469, Title 16, United States Code (16 USC 469).

- Part 79, Title 36, Code of Federal Regulations (36 CFR 79).
- Part 800, Title 36, Code of Federal Regulations (36 CFR 800).
- Part 229, Title 32, Code of Federal Regulations (32 CFR 229).
- Part 10, Title 43, Code of Federal Regulations (43 CFR 10).
- DOD American Indian and Alaska Native Policy Memorandum, 20 October 1998.
- Presidential Memorandum for Heads of Executive Departments and Agencies,
 Government-to-Government Relations with Native American Tribal Governments, 29
 April 1994.
- EO 13175 Consultation and Coordination with Native American Tribal Governments
- EO 13287 Preserve America

The laws, regulations and executive orders are described in Appendix A.

The Army Alternate Procedures (AAP) to 36 CFR Part 800 are not currently in place at Fort Drum, and the installation will continue to follow Advisory Council of Historic Preservation regulations. For this purpose, Standard Operating Procedures (SOP) and Memoranda of Understanding (MOUs) have been updated and when necessary adjusted accordingly. The use of AAP is not compatible with current procedures and the operations of the Fort Drum Cultural Resources Team. A combination of annual review and reporting with ongoing consultation partnerships is currently more effective to support the Army's mission on this installation.

2.1.3 Integration of Natural and Cultural Resources

Both Natural and Cultural Resources fall under the Directorate of Public Works and close coordination is essential for mission success and to avoid possible ARPA or Section 106 violations. Natural Resources and Forestry actions are considered undertakings on federal lands and often require cultural resource compliance under Section 106 of the NHPA and NEPA consideration. Further to be considered in the cooperation between Cultural and Natural Resources is the Sikes Act, 16 USC 670a-670o, 74 Stat. 1052. This act provides for cooperation by the Departments of the Interior and Defense with State agencies in planning, development and maintenance of fish and wildlife resources on military reservations throughout the United States.

The 1998 Sikes Act Improvement Amendment provides for cooperation by the Departments of the Interior and Defense with State agencies in planning, development and maintenance of fish and wildlife resources on military reservations throughout the United States. This act legislates that military installations will develop and implement Integrated Natural Resources Management Plans (INRMPs) and that military departments may enter into cooperative agreements with States, local governments, non-governmental organizations, and individuals to provide for the maintenance and improvement of natural resources and/or to benefit natural and historical research on installations. The Sikes Act authorizes natural and cultural resources programs to enter into special "cooperative agreements" with non-Federal entities to accomplish work on installations.

Natural resources management activities that could result in Section 106 consultation within the following program areas include, but are not limited to:

Program Area	Type of Activity
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Environmental Remediation activities that involve building demolition

and earth excavation to remove contaminants, spill/hazard

response for soil removal (emergency Section 106).

Forestry Management Forest management, especially timber harvests

Wildlife Trapping In ground trapping arrays with ground disturbance

Soil Conservation Erosion control measures that alter original ground surface

Wetlands Management In ground water control systems, earthen dams or mound

features, creation of wetlands mitigation sites

Other Construction of pedestrian trails

2.1.4 Coordination

Aside from Natural Resources Management, the Fort Drum CRM coordinates with a number of agencies both internal as well as external. The agencies listed below most commonly work with Cultural Resources management and are part of the Fort Drum Garrison.

Range Division

Close coordination with Range Division is essential for a successful CRP. Range Division hosts the Integrated Training Area Management (ITAM) Program which includes Land Rehabilitation and Maintenance (LRAM). Maintenance of military land may require ground disturbance so the CRP needs to be responsive and supportive of ITAM and LRAM annual work plans. In addition, these programs offer assets for site protection projects and solutions. An effective CRP pays attention to changing patterns of military training across the installation and stands ready to support requests for training area access. In addition, conscientious range coordination keeps the field crew members safe in the field at all times. Range Division also provides EOD services and are to be contacted if unexploded ordnance is found.

Public Affairs Office (PAO)

Outreach events hosted on Fort Drum by the Cultural Resources team are advertised and organized by PAO, who is in charge of vetting any outside non-DOD visitors, coordinating transportation and providing advertisement.

Protocol

The new office of the Cultural Resources Manager is located in a historic structure that has traditionally been used to host distinguished guests and events, such as Promotion Ceremonies, Change of Command, Holiday Parties and Hails and Farewells. As Protocol oversees such functions, close coordination and a good working relationship are essential for mission success. The CRP also relies on the Protocol Office for critical support during Native American Head of State visits.

Staff Judge Advocate (JAG)

The JAG team can play an integral part in Cultural Resources Management, assisting in enforcement of federal laws, regulations and statues. JAG is the judiciary authority on Fort Drum and any legal actions regardless of their nature involving Fort Drum Agencies and personnel has to be approved by members of the Fort Drum administrative law community.

10th Mountain Division and Fort Drum Museum

The Cultural Resources team has been working closely with the 10th Mountain Division Museum Director to improve and expand military training involving cultural resources and protection of said resources. Additionally, the museum has exhibition space at the Cultural Resources facility in the LeRay Mansion.

10th Mountain Division (LI)

The CRP has established a robust partnership with the 10th Mountain Division (LI), especially in the areas of G9 Civil Affairs and Information Operations. The Program also works directly with exercise scenario writers to try to maximize incorporation of cultural resources into realistic scenarios. The program provides information to the non-lethal target lists for exercises and offers role playing assets, and use of the LeRay Mansion as a setting for key leader engagements. It is the expectation that the Division will continue to maintain its high standards for respect for cultural property at "Host Nation Fort Drum" as well as during deployment.

2.2 Management Actions

This section summarizes the specific actions required to manage the cultural resources under the stewardship of Fort Drum Cultural Resources over the past five years and for the next five years. Cultural resources actions can include initiation or continuation of consultation with other entities not related to a specific project, GIS cultural resource layer development, development of a cultural resources training and awareness program for military, ongoing CRM training, development of agreement documents, and fulfillment of federal curation requirements.

2.2.1 Summary and Results of the 2011-2015 ICRMP

The goals set in the previous plan were to comply with Army standards, the Installation Status Report and the Environmental Division of the Fort Drum Directorate of Public Works. Further, the CRM team's goal was to maintain a management program that is proactively identifying and protecting resources in its effort to support the mission.

2.2.2 Goals and Objectives for 2021-2025 ICRMP

The goal of this revision of the Fort Drum ICRMP is to ensure compliance with current federal and state regulations while supporting the Army's mission. Other program plans have been consulted and taken into account to guarantee that this ICRMP revision does not interfere with any existing plans and will not contradict efforts by other entities.

Fort Drum Cultural Resources Management will continue development of applicable geospatial data layers per Army requirements.

Fort Drum Cultural Resources Management will continue to fulfil requests from the surrounding community for additional outreach opportunities, such as tours of the ranges and the cantonment, and will continue to host visiting community partners for educational outreach.

Further, Fort Drum CRM continues to support the military mission through engagement in exercises and pre-deployment education.

2.3 Cultural Resources Compliance Actions

In addition to the management actions and installation-specific projects, this section outlines Section 106 compliance actions to be completed in support of projects to be completed using current military construction (MILCON) funding and listed sequentially based on MILCON priority. The CRM must develop projects and plans for the identification and protection of cultural resources and compliance actions needed when resources could be affected. Cultural resources compliance actions can include archaeological or historic building surveys, consultation with the SHPO, mitigation of adverse effects resulting from a project, initiation of tribal consultation related to a specific project, or development of agreement documents for a specific project. These projects might be necessary due to mission changes or master planning initiatives or might be a part of ITAM projects; natural resource management plans; major maintenance programs; changes in equipment, assets, mission, or training; and consolidating or relocating units.

It is important to note that another reason why Fort Drum finds it efficient to use an annual review and project specific consultation process is that the program has successfully established

major categories of projects where consultation is already complete. These major categories include:

- Undertakings within already developed areas of the new cantonment.
- Undertakings within previously established range perimeters.
- Undertakings within impact areas and areas where there is high likelihood for encountering unexploded ordnance.
- Improvements to all existing bridges on the installation.

In addition, Fort Drum has completed survey in a series of major classes of archaeological sites including:

- Maple sugaring sites (David Babson, PhD, Syracuse University 2010)
- Dispersed Social Centers
- Rural Agricultural Industries
- Farmsteads

Major Project reviews that are ongoing or anticipated during the period of 2021-2025 include:

- Site data reassessment
- New Tank Trail and Bridges, TAs 7D & C Mobile Protected Firepower Motorpools and Bulk Fuel Point, TA 4A, Cantonment
- Timber harvests and Maneuver Corridors as determined by the Forestry Program and ITAM
- Known Distance Range, TAs 17A, 18A & B
- Scout RECCE Range, TA 19D
- Mission Training Center, Cantonment
- South Post Physical Fitness Center, Cantonment
- Automated Infantry Platoon Battle Course, TAs 15 C & E, 16A
- NAF Field House, Cantonment
- Possible Ice Arena, Cantonment
- Replacement of Water Lines, Cantonment
- Restoration of Contributing Structures in the LeRay Mansion Historic District

- Development of Recreational Opportunities within the LeRay Mansion Historic District and Historic LeRaysville
- Continued partnership with the three Nations to recover any prehistoric artifacts or ancestors that may have been removed from Fort Drum land illegally.
- Establishment of environmental documentation for aviation training.
- Continued outreach programming.

2.4 NAGPRA Cultural Affiliation Report

Cultural Resources are defined by Section 2 of the NAGPRA and 43 CFR 10.2(d) as human remains and funerary objects, sacred objects and objects of cultural patrimony that are related to a Tribe, people, or culture indigenous to the United States. Human remains are defined as the physical remains of an individual of Native American ancestry; this term does not include those portions that may have been freely given or naturally shed by an individual, e.g. hair used for making other objects. Funerary objects include items that were placed intentionally at the time of death or later with or near the human remains. This category is further subdivided into associated funerary objects (both the item and associated human remains are in possession of the museum or federal agency) and unassociated funerary objects (the human remains associated with the item are not in possession of the museum or federal agency). The term "sacred objects" includes specific ceremonial items that are needed by traditional Native American religious leaders during the practice of traditional Native American religions by present-day adherents. Objects of cultural patrimony are items that have ongoing historical, traditional or cultural importance central to the Tribe and cannot be owned or conveyed by any individual member of that Tribe.

"Cultural affiliation" means that there is a relationship of shared group identity which can be reasonably traced historically or prehistorically between a present-day Indian tribe and an identifiable earlier group. Fort Drum completed its NAGPRA artifact inventory in 1996 with assistance of the US Army Corps of Engineers (USACE) St. Louis District Curation Center of Excellence and completed NAGPRA responsibilities by sending Section Six NAGPRA letters to all of the Indian Nations with potential ancestral relationships to Fort Drum.

2.5 Native American Consultation

The DOD recognizes that Indian Nations are autonomous communities with sovereignty over lands retained. They follow treaty law, meaning the Nations retain everything that they did not expressively give up in a treaty with the federal government, regardless of the age or non-use of the treaty. As a result, and to follow federal laws, regulations and statutes, Cultural Resources should consult with culturally affiliated tribes on undertakings and any potential issues early and often. The federal government has a duty to ensure that the interest of the tribes is protected and respected. Interests that are relevant to Cultural Resources include but might not be limited to human remains and other NAGPRA cultural items, traditional cultural properties and archaeological resources, sacred sites, and partial hunting and fishing rights on traditional treaty reserved lands.

Fort Drum has established ongoing consultation partnerships at both the government to government and staff to staff level with the Oneida Indian Nation, the Onondaga Nation, and the St. Regis Mohawk Tribe and values these relationships as critical for the responsible management of the ancestral places found on Fort Drum. The Cultural Resources Manager is in regular direct contact with Nation representatives and the nature of the relationship between the affiliated tribes and Fort Drum CRP is mutually advantageous while respectful of laws and regulations. The CRM is the Garrison Commander's designated coordinator for Native American Affairs. The Fort Drum CRP follows DoDI 4710.02 directives and the Trust Responsibility set forth in the directive by:

- Building stable and enduring relationships with tribes
- Fully integrating the principle and practice of meaningful consultation and communication with Indian Nations including staff officers at the installation level
- Following Head of State Protocol for official Nation visits
- Protecting natural and cultural resources to which tribes ascribe traditional or customary religious or cultural importance

The following executive order provides regulations on access and management of Traditional Cultural spaces and sacred sites and is conscientiously followed at Fort Drum:

EO 13007 - Indian Sacred Sites: Requires executive agencies with administrative responsibility of federal land management to accommodate access to and ceremonial use of Indian sacred sites and avoid adversely affecting the physical integrity of sacred sites.

Fort Drum has a signed inadvertent discovery agreement with the Oneida Indian Nation, and MG Oates signed a letter to the Onondaga Nation offering the opportunity to inter repatriated remains into appropriate areas of the Haudenosaunee Village site on Fort Drum. Fort Drum will honor these promises in perpetuity.

2.6 Section 106, Stakeholders and Outreach

The Fort Drum Cultural Resources Program views outreach and education as integral to successful management and stewardship of the installation's cultural resources. Over the past twenty years, Fort Drum CRP has managed over a billion dollars of construction with successful site avoidance strategies. The secret was education. The CRM worked with the engineers, planners, and designers explaining the value of the sites and the value of early cooperation for design avoidance. Fort Drum is also in the situation where the CRP manages property taken by eminent domain. As a result, there are living families with extremely strong ties to the cultural resources, including buried ancestors. A CRP goal is to offer as much access as possible along with thoughtful interpretation. The CRP reaches out to these families, and they provide extremely valuable perspectives on the history of installation lands, informing management decision making. Family stakeholders provided the incentive to transform the historic villages into training opportunities. "You know, we gave up our homes for training, not for archaeology, and last time I checked, we were at war."

The Conservation Program which includes both Natural and Cultural Resources became the occupant of the LeRay Mansion Historic District in September 2018, dramatically increasing opportunities for responsible stewardship. In addition to empowering the program to manage the structures and grounds to meet Secretary of Interior Standards, the physical presence of the CRP has enabled access to the District with a philosophy that all are welcome. The Mansion is open daily for tours, can be booked for events, and the CRP has been developing outreach opportunities to encourage increased visitation including events like "Beautify LeRay," "Haunted LeRay,"

"Historic LeRay Open House," and an outdoor concert series. The increased access for all to a property that had been inaccessible to most for over sixty years has been enthusiastically received by members of the Fort Drum community and beyond. The CRP staff endeavors to use all events as educational opportunities, offering guided tours and even developing holiday decorations with educational themes. The Historic District and Mansion is also a training asset and offers scenarios ranging from how to set up a protective perimeter on an archaeological site to an elegant setting for Key Leader Engagements.

The CRP proactively partners with the 10th Mountain Division and Fort Drum Museum. The Mansion hosts 10th Mountain exhibits, and the Museum includes objects and interpretation featuring cultural resources and telling the story of Fort Drum through time.

2.7 Cultural Landscape Approach

Cultural resources constitute significant elements of the ecosystems in which Army installations exist and function. As such, project planning and cultural resources management should occur within the context of a comprehensive and integrated approach that adapts and applies the principles of ecosystem management, i.e. the cultural landscape management approach. Adapted from the NPS Preservation Brief No. 36, Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes, a cultural landscape is defined as a geographic area that includes the collective cultural and natural features and the spatial relationship among these features, both surface and subsurface (Birnbaum 1994). Examples of natural features include terrain, habitat areas, and topography. Cultural features include archaeological sites, sacred sites and TCPs, historical architectural resources, and the modern built environment, to include all associated infrastructure (above and below ground). All of these natural and man-made features, including those related to military operations, are viewed as a series of surface and subsurface features that comprise the installation's cultural landscape.

The development and implementation of a cultural landscape approach to the management of installation resources is integral to a successful cultural resources management program and is required by AR 200-1. Fort Drum CRP has been managing its program utilizing a cultural landscape approach for over twenty years.

The cultural landscape management approach:

- 1. Analyzes the spatial relationships among all cultural resources within their natural setting. Cultural and natural resources distribution maps can provide the data for systematic analysis of spatial patterning and land use through time. Natural factors, such as elevation, slope, soil texture and drainage, vegetation, and distance to water, and cultural factors, such as proximity to roads, navigable waterways, other transportation routes, and service centers, have resulted in non-random patterns of human use through time, indicating that these factors have influenced the locations selected for prehistoric and historic settlement and activity areas.
- 2. Serves as an organizing principle to record the landscape in a manner that incorporates the complexity of human cultural interaction with the natural terrain through time. Military installations are treated as an integral entity with interrelationships existing among the natural and cultural resources present. Military operations are treated as only one, albeit one of the most significant, of a number of human cultural activities that have influenced the installation's current cultural landscape. The intent of this approach is to fully integrate cultural resources management with military training and operational support activities. Analyzing the spatial distribution of cultural and natural resources locations with areas of military training activities has shown that the location of cultural and natural resources does coincide with military training and operational support activities, which is important for land management.
- 3. Recognizes that cultural resources may be present on an installation due to, or may even be a result of, continuous military occupation and use of the land. Landscapes on any Army installation have been affected to some degree by human activity. Prehistoric and historic archaeological resources, historical architectural resources (i.e. buildings, structures, and objects), sacred sites and TCPs, critical habitat for endangered species, wetlands, riparian areas, and other components of the ecosystem have been influenced, maintained, or created by prehistoric and historic populations, as well as modern military use of the land. All of these natural and man-made features, including those related to military operations, are viewed as a series of surface and subsurface features that make up the installation's cultural landscape.
- 4. Notes that at Fort Drum, the potential for ceremonial stone landscapes and the potential presence of features built of stone by indigenous people is taken very seriously. Fort Drum field crews are instructed to watch for and document stone features during the course of field survey,

and these features are being added to the installation's cultural resource maps. Fort Drum is considered a leader in the identification and documentation of indigenous ceremonial stone landscapes in northeastern North America.

- 5. Acknowledges that the installation's cultural landscape is unique, as no other landscapes in this nation have evolved from continued use for defense-related purposes; therefore, natural and cultural resources located on an installation may not only result from, but may also gain significance, through the continuous military occupation and use of the land.
- 7. Is most useful as an overall conservation planning strategy that fully integrates cultural and natural resources with the military mission.

The most important aspect for cultural landscape management approach is the development of a historic context for the installation. The use of GIS is vital for this approach.

2.7.1 GIS

At this time Fort Drum Cultural Resources uses ArcGIS, the Environmental Systems Research Institute (ESRI) GIS software platform to create, update, and manage relevant cultural resources related spatial data, including but not limited to survey areas, site locations and installation-specific spatial data. The data is maintained in a geospatial database and accessible to CRM personnel; however, it is updated by the Environmental Division Geospatial Data Manager. The data is updated as new information becomes available.

The responsibility of the CRM in regard to GIS are

- Serves as the Functional Subject Matter Expert (FSME) for all applicable Army
 geospatial data layers within the Fort Drum geospatial data repository. In this capacity
 completes, at a minimum, an annual review of each applicable geospatial data layer for
 completeness and accuracy.
- Assure that the cultural resources data are current and are available in the Environmental
 Division Geospatial Database of Record (GDBR). This will include all new site and
 survey data for the purpose of generating maps as requested for official use and for
 inclusion in annual reports.

 Use the GIS system to help determine current and future mission impacts to cultural resources and communicate this information to appropriate installation offices. This information will be used to plan for resource avoidance where possible, and survey or mitigation if necessary.

2.7.2 GIS, Cultural Resources and Monuments

With guidance from the Army Installation Geospatial Information & Services (IGI&S) system, the Fort Drum CRP has accepted responsibility for tracking of all monuments on the Installation. The program endeavors to maintain an up to date database on the locations and status of these features, even as the soldiers keep moving them. The Cultural Resources Manager and the Environmental Division Geospatial Data Manager also serve as consultants to the installation Memorial Board, and the CRP maintains the Fort Drum Monuments archive.

CHAPTER THREE: PLANNING LEVEL SURVEY

This chapter identifies the range and type of known cultural resources on Fort Drum-managed lands, and summarizes the reports, cultural context and other documentation of these resources. The information provided is intended to be used as the Planning Level Survey (PLS) and aims to establish the potential for discovery of additional cultural resources at the installation. The PLS is a comprehensive planning tool that identifies the status of knowledge of documented resources and identifies the need for additional information, essentially it is an operationalization of the Cultural Landscape Approach. The integration of this data with all activities necessary to support Fort Drum's mission allows the CRM to efficiently prioritize cultural resources management efforts to enable future mission activities, meet data needs, identify areas of concern, and ultimately fulfill the requirement of cultural resource-related legislation. Appendix B provides a list of cultural resources as identified so far. The inventory of archaeological sites and historic buildings is continuously changing as new resources are identified. Fort Drum has identified three sacred sites and studies are ongoing.

Cultural resources are the remnants of past human activities that have cultural or historical value and meaning to a group of people or a society. Cultural resource-related legislation uses differing terminology and definitions when referencing cultural resources. For the purposes of this ICRMP, the term "cultural resources" includes historic properties, as defined in the NHPA; archaeological resources, as defined in the ARPA; cultural items, as defined in the NAGPRA; sacred sites, as defined in EO 13007; and collections, as defined in 36 CFR 79.

As defined in Section 301 of the NHPA and 36 CFR 800.16(l)(1), a historic property is any prehistoric or historic site, building, structure, object, or district that is included in, or is eligible for inclusion in, the NRHP. All artifacts, records, and material remains related to the historic property are included in the term.

For the purposes of educating military personnel concerning cultural property protection during overseas deployments, cultural property includes all of the items as defined above in addition to the concept of cultural property as defined in the 1954 Hague Convention for the Protection of Cultural Property in the event of Armed Conflict, ratified by the US in 2009. Additional guidance can be found in the US Central Command Environmental Regulation 200-2, Chapter

Six, and the Overseas Environmental Baseline Guidance Document Conservation Guidance (OEBGD), Chapter Four.

3.1 Cultural Contexts of Fort Drum

Pre-History

For decades, archaeologists have assigned their own names and attributions to evidence of past human occupation including phases that occur on Fort Drum. It is important as we consider discussion of the past as described below that we remember ultimately we are attempting to define and describe human occupation over the course of thousands of years and that the descendants of the ancestors have a unique relationship with Fort Drum lands and the ancestral places. Salli M. Kawennotakie Benedict of Akwesasne has eloquently described this relationship. "When we say "time immemorial," we assert that our use, occupation, and fundamental relationship with this area known as Akwesane, as well as our memories of kinship lines, goes beyond our earliest collective memories. The long time relationship that we have with this ancient region is one that we convey as kinship to the land and to the ancestors before us that were born of this land" (Kawennotakie Benedict, 2007 "Made in Akwesasne" in *Archaeology of the Iroquois, Selected Readings*, Jordan Kerber, ed., page 424).

Pre-Clovis

The dates for the arrival of the first Americans in the Northeast are becoming earlier and earlier, including dates of more than 15,000 B.P. at Meadowcroft in nearby Pennsylvania. Once controversial, sites like Meadowcroft are beginning to produce assemblages that hope to characterize early Paleoindian or pre-Clovis horizons in the Northeast and, equally, they have the potential to demonstrate settlement patterns continentally.

The 1999 Fort Drum cultural resource survey recovered a single artifact from site FDP 1146 that has the potential of representing a pre-fluted projectile point horizon. A residual core found in the second and third glacial interface was submitted to the Holland Lithic Laboratory for analysis and was determined to be a bipolar quartzite core. This discovery is significant for two reasons. First, quartzite blades seem to be an important component of pre-Clovis sites. Second, although

found in a surface context, two fluted projectile points were recovered well above the glacial interface in a landform identical to the one where the core was discovered. As a result, there is a possibility that the core could predate Clovis context materials on Fort Drum.

Paleoindian Period (13500 B.P. - 8000 B.P.)

Approximately fifteen thousand years ago, Canada and the northern half of the United States were covered in sheets of ice. By 13500 B.P., the ice had begun to melt. The retreat of the ice sheets dumped millions of gallons of melt water across New York State, changing the landscape forever. Icebergs and glacial debris dammed valleys and formed large glacial lakes.

Many forms of wildlife including mastodon, caribou, wolf, moose, bear and mammoth lived in this changing land. With the reemerging wildlife came the foragers, commonly referred to by archaeologists as Paleoindians. Paleoindian culture in the Northeast United States is characteristically recognized as spanning from approximately 13500 B.p. until 9000 B.P., except in the St. Lawrence Valley where Paleoindian occupation continued until approximately 8000 B.P.

Archeologists use the fluted or grooved projectile point as an indicator of the presence of Paleoindian people. The recovery of a fluted point, knife, and other stone tools strongly indicate that the Fort Drum area was occupied by hunting and gathering parties in the Paleoindian period. Evidence has shown that Paleoindians relied mainly upon their superior hunting skills. The presence of Paleo-Indian cultural material on sand dunes that were once the beaches of glacial lakes indicates that these people may have built and used boats. They may also have developed sophisticated ways of harvesting water-fowl and fish (Wagner, 2007).

Two components of the Paleoindian tradition are represented on the Fort Drum Military Installation. The earliest component of this complex is FDP 1025, located in TA 5B along a relict shoreline of Glacial Lake Iroquois. The assemblage includes a fluted point that is constructed of Ft. Anne Normanskill chert identified by the late Dennis Stanford as a Barnes type without the characteristic fishtail. Further analysis of the point and associated assemblage by Dr. Jon Lothrop and colleagues at the New York State Museum revealed that the point was created and discarded on site and that additional fluted points were made at the same location. Fort Drum is

currently partnering with the New York State Museum for further research into the Paleo time period on Fort Drum.

Discoveries during the 2004 field season also support the possibility of very early maritime technology on Fort Drum. First, an unusual artifact assemblage from FDP 1208, located along an ancient beach landform in TA 4A, is consistent with tools having been used for boat building and repair. Recovery of early tools from landforms that would have been islands in the glacial lake, now Training Areas 17C and D, complement the other glacial lake landform assemblages.

Later phases of PaleoIndian occupation occur along the Black River bluffs and sand dunes of Training Area 6.

Archaic and Transitional Complex

William Ritchie (1965) originally placed the Archaic stage in New York between 6500 B.P. and 3300 B.P. However, more recent research yielding dates for typical Archaic projectile points produced consistent dates of ca. 8300–8200 B.P. which correspond well to two archaic hearths at Fort Drum located at the FDH 512/FDP 1198 site in Training Area 7B. The site is located along a relict river that links the Saint Lawrence and Black River Valleys. Broken adze bits found in and around the two hearths may suggest a maritime adaptation in later Paleoindian contexts or may simply be a continuation of long-established maritime traditions.

The Fort Drum Cultural Resource Survey of past years has identified Archaic projectile points from throughout the installation, usually as isolated surface finds. Only two sites that produced Archaic-period points yielded associated features, including a Genesee Stemmed projectile point recovered near a circular fire-cracked rock feature at FDP 1150. Additional sites in the vicinity were identified during survey in anticipation of forestry management activities in TA 5E and the Field Ammunition Supply Point. All of these sites will be protected in place during the course of these activities.

Archaic traditions in New York State are chronologically and typologically undefined. A clearer view of the Archaic-period landscape of northeastern North America has begun to emerge in recent years. Research is ongoing to adequately understand temporal and spatial placements during this long phase of prehistory, and the Fort Drum CRP is well positioned to contribute to this new knowledge.

Early and Middle Woodland Complex

The vast scope of Early and Middle Woodland sites on the Fort Drum Military Installation, compared to the dearth of similar sites in other Eastern Woodland regions, provides tremendous opportunity to begin synthesizing settlement and subsistence patterns and to augment the temporal taxonomies of these cultural horizons.

Between approximately 3500 B.P. and 1400 B.P., highly complex hunting and gathering cultures occupied the Great Lakes Region and river valleys of the Northeast and Midwest. It is highly likely that they radiate out from the Mound Building civilizations of the Mississippi Valley, and some stone artifacts recovered from their occupations on Fort Drum show origins in quarries of Ohio and West Virginia. Variations in their material culture, especially projectile points, have led scholars to surmise that Early Woodland culture pan-regionally comprised fairly distinct autonomous groups, although archaeologists sometimes refer to the ancient people from this time period as the Meadowood Tradition.

The majority of Early and Middle Woodland archeological investigations in the Northeast and Midwest have been burial components, which radiate around the Great Lakes Region and its attendant river systems, clustering in religious/ceremonial centers. One key aspect of many of the burials from this time period was the use of red ochre, a powder made of ground hematite sprinkled over the bodies of the dead. On Fort Drum, traces of red ochre have been identified in the sands of TA 5D, although not in association with any materials that would confirm a burial context. However, the Fort Drum CRP needs to be cognizant of Red Ochre Culture trait characteristics so that any potential sensitivity for burials can be readily identified in the field. Just south of the ochre feature, site FDP 1151, also referred to as "The Calendar Site" is one of Fort Drum's sacred sites and has been identified by elders of the St. Regis Mohawk Tribe as marking out the Mohawk Lunar Year. C-14 dates taken from fire cracked rock features at this site range from 3500 B.P. to 1100 B.P.

Fort Drum also has the potential to contribute to knowledge of domestic occupation dating to the Early and Middle Woodland time periods. The character of Fort Drum's FDP 1093 site offers an example where proto-ceramic fired clay features and a hearth with C-14 dates of 1930 +/-40 B.P. were found in association with a structure approximately 5m in diameter with an offset opening. The addition of an Adena effigy face to the collection from FDP 1, one of the

Haudenosaunee Village sites, and the presence of Point Peninsula pottery in association with the Black River bluffs mean that Fort Drum occupations also have the potential to yield information contributing to our knowledge of continuity in prehistoric occupation throughout the Northeast and Great Lakes.

Point Peninsula Culture

The Meadowood tradition gradually gave way to what archaeologists refer to as the Point Peninsula culture in the Fort Drum area. Point Peninsula people continued the trend toward more elaborate grave offerings, as well as increasingly complex pottery decoration. They also continued to occupy locations contiguous with navigable waterways. The Point Peninsula culture created unique pottery designs influenced by the Hopewell people who inhabited the Ohio and Illinois Valleys. This period also saw the introduction of pipe smoking as an integral part of ritual and everyday practice. It is during this time period that we begin to see a shift toward subsistence agriculture, and FDP 1093 yielded a metate or grinding stone that had been used to make flour from Chenopodium or goosefoot seeds.

By the Late Woodland period, reliance on agriculture had increased. The agricultural fields adjacent to villages began to become a permanent feature of the landscape as domesticated flora became a staple food source. Prime agricultural lands in proximity to village sites were sought out for cultivation. As agricultural technology increased, so did the production of surplus food and the ability to store food for the winter. With this agricultural success, it was possible to sustain a village community year-round. Villages became larger and more heavily populated.

Typical Haudenosaunee Occupation

Haudenosaunee people inhabited a large number of villages in the Jefferson County area, including villages in what is now Fort Drum, and their village sites are distinguished by the evidence of long house structures and palisades or earthworks surrounding the village. The extra protection afforded by earthworks may have been defensive but also could simply have been designed to protect the villagers and food supplies from wild animals. The Haudenosaunee people living in the Fort Drum region have been referred to in the archaeological record as a

separate group called St. Lawrence Iroquoians, but given the pejorative origin of the term Iroquoian, the Fort Drum CRP refers to them as Haudenosaunee.

The village longhouses were similar to those built by other contemporary Haudensaunee people. Longhouses were oval in shape and usually 20 to 30 m long and 6 to 8 m wide and housed multiple families related through a matriarch. A number of central hearths were used for cooking and warmth. Pits dug through the floor were used for storage of corn and personal belongings.

A striking cultural development of the late prehistoric era was the intensive cultivation of maize (Indian corn), squash, and beans. The rise in agriculture was accompanied by the "slash and burn" system, where forested land was burnt and cleared in order to make room for crops and fertilize soils. Hunting, fishing, and gathering of wild plants continued to be important. Remnants of one fortified Haudenosaunee village are protected on Fort Drum, and research indicates that there may also be a second village site located within the cantonment perimeter.

In 1534, when Jacques Cartier explored the St. Lawrence River Valley, he encountered Haudenosaunee people, who some archaeologists refer to as St. Lawrence Iroquoians, along the way. Sixty years later, when Samuel de Champlain traveled the same route, he found the villages abandoned and the people gone. Whether they fell prey to European diseases, were wiped out in wars with their neighbors, or simply shifted their villages away from the region, or some combination of the three, is unknown. Many archaeologists currently believe that by the late sixteenth century, the group of Haudenosaunee people who lived in the Fort Drum region no longer existed as a distinct people. However, their descendants did continue to live in the region as evidenced by reports of village communities in the Ashland area of the Town of Lyme, Perch Lake, and Evans Mills. During the course of collecting oral histories, the Fort Drum Cultural Resources Program has learned that Indian families continued to live, hunt and fish on Fort Drum until 1940 when they had to leave with everyone else.

European and Native American Contact Period (1540 CE – 1799 CE)

The first encounters in the Fort Drum region between Native American governments, societies, and residents and European explorers, missionaries, and settlers are grouped under the context of the Contact period. This period ranges from the mid-sixteenth century (ca. 1540), following the abandonment of the fortified settlement at Camp Drum 1, until the Treaty of Canandaigua

opened the area for Euro-American land speculation and settlement after 1797. To date, direct evidence of one Contact-period site has been found on Fort Drum, featuring significant artifacts, namely a French gunflint and glass trade beads. Little is known about French contact in Northern New York between the years 1534 to 1603, meaning that the site on Fort Drum could write an important chapter in the archaeology of New York State and the history of the nation. Opportunities for contact in the Fort Drum area came with Jesuit missionaries and French fur traders, although no direct mention of contact within the Fort Drum boundaries has yet been discovered in maps or in archival documents.

Archival research in the form of General DeLery's journal of the French expeditionary attack on Fort Bull located in central New York indicates that French forces may have camped in the cantonment area of Fort Drum on March 19, 1756, and it is possible that French gunflints recovered from the vicinity of Remington Park and Bedlam Road could be related to this event.

Several sites on Fort Drum could be classified as multi-component sites. This term simply means that people have inhabited the same area of land at various times throughout history. Fort Drum's Contact-period site is a good example of a multi-component site. In 2002, field crews unearthed the 8000- year-old hearths and post molds next to artifacts and hemlock structural remains dating to the 1670s. Later, this site became the home and farm of the Ford family until the land was bought by the federal government in the 1920s.

Finding additional Contact-period and multi-component archaeological sites remains an exciting possibility for future training and cantonment area archaeological surveys.

Euro-American Settlement, James LeRay de Chaumont and the LeRay Mansion

Few attempts were made to settle Northern New York until the end of the Revolutionary War. At the close of the War for Independence, Haudenosaunee Nations entered into treaties that resulted in the State of New York claiming their lands. Treaties involving Fort Drum land were executed prior to ratification of the US Constitution, and the NYS Supreme Court will not rule against New York State in these matters, so there are currently no Fort Drum lands subject to treaty claims. After these treaties, most notably the Treaty of Canandaigua, Europeans initiated land speculation throughout the region and hoped to encourage European settlement. One of these investors was James LeRay de Chaumont, son of Jacques Donatien LeRay de Chaumont,

personal friend of Benjamin Franklin and key negotiator and supporter of the French alliance with the Patriots during the American Revolution.

In 1799, Jacques sent James to address the US Congress concerning debts owed by the Americans to his family. When it became clear that the LeRay family fortune would not be recovered from the Continental Congress, James invested in the lands becoming available in Northern New York. Out of the hundreds of thousands of acres, he selected 200 for his personal estate. These lands were adjacent to a mill seat, Brown's Mill, established by Benjamin Brown, brother of General Jacob Brown, founder of the Village of Brownville. LeRay changed the name of this small village to LeRaysville and the mill pond became St. James Lake.

There are many details in dispute concerning the history of the estate and its buildings, but as of 2020, the current chronology follows. The first Mansion was constructed on the edge of the hill looking over LeRaysville ca 1806. Several of the four standing outbuildings were probably also constructed at about this same time. The first Mansion burned in 1820 and may have been rebuilt in its original location shortly after the fire. In 1826, Vincent, James' son, ordered the first rebuilt Mansion to be torn down and replaced by the current Mansion.

After James' death in 1840, the property passed through many hands. After Mabel and Fred Anderson lost the property during the Great Depression in 1936, the mansion was sold to Harold and Margaret Remington at auction. The Remington's were responsible for much of the restoration and preservation of the mansion prior to the federal government acquiring the property in 1940. The LeRay Mansion district was placed on the National Register of Historic Places in 1974. The LeRay Mansion was used as distinguished visitors' quarters for the Fort Drum Military Installation until September 2018. Now it houses the Cultural Resources Management offices, and the outbuildings are being converted to house the CRP field crew and equipment. The caretaker's cottage is the Natural Resources Managements outreach facility and will allow for closer cooperation between the two branches of the Environmental Division Conservation Program. Combined conservation efforts include development of formal gardens, nature and ski trails, and establishment of a maple sugaring shack for the annual spring "Maple Days" outreach program. The CRP is working to encourage increased use of the Mansion and its grounds for visitation, tours and special events.

European Settlement Historic Contexts

Farmsteads (1800-1940)

This context features the architectural (foundation) and archeological remains of Fort Drum farmsteads, the foci of family residence and farm production for a majority of the region's residents during this period. Over 350 family farms were lost when Fort Drum expanded via eminent domain in the 1940s. This context is considered to be mitigated as a result of extensive archaeological excavation and research resulting in a memorandum of agreement between Fort Drum and the New York State Historic Preservation Office (SHPO). A copy of this letter can be found in Appendix E.

Dispersed Agricultural Processing Industries (1800-1940)

These sites are related to industries intended to process agricultural and natural resource products, located outside of nucleated village settlements on the Fort Drum lands. Property types for agricultural products processing include: gristmills, cheese factories, butter factories or creameries, cider mills, carding mills, fulling mills, tanneries, slaughterhouses, maple sugar processing sites, stills, sawmills, cheese box mills, planing mills, paper mills, axe helve factories, mineral extraction industries, toll houses and blacksmith shops. From 1998 to 2001, this context was one of two, along with Dispersed Social Centers, investigated at the Phase I level by the Fort Drum CRS with a goal of achieving the most complete inventory possible for these types of sites. The inventory information is used to make the most informed possible decisions concerning their management.

Rural Villages (1800-1940)

In 1940, five villages were taken via eminent domain, they included LeRaysville, Woods Mill, Lewisburg, Sterlingville and Alpina. The latter three originated with economies based on the iron furnace industry. The remains of these villages including foundation features are National Register Listed Archaeological Districts and are managed as historic area training assets with pedestrian use only and no ground disturbance permitted. Numerous cross roads and hamlet communities were also taken including North Wilna, Nauvoo, Braman's Mill, Reedville, and Gates Corners. Remains of these communities are documented as components of the Dispersed Social Centers context.

Dispersed Social Centers (1800-1940)

These centers include architectural and archeological remains from centers of non-farm and extra-family social activity located in completely rural areas outside the recognized boundaries

of villages and created to facilitate and express the social lives of area residents. Property types include schools, churches, cemeteries, taverns, hotels, post offices, and rural stores.

Northern New York Iron Industry (1830-1885)

This specialized context covers the three blast furnaces Lewisburg/Sterlingbush, Sterlingville and Alpina constructed in the region during the 1830s to exploit local deposits of iron ore and operated sporadically until the early 1880s. Also covered are ancillary structures and facilities, like the limekilns, a component of the Quarry Pond site, FDH 1074, that supplied lime flux to the Lewisburg and Alpina Furnaces. Iron furnace sites are associated with rural villages although Alpina mostly consisted of a boarding house and a black smith shop. This context is considered mitigated through HABS/HAER documentation completed by Louis Berger and Associates.

Fort Drum Cemeteries

Thirteen historic cemeteries fall within the installation perimeter of Fort Drum. Eleven of these cemeteries still technically belong to cemetery associations or municipalities, and two belong to the US Army. The first of these is the Grave of Clotilde de Gouvello, granddaughter of James LeRay de Chaumont who was born and died on the estate at the age of 15 months and the second is a World War II Prisoner of War Cemetery. The POW Cemetery is considered to be an official US Army Cemetery and is managed to National Shrine standards. The POW Cemetery responsible official is the Cultural Resources Manager. The Fort Drum CRP in partnership with Range Control and Roads and Grounds maintains the historic cemeteries, answers genealogical questions, and has established a comprehensive data base of the interments in the thirteen cemeteries so that all of the graves can be accessed on line. Fort Drum ceases all training on Memorial Day and Labor Day and opens all of the cemeteries for personal visitation including one now located in the impact area.

3.2 Prehistoric Sensitivity Model

Application of the cultural landscape approach on Fort Drum resulted in development of the Glacial Lake prehistoric sensitivity model. This informal model integrates existing geological and palaeoclimatological information to create a map identifying ancient shorelines, islands and tributaries using elevation data and entered into GIS. In addition, waterbodies above the lake shorelines were buffered by 100 m to identify water sources that may have attracted prehistoric

inhabitants of the installation area. Once defined, these landscape features were identified as being of high sensitivity. Areas of the Pine Plains including the cantonment and airfield that were not defined as high sensitivity according to the above rules were defined as medium sensitivity since the Pine Plains area is considered to have been a primary zone of occupation during the prehistoric period and is identified in contact period maps as the portage between the Black River and Indian River navigable waterways. In the Lake Plains zone, by contrast, the medium-sensitivity zone was restricted to locations within 100 m of stream banks. Remaining areas in the Lake Plains and Alluvial Flood Plain not defined as medium or high sensitivity according to the above rules were classed as low sensitivity.

In the early 2000s, the program sponsored development of an Adirondack Lowlands prehistoric predictive model as part of a Master's Thesis (Amy Wood, Leicester, UK). This model used waterways, least cost pathway terrain analysis, prevailing wind patterns, slope, archival maps and indigenous place names to establish areas in this region of rugged terrain to suggest ancient pathways and site locations. Testing of the model led the survey team to additional landforms which were also subjected to testing. Areas of highest sensitivity shared the characteristics of being the nearest place out of the wind to where it was easy to pull a small boat ashore. Overall, use of the model led to increased site discovery in training areas 18 and 19.

Management decisions concerning requirements for large scale archaeological survey including testing interval are based on prehistoric sensitivity combined with mission requirements and nature of the proposed undertaking.

3.3 Archaeological Inventory

Total number of sites as of completion date of this ICRMP derived from the site database and including those identified in 2019 is 927.

This number is subject to change as reassessment of prior site data is performed. Due to inaccuracies in older data, some site points in GIS are incorrect. This problem has led to double numbering of sites as they are "discovered" again and assigned a new site number. As a result of this double counting, the number of sites given is slightly higher than it should be. Site review and field reconnaissance is ongoing to remedy this situation. A detailed and updated inventory

of all important prehistoric and historic sites can be found in Appendix B, which will be updated annually.

3.4 Curation and Artifact Storage

Artifacts obtained during field excavations are cleaned, cataloged and curated on Fort Drum. The Fort Drum CRP provides curatorial services for artifacts found during surveys and excavations on Fort Drum dating back to 1986. All artifacts are cleaned, identified and curated according to current federal regulations as described in DOD 4715.16 and 36 CFR Part 79. Fort Drum CRP houses a curation facility fulfilling the requirements of 36 CRF Part 79 and houses artifacts and collections. 36 CRF Part 79 §79.4 defines collections as "material remains that are excavated or removed during survey, excavation or other study of a prehistoric or historic resource, and associated records that are prepared or assembled in connection with the survey, excavation or other study." Artifacts, objects, specimens and other physical evidence that are excavated or removed during the evaluation and study of a prehistoric or historic resource are kept in the Artifact Curation Facility (ACF) on Fort Drum for further study. The associated records are also kept at the ACF with the artifacts. These artifacts are available to qualified researchers with prior authorization and can be loaned out for periods of time.

The current Fort Drum CRM procedure for curation and storage of artifacts follows federal guidelines. Artifacts brought back from any archaeological survey are to be cleaned and stabilized as soon as possible upon return to the lab.

Once the artifacts are cleaned, documented and curated according to policy, they will be stored in acid free boxes or containers within the Artifact Curation Facility. Records are to be entered into the data base as well as kept as paper copies.

Chapter 4 SOP #14 describes the method to be used to curate artifacts.

3.5 Monitoring

3.5.1 Monitoring Ground Disturbing Undertakings

Any undertaking on Fort Drum that requires ground disturbance within an area determined to be archaeologically sensitive has to be monitored by the CRM or a designated team member,

including all ground disturbing undertakings in the LeRay Mansion Historic District. Both the dig permit and record of environmental consideration processes have the option of requiring a monitor in order to be approved.

3.5.2 Monitoring Protected Sites

The Cultural Resources Program maintains an up to date list of sites that are potentially eligible for the National Register. The list is updated within the Environmental Division Geospatial Database of Record regularly to ensure accuracy of data. The data associated with the locations includes the Fort Drum identifying numbers, NYSHPO site numbers where applicable, the nature of the site, the reason for eligibility, the size, and directions for finding the site. The applicable data layers will not be available to the public but allows the CRM to assess whether any monitoring is needed in an area scheduled for an undertaking or if it has been previously evaluated.

National Register eligible cultural properties on Fort Drum are placed off limits by order of the Garrison Commander. These properties are posted as such with the expectation that there will be either no pedestrian and/or vehicular incursions on these properties (including no access to recreational users). In some cases, training or pedestrian traffic may be allowed with the provision that no ground disturbance takes place. These sites are posted accordingly. However, environmental factors like erosion can cause protected properties to deteriorate as well. It is the responsibility of the cultural resources program to monitor designated and protected cultural properties on Fort Drum on at least an annual basis to determine their condition.

3.6 Real Property

The term Real Property describes buildings, structures, infrastructures that can be already listed on the National Register for Historic Places or be eligible for listing on it. Real Property does not include archaeological sites or artifact collections, nor does it include static display items. AR 210-20 governs the process of real property inventory (RPI) and provides guidance on the procedures involved. The recently released EO 13327 (Federal Real Property Asset

Management) The Real Property Master Plan (RPMP) are documents prepared for U.S. Army installations in accordance with the Department of Defense's United Facilities Criteria (UFC) 102 2-100-01, Installation Master Planning, updated in May 2012, and Army Regulation (AR) 210-20, Real Property Master Planning for Army Installations, updated in May 2005. Master planning is intended to allow installations to manage their real property resources in a manner that fully supports their overall mission (AR 210-20; AR 350-19). EO 13287 supports the national policy by encouraging the efficient management and continued viable use of historic properties, many of which remain vacant, underused, functionally obsolete, and occasionally incompatible with the Army's changing missions in the 21st century. The development of inventory reports provides Fort Drum the opportunity to review their historic preservation programs mandated by Section 110(a) of the NHPA and evaluate structures.

All property assets on Fort Drum have been assessed for their National Register potential eligibility; however, as buildings age and demands of the post change, a reassessment should be done annually to ensure compliance. The guidelines have been followed and the inventory is complete as of completion of this ICRMP.

Fort Drum's approach to real property is to support mission readiness, power projection capabilities and quality of life through connected, modern and sustainable infrastructure while enhancing the North Country's natural environment.

3.7 Potential Impacts to Cultural Resources

Fort Drum is an active military installation with training being conducted year-round. Fort Drum is home to a diverse array of military units that conduct training, including members of the NY state National Guard, additional National Guard units from the region, Canadian Forces, and local law enforcement.

Potential impacts to cultural resources on Fort Drum include training activities, installation activities that support training, and willful destruction. The Cultural Resources Program reviews all training activities following the same procedures whether they are 10th Mountain Division, tenant units, or National Guard. The Cultural Resources Program coordinates with the Integrated Training Area Management (ITAM) program for sustainable range management including

archeological site protection. Monitoring of known sites after any scheduled training activity is important to prevent any permanent damage of a site and to initiate mitigation should damage occur. There is a potential for ARPA violation resulting from unauthorized activities that violate protected and signed perimeters, see SOP # () for additional information and guidance.

Infantry and Artillery (Explosives and Impact) Training Activities

Infantry training activities include but are not limited to; bivouac or making campsites, digging foxholes, constructing berms, digging bunkers, establishing shower facilities, firing weapons, throwing grenades, digging soakage pits, trenching for tanks and vehicle positions, and breaking trails. Mechanized infantry use tread and wheeled vehicles on and off the road. Additional training activities include but are not limited to armored gunnery, artillery, air assault, mortar fire, air pyrotechnics, grenade launching, handling of claymore, anti-personnel, and anti-tank mines, use of TNT, and dynamite. Support construction in the ranges may include but is not limited to road and bridge building, multipurpose buildings, sheds, small buildings, storage facilities, bleachers, tent pads, and covered mess areas. Of the wide range of infantry training activities, digging foxholes, fighting positions, tank trenches, and bunkers as well as berm construction pose the greatest risk to archeological sites and buried cultural resources. When large numbers of individuals are engaged in activities of this nature, substantial amounts of earth can be moved with significant ground disturbance resulting. Fortunately, during the history of military training at Fort Drum, the soldiers have preferred to reuse the same positions over and over. As a result, some areas are highly disturbed while others are relatively intact.

Clearly, cultural resources within immediate impact and target areas are going to be significantly damaged if not destroyed. Exploding artillery shells leave craters and destroy cultural resources in the immediate vicinity of impacts. Ideally, this type of damage is restricted to the boundaries of Fort Drum's impact area that occupies approximately 23,000 acres. This impact area at Fort Drum was established before cultural resources were a regulatory and legal consideration. In addition to ongoing live fire, unexploded ordnance in the impact area will prevent cultural resource survey of this acreage for the foreseeable future. It may never be possible to assess the presence or condition of archeological or historic sites on this acreage using traditional survey or excavation techniques.

In addition to explosive impacts, there are disturbances from artillery training in the training areas. These disturbances result from digging vehicle-fighting positions and from establishing tactical operations centers (TOCs). Digging in and/or constructing berms using bulldozer push piles often protect artillery TOCs.

Live-fire training is conducted at firing ranges specifically designed for each weapon or weapon system. Firing ranges can be as simple as a firing line for shooters with permanent targets at known distances downrange to very sophisticated, computer operated, multi-purpose ranges with lanes for personnel or vehicles to move downrange engaging a variety of pop-up and/or moving targets. Ranges can be for weapons as basic as rifles and pistols or as complex as a helicopter gunnery or artillery ranges. New range construction will involve cultural resource survey and clearance.

Mechanized Infantry Maneuver Damage

Mechanized infantry use both tracked and wheeled vehicles. During wet weather, disturbance can extend to a depth of 30cm in alluvial soils at stream crossing points. Examination of tracked vehicle stream crossing points at Fort Drum revealed significant soil disturbance to depths in excess of 50cm in some places. ITAM construction of hardened stream crossing points is helping to diminish disturbances of this nature. Wheeled vehicles do not pose as much of a risk to sites located in shallow soils as tracked vehicles but can damage stream banks in a similar way to tracked vehicles. Analysis of range use at Fort Drum found that areas of dense vegetation in some of the training areas are concentrating vehicular traffic into localized corridors (Parsons 1997:9). The resulting erosion and soil damage have implications for previously undetected archeological resources. Training plans that call for prescribed burning or mechanized clearing of shrub vegetation in order to spread out vehicular traffic will help protect any possible cultural material as well as preventing further erosion and soil disturbance. Bivouac sites or temporary encampments generally involve parking vehicles (from HUMVEEs to large wheeled and tracked vehicles), setting up tents, camouflage activities, preparing food, personal hygiene and similar tasks. Bivouac locations involve the concentration of vehicles and personnel at specific sites, often for extended periods. The type of training, the area being used, and terrain features determine bivouac site locations. Specific bivouac sites tend to be heavily used due to repeated similar training activities in commonly used areas with limited sites that meet bivouac

requirements. Bivouac activities have the potential to disturb archeological sites, especially where digging occurs, and vehicles are concentrated.

Aviation and Airborne Corps

Fort Drum is the home of Wheeler-Sack Army Airfield. The installation provides a place for aerial gunnery training in addition to air transport, helicopter exercises, and tactical air support. There is always the potential for an aviation accident that could have the secondary effect of damaging or destroying a cultural resource. In addition, intense, low flying helicopter activity over non-vegetated sandy areas can result in wind erosion. This erosion could have the secondary effect of damaging sites in the landform.

Combat Engineer Operations

Combat engineers provide support to combat units. Combat heavy engineers have two general classifications. Vertical units construct walls, drill wells, install power/communication lines, complete electrical and plumbing projects, build structures and similar tasks. Horizontal units construct and maintain roads, prepare landing strips, dig fighting positions, construct or erect bridges, haul materials and similar tasks. These types of operations require NEPA consideration and cultural resource comments on the Record of Environmental Concern (REC). These activities will be coordinated with the Cultural Resources Program to minimize and avoid impact whenever possible. Additional information on inadvertent discovery can be found in SOP# 7, Accidental Discovery of Archeological Deposits.

CHAPTER 4 STANDARD OPERATING PROCEDURES

ICRMP SOP #1

National Historic Preservation Act (NHPA), Section 106 Compliance

What is Section 106?

Section 106 is the portion of the National Historic Preservation Act (NHPA) that requires federal agencies to consult with potential stakeholders as part of the planning process for a federal undertaking. A Federal undertaking is a project, activity, or program either funded, permitted, licensed, or approved by a Federal Agency. Undertakings may take place either on or off federally controlled property and include new and continuing projects, activities, or programs and any of their elements not previously considered under Section 106. (NPS, 2012)

Objective

The purpose of this Standard Operating Procedure is to streamline procedures to ensure compliance with Section 106. It is meant to ensure that consultation takes place for all undertakings on Fort Drum that have the potential to affect known and evaluated historic properties as well as any cultural resources not yet discovered, as the case would be with buried archaeological deposits. The process is to be initiated in the planning stages of any project.

Policy

Projects and activities on Fort Drum can qualify as an undertaking if said project or activity has the potential to alter, change or destroy the characteristics of a property that is included or is eligible for inclusion in the NRHP.

Ground disturbing activities, such as machine aided excavations, earth moving projects and/or training activities undertaken by the Army with ground disturbance will be executed with a goal of avoiding or minimizing damage to archaeological sites or other historic properties. Until an archaeological site has been officially determined to be not eligible under Section 106, and the New York SHPO has concurred with the determination, all sites in the inventory will be treated as potentially eligible and avoided wherever possible.

Responsible Parties

The Cultural Resources Manager on Fort Drum is responsible for assuring compliance with Section 106 on land belonging to or leased by Fort Drum.

Participants in Section 106 Process

All potential stakeholders are participants in the Fort Drum Section 106 Process. Stakeholders in addition to the New York SHPO, Native American Nations with ancestral ties to Fort Drum, and the Advisory Council on Historic Preservation can include but are not limited to families who lost homes on Fort Drum, preservation colleagues, non-governmental organizations, and members of the interested public.

Procedures

Step 1: Identification of Cultural Resources

Every undertaking on Fort Drum has to be approved by the CRM. The entity requesting the undertaking has to submit a Record of Environmental Consideration (REC) along with all the necessary project documentation through the following website:

https://army.deps.mil/army/cmds/imcom_usag8/drum/dpw/SitePages/Home.aspx, which includes a scope of work with associated design plans and coordinates for the site of the proposed undertaking. The CRM will review the REC on the website: \\drum-division\collaboration\PW-ENV\REC_REVIEW.mdb.

The CRM will determine whether there is a possibility of historic or archaeological properties in the undertaking's area of impact (AOI). The determination is done by consulting existing inventory, historical and current maps, and if necessary, it may require a survey of the AOI to identify unknown cultural sites. The applicable layers in the Environmental Division Geospatial Database of Record (GDBR) are continuously updated to include all known sites on Fort Drum and the REC, if submitted correctly, will show a map that provides the detailed location and coordinates on a GIS map. In the event the survey identifies a cultural resource, it must be determined if the site is National Register eligible before approval can be given to continue with the undertaking. Should it be possible to avoid a site without determining its eligibility for the

National Register, the CRM is not required to coordinate with the NYSHPO and the Nations, but Fort Drum includes its consultation partners in all of its considerations for undertakings.

Step 2: Determination of Effect

The CRM will make a determination of effect for resources eligible for the National Register. If the proposed undertaking has an adverse effect the CRM will proceed with the next step. The CRP will work with project proponents to make every effort to avoid adverse effects.

Step 3: Formal Consultation

If a finding of adverse effect to a National Register-eligible resource is determined, the CRM will consult with the New York SHPO and the representatives of the Native American nations, if appropriate. The correspondence with the SHPO will follow previously established procedures and include a description of the proposed undertaking with maps and/or figures when needed, a description of all relevant cultural resources' investigations for the APE, a description of the cultural resources to be affected and an explanation of the potential adverse effects.

Consultation should result in an agreement on procedures to avoid, reduce or mitigate adverse effects. The agreement has to take into account any mission-related needs, limitations and concerns of outside parties. Should it be impossible to modify the undertaking to avoid any adverse effects, then measures have to be put in place to reduce and/or counteract the negative impact. Effective counteractive measures are thorough documentation and data recovery, HAEBS/HAER technical drawings and outreach, or other measures that provide for partial protection of the cultural resource. These measures could include redesigning the undertaking, relocating the property or limiting the scope of the undertaking and other measures depending on undertaking and options presented. It is critical to note that on Fort Drum, design avoidance is the preferred approach for eliminating potential adverse effects.

Step 4: Consultation

Successful Consultation

The outcome of a successful consultation, whether with SHPO or Indian Nation representatives, is a written memorandum of agreement (MOA) that clearly outlines the measures that are to be

taken. Consultation can also result in a Programmatic Agreement (PA) to be used in similar future incidence.

Per AR 200-1, draft MOA's and PA's, following review by the New York SHPO and the Indian Nations when appropriate, will be staffed through HQDA for a 45-day review period. The Garrison Commander is the person authorized to sign the final document and return it to the CRM, who in turn will obtain signatures from the New York SHPO and the Indian Nations and if needed will forward the agreement to the Advisory Council to sign as well. A copy of the final document with signatures of all parties involved will be kept.

Termination of Consultation

If the CRM, Fort Drum Installation Management, the NYSHPO, and the Indian Nations cannot agree on a MOA or PA, consultation may be terminated after thirty days following initiation of the consultation, and the actions proposed may be implemented, the same way as it would have been done had the SHPO agreed. Should the consultation be terminated, the Advisory Council must be notified in writing and allowed to comment. The communication with the Advisory Council has to be as detailed as possible and should include all the correspondence between Fort Drum and NYSHPO and the Nations, as well as a description of the alternatives that were rejected by Fort Drum. It should further include a schedule of the proposed undertaking. After a review of the consultation, the Advisory Council has 60 days to issue comments and/or conduct an on-site inspection of the property(ies). If necessary, the CRM will address the Advisory Councils' comments and inform the council of Fort Drums' decision.

ARMY ALTERNATE PROCEDURES (AAP)

This process is a streamlined procedure that an Army Installation can elect to follow in order to fulfill the Section 106 requirements as set forth in 36 CFR Part 800. The AAP stipulates that the installation's management of historic properties is a programmatic, instead of a project-by-project review as it is described in the regulations of the ACHP. The AAP calls for an implementation of Standard Operating Procedures (SOP) in the ICRMP for a duration of 5 years omitting the project-by-project review.

At this time Fort Drum CRM will continue to do project-by-project review and follow the ACHP's regulations concerning undertakings on this base. The project-by-project review has been a proven process that allows for more flexibility, which the AAP would not permit.

Summary

The Fort Drum CRM can make findings of "no effect" under Section 106 of the National Historic Preservation Act, when proposed ground disturbing activities will avoid the locations of known archaeological sites. If the finding of "no effect" is based on National Register eligibility issues, documentation of the proposed finding has to be submitted to the SHPO and the Nations for comment, who then are requested to concur with the finding. An annual summary report covering all Section 106 actions and activities undertaken during the past fiscal year by the Cultural Resources Manager will be submitted to the SHPO and applicable THPOs within a reasonable timeframe after the end of the fiscal year.

Additional information regarding the NYSHPO can be found at https://parks.ny.gov/shpo/.

ICRMP SOP #2

NHPA, SECTION 110 COMPLIANCE

Objective

The purpose of this Standard Operating Procedure is to institute a procedure ensuring Fort Drum's compliance with Section 110 of the National Historic Preservation Act for Nomination of Archaeological Sites to the National Register of Historic Places.

Policy

All historic and prehistoric sites will be afforded the administrative protection as outlined in SOP #1 until they have been formally determined not to be eligible for the National Register.

Funding can only be allotted to sites that are either eligible for the National Register or are protected under other laws, such as American Indian Religious Freedom Act, NAGPRA, or laws protecting cemeteries and other historic/prehistoric sites. Cemeteries are to be preserved as undisturbed as possible, regardless of National Register eligibility.

Procedures

Prehistoric Sites

The original survey records for each identified prehistoric site have been evaluated by an archaeologist familiar with the Fort Drum site inventory and with research questions considered relevant to Northern New York prehistory. The initial determination of National Register eligibility was made using these records and evaluation.

The procedure for evaluating prehistoric sites is outlined below and should be used for new sites or previously located sites, where insufficient information was available when the initial determination was made. Most prehistoric sites will qualify for the National Register under Criterion D (Research Potential).

Sites that had been previously determined to lack sufficient information will be relocated and reevaluated based on current available data. If necessary, additional excavations will be conducted after the field visit.

- 1. Potentially eligible sites will be subject to Phase 2 and if necessary, Phase 3 testing as outlined by the New York State Archaeological Council. Investigation methods are also outlined in SOP #4. Should the excavation result in a determination of eligibility, then the specific area of research will be identified. The Army, SHPO and Fort Drum's three Native American Partner Nations have to concur with this finding, at which point the site will be protected accordingly. A finding of not eligible, to be confirmed by Army, SHPO and Nation representatives, requires no further actions.
- 2. Should a site require more extensive excavations to determine its eligibility status, then the site will continue to be placed in the potentially eligible category with the same protection as a site that was determined to be eligible until such time that the site can be properly evaluated, and sufficient information is available.

Historic Sites

Historic Sites can qualify for the National Register on any of the four basic criteria. These sites may be significant to local, state, or national history because of an association with a specific event, broad processes or historically important persons.

The New York SHPO states the following criteria for consideration for nomination:

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the State and National Registers. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- a religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- a building or structure removed from its original location, but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with their productive life; or

- a cemetery that derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- a reconstructed building when accurately executed in a suitable environment and presented as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
- a property achieving significance within the past 50 years if it is of exceptional importance.

(Retrieved from https://parks.ny.gov/shpo/national-register/)

Eligibility determinations for the majority of historic sites on post have been completed and the following procedures are only pertinent to sites that have yet to be identified or where current data is insufficient to make a determination. Per agreement with the NYSHPO the research of historic farmsteads on Fort Drum is considered complete (see also Appendix E), so any additional investigation of sites with this context has been deemed unnecessary.

The only potential for additional historic sites would be within contexts outside of typical 19th farmsteads.

Steps for evaluation:

- 1. Archival analysis of the potential site, which will be done in conjunction with field investigation. Sites that are at risk for destruction and/or damage by training activities will have priority. A short site history will be compiled for each historic site comparing the chronological evidence from the archival record with that recorded on the site survey forms. The names recorded on the chain of ownership will be compared to standard references to establish any significance of persons in state history. The brief histories can often provide enough information for a determination of "not eligible".
- 2. Should a site warrant additional investigation, then evaluating the current condition of the site is the next step. Integrity and the archaeological deposit have to be assessed.

- A site can be designated to not be eligible based on scarcity of deposits, or prior disturbance of the site.
- 3. After the evaluation of site condition and deposit, should the site meet the National Register criteria, a qualified archaeologist will investigate and evaluate the site. The site will be protected as if eligible until conclusion of investigation. If the archaeologist's findings support a nomination, the Army and SHPO will review the recommendation, if they concur the site will be nominated.

ICRMP SOP #3

ARCHAEOLOGICAL RESOURCE PROTECTION ACT OF 1979, COMPLIANCE **PROCESS**

Objective

This SOP implements the provisions of Public Law 96-95 (93Stat. 721; 16 USC 470aa470MM), Archaeological Resources Protection Act of 1979 (ARPA), and the final uniform regulations issued under the Act by the Department of Defense (32 CFR § 229) and clarifies the procedures and standards for issuance of permits for exceptions to restrictions to excavate. ARPA states that "any material remains (older than 100 years) of past human life or activities which are of archaeological interest" are considered archaeological resource under this act. The purpose of this act is to protect said archaeological resources on any public and Indian land. The removal, destruction, damaging or any alterations of these resources by unauthorized persons are considered a federal felony.

Policy

The owner of any archaeological resources found on Fort Drum is the United States Government, unless these resources fall under regulations set forth in NAGPRA, at which point these resources would be turned over to the affiliated Nations.

In instances where proof of violation of the act may be insufficient to obtain a conviction under the act, or where deemed otherwise advisable, the Staff Judge Advocate may choose to assess a civil penalty under the provisions of 32 CFR § 229.15. Civil penalty actions may be specifically applicable to Section 106 of the NHPA violations. The Installation Commander is considered the Federal Land Manager under ARPA, as such he or she can determine that certain archaeological resources in specified areas within his or her jurisdiction are no longer of archaeological interest and not considered archaeological resources under ARPA. Determinations like this are deemed justified and are to be documented by memorandum.

The use of metal detectors to locate archaeological resources is not permitted on Army land unless the user is Army personnel, a contractor, or permittees in association with official cultural resources management activities or pursuant to a permit issued under ARPA.

The provisions of ARPA are strictly enforced on Fort Drum and any exceptions require a federal permit. Any qualified person may apply for such a permit to excavate and/or remove archaeological remains from federal lands, in accordance with 32 CFR §226.6. The CRM will be the issuing authority for such permits.

At this point Fort Drum does not issue permits to outside agencies, should a request be made, the procedures below are to be followed.

Procedures

Archaeological investigations that result in excavations and/ or removal of archaeological resources from Fort Drum may not proceed without written approval by the Federal Land Manager or CRM. Army staff and contractors carrying out authorized official duties and who meet professional standards and whose investigations meet the requirements of 32 CFR 229.8 are not required to obtain a permit under ARPA.

Other archaeological investigations that may result in the excavation and/or removal of archaeological resources from Fort Drum must obtain a permit issued by the Cultural Resources Manager at the approval of the Garrison Commander.

The Garrison Commander provides the Cultural Resources Manager with approval to issue the permit by means of a Determination of Availability report prepared after necessary consultation and compliance actions have been met. Fort Drum will consult with the representatives of Fort Drum's three consultation partners prior to permitting any excavations in areas where indigenous cultural resources are suspected.

The following procedures are to be followed should a permit be requested:

- 1. An application is to be submitted.
- 2. The application has to be approved by the GC and the CRM, and if necessary, by an IMCOM representative. The allotted 90-day processing time for technical review can be extended. This review is done by a qualified archaeologist in accordance with the existing regulations.
- 3. The CRM will conduct the technical review and ensure compliance with regulations.

- 4. The Fort Drum CRM (or their designee) will monitor the field investigations of persons with archaeological/cultural permits to ensure:
- Compliance with the requirements of 32 CFR § 229, 43 CFR § 10 and the terms and conditions of the permit,
- That any rights or interests that a federally recognized Indian Nation may have in the
 permitted activity are addressed in a manner consistent with the requirements of the
 NHPA, GPRA, AR 200-1, and any other applicable laws, executive orders and
 regulations.
- That permitted activities are conducted in a manner consistent with the applicable professional standards of the Secretary of the Interior.

Public Notice

The CRM will assure that brief notices outlining the acts prohibited under ARPA and the criminal penalties allowed under the act are made known to the Fort Drum community, specifically the policy stating that the use of metal or density detectors for the purpose of undersurface discovery.

Permitting

Exceptions to the ARPA require a federal permit. Per ARPA any person qualified can apply for a permit to excavate or remove any archaeological resource located on public lands and to carry out activities associated with such excavation or removal; however, the military installation is the issuing entity. The application should contain all the information deemed necessary by the CRM, such as time, scope and location as well as specific purpose of the proposed work. The activity proposed has to be carried out for the purpose of advancing archaeological knowledge. Any items removed during the excavation are property of the United States and will be curated on Fort Drum in compliance with the curation SOP.

Enforcement of ARPA violations

Any ARPA violation is considered a federal offense. If there is reason to believe that a violation occurs or is believed to have occurred, the Provost Marshal will initiate an investigation on the request of the CRM. The CRM will, along with the Cultural Resources Staff, assist in the investigation. The Provost Marshal, as the law enforcement body, will pursue the investigations

to prove the violation. Should the proof not be sufficient to ensure conviction or in cases where it would be counterproductive to seek conviction, the SJA can assess Civil Penalties under provisions of 32 CFR Part 229.15.

The CRM is the deciding person who determines whether or not a damage to a cultural resource constitutes a willful violation of Federal Law. DPW, the Provost Marshall and the GC will be notified by the CRM of the findings. If the violations involve Military personnel, then the Commander of the Unit will be contacted as well, likewise should it involve contractors the Directorate of Contracting will be informed.

The investigation of any ARPA violation should commence when the violation is first suspected. The procedures for the investigation should follow standard law enforcement crime scene investigation procedures. A specially trained law enforcement officer will be tasked to assist in the investigation as the subject matter expert in crime scene investigations, while the CRM and staff will be the archaeological subject matter experts. At the end of the investigation a detailed report should be produced which includes both the law enforcement and the archaeological specialists field notes with maps and sketches and/or photos, as well as a damage assessment report and witness statements.

In keeping with the Program's philosophy of transparency, the CRM will keep representatives of the SHPO and the three Partner Nations informed of any suspected ARPA violation, subsequent investigation, and outcome. ICRMP SOP#4

STANDARD FOR FIELD SURVEY PROJECTS AND INVESTIGATION

[References: NHPA 1966, as amended, 16 USC 470-470w, 36 CFR § 800]

Objective

The following SOP outlines standards for archaeological field survey projects and investigation on Fort Drum, any lands leased by Fort Drum, and any land where ground disturbance will take place related to a Fort Drum project, for example, off site wetlands mitigation. The guidelines are intended to provide basic minimum requirements for all Cultural Resources Program staff and ORISE interns within a framework from which all field survey projects and evaluations will be conducted. Phase 1 archaeological investigations are required by Sections 106 and 110 of the National Historic Preservation Act. Section 106 requires that federal agencies assume responsibility for identifying, evaluating, nominating and protecting historic properties under

their control.

It is important to note that the CRP pro-actively works with the Fort Drum contracting office to

include contract language that specifies that any borrow material used on Fort Drum will come from a source that has followed New York State regulations concerning archaeological survey

and review.

Policy

The Fort Drum Cultural Resources Program will comply with a standardized set of methods for all archaeological survey. These methods can be found in Appendix G, which includes the field

crew orientation materials with any applicable documentation and samples. These guidelines are

intended to be followed by each member of the CRM program that is conducting field surveys.

The survey results will be entered into the Environmental Division Geospatial Database of

Record (GDBR) within a reasonable amount of time following the completion of the survey by

the Environmental Division Geospatial Data Manager to ensure accuracy.

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ICRMP SOP #5

STANDARDS FOR NOMINATION OF ARCHAEOLOGICAL PROPERTIES TO THE

NATIONAL REGISTER OF HISTORIC PLACES

[Reference: 36 CFR §60, National Register of Historic Places]

Objective

Fort Drum is responsible under Section 110 of NHPA for identification of archaeological sites,

traditional cultural properties, objects, buildings, landscapes, and districts on the Installation that

may be eligible for the National Register of Historic Places (NRHP). Fort Drum is also

responsible for evaluating these properties and obtaining NYSHPO's and Partner Nation

comments on the evaluation.

Definition

National Register of Historic Places

The National Register of Historic Places is the official list of the Nation's historic places worthy

of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park

Service's National Register of Historic Places is part of a national program to coordinate and

support public and private efforts to identify, evaluate, and protect America's historic and

archeological resources. (nps.gov)

Criteria for consideration of listing a property in the National Register of Historic Places

The quality of significance in American history, architecture, archeology, engineering, and

culture is present in districts, sites, buildings, structures, and objects that possess integrity of

location, design, setting, materials, workmanship, feeling, and association, and:

a. That are associated with events that have made a significant contribution to the

broad patterns of our history; or

b. That are associated with the lives of significant persons in our past; or

c. That embody the distinctive characteristics of a type, period, or method of

construction, or that represent the work of a master, or that possess high artistic

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- values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. That have yielded or may be likely to yield, information important in history or prehistory.

Exceptions

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, there are exceptions and these exceptions are listed above under SOP #2, NHPA Compliance.

Policy

While a listing on the National Register does not provide unlimited protection from any federal actions that may affect the property, it does provide some and requires additional measures to be taken to ensure compliances. The Fort Drum CRP, the NYSHPO, and the three Partner Nations are mandated to cooperate in an effort to minimize or potentially eliminate the negative effect any federal undertaking could have on the property. The procedures set forth apply to listed properties as well as those deemed eligible for inclusion. Prehistoric archaeological resources are often evaluated under Criterion D of the NRHP, while historic resources possibly will be evaluated on any of the criterion. The site characteristics have to be assessed from a regional specific perspective and evaluation of eligibility must be considered on a site by site basis.

Procedures

A prehistoric archaeological site on Fort Drum would be considered for eligibility, if one or more of the following characteristics are present and have been demonstrated by either survey or test investigations.

1. The site provides good evidence of being a single component occupation of a recognizable cultural period or is the first representation of a culture on the installation.

- 2. The site exhibits multiple cultural components that are separable and for which data suggest that chronological control can be obtained.
- 3. The site contains unusual or unique remains that suggest that an investigation of the property would produce data that would contribute to the progression of knowledge
- 4. The site contains noteworthy configuration features such as a mound.
- 5. The site contains remains that may be associated with important events or cultures that have been reconstructed from the archaeological record.

The procedures for a historic site to be considered eligible differ from that of a prehistoric resource. Any or all of the following characteristics must be present for a historic site on Fort Drum to be considered National Register eligible.

- 1. The site is well preserved and determined to be the single most complete or appropriate representative of a specific activity on Fort Drum, for example Fort Drum's best preserved cheese factory.
- 2. The site is well preserved and a unique example of a specific activity on Fort Drum.
- 3. The site contains material remains or features that demonstrate an association with the historic context of Fort Drum and the land prior to becoming Fort Drum.
- 4. The artifact assemblage from a site contains unusual artifacts that can be studied to fill in missing links in the regional history.
- 5. The site is demonstrated to be associated with a significant event or individual, and there is potential that investigation could provide data that be related to the event or individual to further advance the historical record.

All historic farmsteads on Fort Drum are considered mitigated through an agreement between Fort Drum and the NYSHPO with selected representative examples protected as National Register eligible sites. Additionally, the dispersed social center context and dispersed agricultural processing industries context will be considered mitigated upon completion of context inventories. Well preserved and appropriate representations of activities and structures within these contexts will be selected or have already been selected for protection. All assessments of military construction and training activities will be conducted primarily on the basis of national context; nevertheless, state and local context will be considered.

Any assessment of a structure or specific property can include historic document research, archaeological survey and testing, oral histories and architectural evaluation or any combination of these. All assessments will be done in accordance with current legislations, following NRHP criteria and 36 CFR §61.

STANDARDS FOR MANAGEMENT OF HISTORIC STRUCTURES ON FORT DRUM

INCLUDING PRESERVATION, REHABILITATION, RESTORATION,

RECONSTRUCTION, MAINTENANCE, DEMOLITION AND/OR NATIONAL REGISTER

NOMINATION

[Reference: NHPA 1966, as amended, 16 U.S.C. 470-470W, 36 CFR § 800]

Objective

The objective of this SOP is to provide a framework to insure routine evaluation of above ground

properties at Fort Drum that are or may become eligible for the NRHP, to guard against

inadvertent damage to potentially eligible historic properties that might adversely affect their

eligibility prior to evaluation, and to provide for routine maintenance, repair, operation, and

treatment of facilities that are over 50 years old. Regulations governing Real Property

AR 405-70, EO 13327 are to be followed when managing structures on Fort Drum.

Policy

Fort Drum will proceed with caution in the maintenance, repair, renovation, and operation of all

above ground structures, monuments, and landscapes that are 50 or more years old and that have

been determined to be potentially eligible for the National Register. As of this ICRMP all

structures on the Real Property Inventory have been evaluated for their eligibility for the NRHP,

and the Real Property Asset Database is reviewed annually by the CRM in order to keep these

determinations up to date.

Procedures

Rehabilitation and Maintenance of Historic Properties

The procedures for maintenance and repair of historic buildings are in accordance with the

Secretary of the Interior's Standards for Rehabilitation. These procedures identify activities that

will result in determinations of no historic properties affected and no adverse effect. These

procedures do not exempt undertakings from coordination with the New York SHPO.

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- 1. The following actions associated with maintenance and repair of landscapes, roofs, exterior walls, windows and doors will result in determinations of no historic properties affected:
 - Removal of snow, including the use of salty agents and sand;
 - Pruning of shrubbery and trees to allow light to reach walls and prevent undue dampness and mildew;
 - Routine cleaning of gutters and downspouts; and
 - Cleaning wall surfaces with standard water pressure and natural bristle brushes;
- 2. The following actions associated with maintenance and repair of landscapes, roofs, exterior walls, windows and doors will result in determinations of no adverse effect:
 - Replacement and repair of existing water, sewage and heating lines in their
 present configuration and alignment with in-kind repair without altering existing
 site features such as vegetation, lighting, walks, steps and building foundations;
 - Replacement and repair of existing electric lines and poles in their present configuration and alignment;
 - Installing ice and water barrier material along the lower edges of roofing;
 - Replacement in-kind of existing siding matching appearance, color and texture;
 - Repair of existing foundation walls, footings, piers and slabs to match existing materials, installation technique, profile and finish;
 - Re-glazing and caulking broken windowpanes to match original;
 - Replacement or repair of existing window screening to match existing; and
 - Replacement or repair of existing door screening to match existing.

All other maintenance and repair activities not listed above or not consistent with the Secretary of the Interior's Standards for Rehabilitation will receive determinations of adverse effect and will require Section 106 consultation with the New York SHPO.

1. All above ground buildings, structures, or landscape features fifty or more years old will be identified as being potentially eligible for inclusion in the NRHP until such time as they have been determined to be ineligible for inclusion as a result of consultation with SHPO, the ACHP, or the Keeper of the Register. World War II

- temporary wooden structures covered by the MOA are exempt from this consideration.
- 2. The proponent of any action that may affect any eligible or potentially eligible property will provide the Cultural Resources Program with copies of the project documentation in accordance with the provisions of SOPs 1 and 2.
- 3. The proponent of any action to demolish any eligible or potentially eligible property will provide the Cultural Resources Program with a notice of intent to demolish and copies of project documentation. The proposed action will be reviewed by the Cultural Resources program in accordance with SOPs #1 and #2.
- 4. The Cultural Resources Program Manager will ensure that project documentation for proposed actions that may affect any eligible or potentially eligible property is reviewed by a professional who meets the applicable standards included in 36 CFR 79.
- 5. This professional will determine if the proposed action will have an effect on the resource that would warrant consultation with the SHPO, the ACHP, or the Keeper of the Register. Actions that do not warrant consultation will be included in the annual or periodic report to the SHPO. All actions affecting historic properties on Fort Drum will be in keeping with the Secretary of the Interior's guidelines for management of historic properties.

ACCIDENTAL DISCOVERY OF ARCHAEOLOGICAL DEPOSITS

[References: NHPA 1966, as amended, 16 U.S.C. 470-470w, 36 CFR § 800, Protection of Historic and Cultural Properties]

Objective

The archeological survey of Fort Drum is not complete which is why it is critical that all excavation projects are coordinated through the Cultural Resources Program. Even after coordination, archeological investigation methods, such as sampling based survey, the potential for the accidental discovery of deeply buried archeological deposits including human remains remains. The presence of human remains is of particular concern at Fort Drum, even in inventoried areas. This SOP outlines procedures to be followed in case of accidental discovery. In case of a discovery involving potential Native American remains see the NAGPRA SOPs. Essentially, Fort Drum will follow the process specified in the Inadvertent Discovery Agreement signed by Fort Drum and the Oneida Indian Nation.

Policy

Procedures outlined in SOP #1 will be used to evaluate the location of a proposed excavation. In addition, all excavations within the cantonment area require an excavation permit that must be reviewed and initialed by the CRM. If no deposits are identified during the evaluation but there remains a high probability that such deposits may exist, the Cultural Resources staff reserves the right to monitor any excavation. All contracts at Fort Drum include the stipulation that all work will cease within a 30-meter radius of an accidental discovery during the course of a contract activity and that the Cultural Resources Program Manager will be notified immediately. Because of the potential of any archeological deposit to contain Native American human remains or cultural materials, failure to report discovery of archeological deposits may result in violation of NAGPRA, ARPA and other related federal and state laws resulting in fines and penalties against the Garrison Commander of Fort Drum, New York.

Procedures

- 1. Upon discovery of archeological materials, personnel will report the finding of artifacts to the CRM at the Environmental Division and cease ground-disturbing operations in the area.
- 2. When notified of the possible discovery of unexpected buried archeological material, the CRM will arrange for a qualified staff member to visit the excavation as soon as possible within 24 hours of the discovery.
- 3. If, upon the examination of the recovered material, it appears to be modern debris or other such materials that are often mistaken for archeological materials, the CRM may allow the excavation to proceed without further action.
- 4. If, upon examination, the recovered materials are clearly of human cultural origin, the CRM must make a field evaluation of the primary deposit and its probable age and significance. The findings will be recorded in writing, documented with maps, photographs, notes, and drawings. If the find includes human remains, the CRM will follow the procedures outlined in NAGPRA SOP #1 and the Inadvertent Discovery agreement.
- 5. If the disturbance to the site has been slight and the excavation can be relocated to avoid the buried site, the CRM is only required to file the site forms with the NYSHPO in a routine manner, having avoided adverse impact through relocation of the excavation. The area may be placed off-limits until such a time that the area can be examined more closely for National Register eligibility. If the deposits include human remains, the procedures outlined in NAGPRA SOP #1 and the Inadvertent Discovery Agreement are to be followed.
- 6. Where excavation cannot be relocated or simply aborted by Fort Drum, emergency consultation for adverse effect with the NYSHPO and the Partner Nations will be required. Ground-disturbing activities will remain suspended. The steps for this consultation will include:
 - a. Telephone consultation with the field review staff at the New York SHPO and staff counterparts at the Partner Nations. During these conversations, a 36 CFR § 800 qualified staff member will review the discovery, summarizing the facts that bear on the significance of the site relative to the criteria for NRHP eligibility. If both the SHPO representative and the qualified staff members

- agree that the deposit encountered is not eligible, the telephone conversations will be summarized in a Memorandum for Record to be included in the site report. This Memorandum for Record will be provided to the NYSHPO and the Partner Nations for concurrence. The Memorandum for Record will also be included in the annual Cultural Resources report. The CRM may then allow the excavation to proceed but must assign a qualified staff member to monitor the excavation for other deposits that may be eligible.
- b. If the recovered data is insufficient to make a determination of eligibility, in the opinion of either the SHPO, the Partner nations, or Fort Drum, an emergency testing plan will be devised by a 36 CFR § 800 qualified CRM staff member and coordinated with NYSHPO and the Nations. Further activity in the vicinity of the site will be suspended until the agreed upon testing procedure has been carried out and sufficient data gathered for a determination of eligibility to be made. If the NYSHPO, the Nations and Fort Drum agree after testing is complete that the site is not eligible for the NRHP, work on the project may resume.
- c. If after testing, the site appears to be eligible, or if there is a question about eligibility, then Fort Drum will reconsider relocation of the project to avoid adverse effect. If the project cannot be relocated, Fort Drum will proceed with data recovery or an agreed upon form of mitigation under a Memorandum of Agreement (MOA) with the NYSHPO and the Nations that specifies the scope and extent of the data recovery or other form of mitigation required. These options may be implemented as an extended test for NRHP eligibility and can be terminated when evidence specified in the MOA indicates that the site is not eligible.
- d. When recovery of human remains is deemed to be likely, Fort Drum will initiate the procedures as specified in the Inadvertent Discovery Agreement with the Oneida Indian Nation.

REPORTING TO THE STATE HISTORIC PRESERVATION OFFICER, ADVISORY COUNCIL ON HISTORIC PRESERVATION AND THE PARTNER NATIONS

Objective

The objective is to establish a reporting procedure to ensure that Fort Drum reports accurately and represents archaeological survey and historic preservation activities of the cultural resources program.

Policy

Fort Drum will provide the NYSHPO, ACHP, and the Partner Nations an opportunity to comment on all Section 106 undertakings. The program endeavors to survey at least two years prior to all major undertakings so that these opportunities to comment can be handled in an "Annual Report of Cultural Resources Management Activities". This report will be a collection of all of Cultural Resources' management activities accomplished during the previous calendar year. It will allow the NYSHPO, the ACHP, and the Partner Nations to make informed decisions on the Fort Drum's compliance with Section 106.

In cases where the time frame between the archaeological findings and the potential undertakings are less than one year, the Fort Drum CRP will pull ahead these reports and submit them in a timely way to permit as much time as possible and a minimum of thirty days for review and comment by all parties.

Procedures

The annual report is a compilation of all programmatic activities for any given calendar year. The project report components will include:

- 1. An introduction discussing the purpose and scope of each investigation.
- 2. A brief description of the immediate natural environment of the project area and background information.
- 3. A discussion of the field and laboratory techniques and methods.
- 4. A discussion of the results of the project including a discussion of all artifacts and features discovered.

- 5. All project reports will include maps and photographs, including a map showing the location(s) of the project, and a map clearly indicating the location(s) of all excavations, shovel tests, any features discovered, relevant topographic features, and any other information pertinent to the project. The photographs should be high resolution. Each photograph will be captioned to indicate viewer orientation and the subject of the photograph. All photographs will be keyed to the project and area maps. All maps will be keyed to a USGS map. All photographic reproductions will be full color on archival photographic paper. The maps will be professionally drafted.
- 6. NYSHPO site forms will be filled out as required for all relevant projects.
- 7. Each report will include a bibliography listing all sources consulted during the investigation.

DISSEMINATION OF PROGRAM ACTIVITIES TO CONCERNED PARTIES AND THE PUBLIC

Objective

Numerous federal regulations and sound policy require that the interested public have access to the results of cultural resource management programs undertaken at public expense.

Nevertheless, cultural resources are exempt from the Freedom of Information Act because identifying the location of cultural resources may subject them to vandalism.

While coordinating with the public, Fort Drum Cultural Resources program will take measures to control the dissemination of cultural resources information and will provide no information on the location of vulnerable archeological sites. This SOP does not concern consultation with the New York SHPO, Advisory Council, or Native American entities. Fort Drum's cultural resources documents will be prepared so that maps of specific site locations are easily removable. Documents for the public will be copied so that maps or site forms are not included.

This SOP describes the routine measures that will be undertaken by the Cultural Resources Staff at Fort Drum to aid such access.

Policy

All reports of research will be made available to the NYSHPO where they are put on file in the State of New York Consolidated Archeological Site Files and to the Partner Nations who are trusted to protect the information as well. Reports are also available for use at the DPW, Environmental and Engineering Division offices. Other materials prepared by the cultural resources staff or by contractors may be published in scholarly journals, presented as papers at meetings of academic societies or published in book form. While the Army encourages teaching, lecturing, and writing, Army regulations and protocol must be observed by the Cultural Resources Staff, federal and contract.

Procedures

The CRP maintains a Facebook page for dissemination of information to the public.
 All press releases and other items of interest are shared on this page.

- 2. Formal requests from unfamiliar entities to use Fort Drum's archeological collections including associated records will be made through the Public Affairs Office (PAO). The written request will include: the requestor's name, address, and telephone number; items needed for research; intent of the research; and goal of the research.
- 3. Loans will be addressed on a case by case basis and will leave the installation only under special circumstances.
- 4. Where materials will have a wider interest, these may be published in scholarly journals, books, or given as papers at meetings of academic societies. All materials prepared by the Fort Drum Cultural Resources Staff including contract personnel as part of their official duties will be submitted through channels to the staff PAO, JAG office and through DPW chain of command for approval, in compliance with AR 360-5. Materials prepared by contractor personnel for such presentations will be approved in the manner specified in the individual contract and will follow a similar process.
- 5. If and when Fort Drum Cultural Resources Personnel choose to publish as private citizens, they may not reveal sensitive site location information. If the publication has the potential for security concerns, they must allow Fort Drum security personnel an opportunity for review. The author or presenter must also include in the publication or presentation the statement, "This publication/presentation has been prepared in the author's private capacity and does not reflect the opinion or position of Fort Drum, the US Army, or the US Federal Government."

PUBLIC ACCESS TO CEMETERIES, BURIAL SITES, SACRED SITES AND TRADITIONAL CULTURAL PROPERTIES

[Reference: NHPA 1966; Public Law 89-665, as amended by Public Law 96-515, Executive Order 13007, AIRFA]

Objective

Various provisions of public law, army regulation, federal law, and sound policy require that the appropriate interested public have access to cemeteries, burial sites, sacred sites, and traditional cultural properties. This internal SOP describes the routine measures that will be undertaken by the Cultural Resources Staff at Fort Drum to aid such access. Visitor safety is an overriding concern for all visitor access policies and procedures at Fort Drum.

Policy

It is the policy of Fort Drum to permit reasonable access to cemeteries, burial sites, sacred sites, and traditional cultural properties. Exceptions to this policy may occur when the personal safety of individuals is in question; where active military training would be compromised; or when the physical integrity of a site may be altered. Interested parties include Fort Drum's three Nation Partners, and could include Federally-recognized affiliated Native American organizations, the NYSHPO, family members of individuals interred on Fort Drum, municipalities owning cemeteries on Fort Drum, and cemetery associations of cemeteries on Fort Drum. Public access to family and private cemeteries will be allowed assuming the visit has been coordinated with Fort Drum authorities. Coordination of such visits with the Public Affairs office, Cultural Resources office and Range Control must be conducted in order to avoid any conflicts with scheduled training activities. It is the policy of Fort Drum to cease all training activity on Memorial Day and Labor Day to allow public access to all cemeteries on the Installation for that day. This access includes Wood's Mill Cemetery that is located inside the impact area boundary.

Procedures

 Requests for individual, private citizen access to Fort Drum cemeteries, burial sites, sacred sites or traditional cultural properties will be made through the Public Affairs Office. The written or verbal request will include the requestor's name, address, and telephone number; estimated time and length of the visit; a point of contact who will be at the visit; the number of motor vehicles; makes of vehicles and license numbers; precise location of the visit on the installation; and general nature or reason for the visit. Identities of persons requesting access will be kept confidential on request. Requests must be made with no less than five working days before the desired visit date. Exceptions may be made for funeral arrangements. It is strongly encouraged that longer notice be given to insure access. Access may be declined at any time for necessary military training activities.

- 2. As soon as all of the necessary information has been received, the PAO will provide a written notice with all of the above information to the DPTM Range Division and DPW, Environmental Division, Cultural Resources Program. These offices will review the request and return written comments to the PAO.
- 3. The PAO will forward all requests for official state visits by Native American organizations to the Installation Garrison Commander's office for guidance.
- 4. Once visitors receive written confirmation of range clearance from PAO, passes may be picked up at Range Control. Confirmation of range clearance for official state visits by Native American governments will be provided through the Office of the Commanding General.
- 5. Visitors will adhere to the following guidelines.
 - a. Certain impact areas will not be entered at any time.
 - b. Visitation will not be permitted if training activities pose a hazard to the visitor.
 - c. Visits are to be made during normal operating hours, 0700 1530, generally daylight, unless special arrangements have been made in advance.
 - d. Plants may be collected as needed for medicinal, ceremonial, and personal subsistence use. Requesters will be asked to provide a list of plants they intend to collect. Trees may not be cut down. Threatened, Endangered, or otherwise prohibited species will not be disturbed in any way. Collection of feathers is prohibited.
 - e. Visitors may not disturb archeological or historic sites in any way.

- f. Visitors will comply with all Federal, state, and installation laws and regulations.
- 6. When an individual request cannot be approved due to military training or for safety reasons, the Public Affairs Office will propose an alternate date or request an exception to policy from the Chief, Range Division. In the event that a resolution satisfactory to all of the parties cannot be made, requests and comments will be forwarded to the Fort Drum Garrison Commander for a final decision.
- 7. In the event that a Tribal request cannot be approved due to military training or for safety reasons, the PAO will inform the Cultural Resources Manager, Garrison Commander and Installation Commander immediately.
- 8. For large visits, the request should be submitted to the Public Affairs Office at least sixty days prior to the visit so that proper arrangements can be made with Range Control to reserve training area acreage. This notice will enable the Garrison to make any appropriate special arrangements for the group as well.
- 9. Any appropriate special arrangements, like security or handicapped accessibility, must be made at the time of the original coordination.
- 10. Representatives of Fort Drum's three Partner Nations may coordinate their requests through the CRM in her role as Nation Liaison so that the requests can go directly to the Garrison Commander. The CRM will keep the PAO informed.

MONITORING OF PROTECTED ARCHAEOLOGICAL SITES AND PROPERTIES ON FORT DRUM

Objective

The objective of this SOP is to provide procedures for systematic and consistent monitoring of protected cultural resources on Fort Drum.

Policy

National Register eligible cultural properties on Fort Drum are placed off limits by order of the Garrison Commander. When a new site is discovered that the CRP identifies as worthy of protection, the CRM will brief the Garrison Commander at the next available meeting of the Environmental Quality Control Committee for his or her permission to post the off limits signage. These properties are posted as such with the expectation that there will be no pedestrian or vehicular incursions on these properties (including no access to recreational users). In some cases, training or pedestrian traffic may be allowed with the provision that no ground disturbance take place. These sites are posted accordingly. However, environmental factors like erosion can cause protected properties to deteriorate as well. It is the responsibility of the cultural resources program to inventory designated and protected cultural properties on Fort Drum on at least an annual basis to determine their condition.

Procedures

- 1. The Cultural Resources Program will maintain an up to date list of eligible National Register properties within the Environmental Division Geospatial Database of Record (GDBR). The data associated with the locations will include the Fort Drum identifying numbers, NYSHPO site numbers where applicable, the nature of the site, the reason for eligibility, the size, and directions for finding the site. The applicable data layers will not be available to the public.
- 2. The Cultural Resources Survey will send qualified crew members to each site at least once a year to evaluate the site's condition. Sites located in heavily used areas will be visited on an as needed basis, including during training activities if it is deemed

necessary. The crew will be prepared with a map of the site, an evaluation form, and a photograph of the site from the year before. The evaluation will include:

- a. Photographs
- Status of the posted signs with recommendations for adding or repairing signage
- c. Evidence of any trespassing within posted perimeters
- d. Damage not present the year prior
- e. Natural deterioration due to erosion, vegetation or other environmental factors
- 3. If the site is in good condition, results of the monitoring will be included in the annual report.
- 4. Any damage or deterioration to the site with implications for site integrity will be documented and reported to the SHPO and the Partner Nations along with recommendations for mitigation.

REPORTING DAMAGE TO PRESERVATION DISTRICTS AND/OR ARCHAEOLOGICAL SITES

Objectives

This SOP provides a framework to ensure the routine reporting of damage to the preservation districts and/or archeological sites on Fort Drum and to protect Fort Drum's cultural properties from all unnecessary damage. Fort Drum will report damage to any National Register Eligible or Potentially Eligible Archeological sites when necessary following federal law and regulations.

Introduction

During routine training activity at Fort Drum, there exists some risk of inadvertent damage to archeological sites that may be eligible for the NRHP. Such damage can occur through the failure of routine administrative controls provided elsewhere in this plan, through failure of units to place excavations as instructed in order to avoid sites and/or construction projects not following correct procedures.

Fort Drum will exercise every precaution to avoid and reduce the risk of damage to Fort Drum's cultural properties.

To date, the most effective method for protecting archeological sites on Fort Drum has been the incorporation of them into the non-lethal target lists and encouragement of their use as sacred and significant spaces during exercise scenarios.

Policy

The CRM staff will routinely monitor excavations where precise placement is required to avoid impact to archeological sites. The CRM staff will review all excavation requests on Fort Drum in order to prevent excavation in proximity to known cultural resources.

In cases where a cultural property (i.e. preservation district or archeological site) located at Fort Drum sustains damage, the incident shall be reported and a reasonable effort shall be made to identify the responsible parties, if any, and to repair or replace the damaged resource or in some

way mitigate its loss. In the event that some failure of this process occurs, the following procedures will be implemented.

Procedures

Damage to Archaeological Sites

- 1. Incidents involving protected cultural resources will be reported immediately. When a site has been damaged, the CRM or a CR staff archaeologist, who meets the applicable standards included in 36 CFR 61 Appendix A, will review the archeological site records and visit the site. The archeologist will make a preliminary determination of the potential eligibility of the archeological site for inclusion in the NRHP and assess the damage to the site.
 - a) Where the damage is determined to be slight, where the damage has occurred to a deposit not in situ, or where the archeological site has been determined potentially not eligible for inclusion in the NRHP, the CRM may determine that the damage sustained has had no effect or no adverse effect on the site. Fort Drum will record a finding of no effect and report each incident in the Annual Report. The evidence to support such a finding and a short description of the circumstances will be included in the Annual Report required under SOP #10.
 - Where the damage to the archeological site is determined to be severe and the CRM feels there is evidence that the archeological site may have been potentially eligible for inclusion in the NRHP if not for the damage it had sustained, or if the archeological site had previously been determined to be eligible for inclusion in the NRHP, the CRM will: a) contact the OIC of the offending unit or the DOC if a contractor is at fault, b) request that the activity cease immediately, c) request that Range Control seal off and preserve the area with vehicles left in place if practical, and d) begin internal investigation resulting in a special report to the NYSHPO and the Partner Nations documenting the circumstances of the damage, its extent and effect, within 30 days of the incident.

- 2. In cases where the damage involves multiple sites or willful violation of regulations by Army personnel, the CRM will notify DPW and Garrison Commander by memorandum. In most cases, damage to marked sites will be considered intentional and will be handled as such and/or potentially as an ARPA violation. At the discretion of the Garrison Commander, the SHPO and the Partner Nations may be invited to be a party to the investigation of the incident.
- 3. All NHRP potentially eligible sites will be marked using "Keep Out by Order of the Commander" Signs, possibly combined with Seibert Stakes.

Damage to Above Ground Properties

When an above ground property that is 50 or more years old sustains willful or unintentional damage, and that property is found to be either included in the NRHP, determined to be eligible for inclusion in the NRHP but not yet registered, or has not been previously evaluated to determine its eligibility for inclusion in the NRHP, a member of the Cultural Resources Staff will visit the property to record and assess the damage to the property and to prepare a preliminary evaluation to determine the property's eligibility for inclusion in the NRHP.

- Where damage is slight and/or does not affect the features of the property which contribute to the property's historical significance, the CRM may determine that the damage had no effect or no adverse effect on the property. Fort Drum will document these actions in the Annual Report.
- b) Where damage is severe, the CRM may determine that the damage had an adverse effect on the property. The CRM will prepare a report to the SHPO and the Partner Nations, in accordance with the requirements of 36 CFR 800. The report will provide documentation of the incident including the circumstances which caused the damage to the property, and the nature and extent of the damage sustained by the property. The report will be submitted to the NYSHPO within 30 days of receiving the report of damage. Fort Drum will document these actions in the Annual Report.
- c) In cases of either partial or total demolition of a historic property the CRM may determine that the damage had either no effect, no adverse effect or an adverse effect on the property dependent upon whether the property had been

NRHP evaluated, determined eligibility or NRHP eligible. The CRM will prepare a report to the SHPO, in accordance with the requirements of 36 CFR 800. The report will provide documentation of the incident including the circumstances which caused the damage to the property, and the nature and extent of the damage sustained by the property. The report will be submitted to the NYSHPO within 30 days of receiving the report of damage. Fort Drum will document these actions in the Annual Report.

Emergency Actions

No requirement of a PA, MOA or SOP shall be used to delay immediate actions that are required in an emergency to protect health and human safety or avoid substantial loss of building fabric. "Emergency" is defined here as an immediate and imminent threat to life, health, or property.

Where, in the opinion of the U.S. Government senior technical representative at the site, emergency exists, as defined above, all reasonable and prudent efforts shall be made to avoid or reduce any adverse effects to historic properties which may be caused by the implementation of emergency actions. The action shall be documented in writing, per the procedures noted above. Fort Drum will include documentation of these actions an Annual Report.

SAFETY IN THE FIELD FOR ARCHAEOLOGISTS AT FORT DRUM

[Reference: Health and Safety for Archaeologists and CRM Professionals by Pan American Environmental, Inc, 29 CFR, as amended, American National Standards Institute D6, as amended, U.S. Army Military Munitions Response Program and UXO Safety Education guidelines]

Background

Any work in the field has the potential for a number of dangerous and hazardous threats to be encountered. In addition to the environmental dangers/ threats Fort Drum has been an active military installation since 1906 and saw significant expansion and training during World War II. Locations of impact areas have changed over the years, and as a result, unexploded ordnance poses a problem throughout the installation. Whenever civilian and military activities share acreage, there is the potential for an accident.

Objective

CRM professionals perform a wide variety of work activities in multiple environments including historic buildings, laboratories, building foundations and military installations. Health and safety training is beneficial to both employers and employees for many reasons including lost time incidents, injuries or illness.

Archeological activities at Fort Drum routinely involve excavations by hand requiring extensive physical labor and time in the field. Fort Drum archeologists are at risk from diseases caused by animals and insects as well as physical hazards. OSHA regulations are in effect at cultural resources projects and if violated could result in citations and fines for violations.

Fort Drum is the home of the 10th Mountain Division (Light Infantry). In addition, this installation is the location of extensive National Guard field training, serving Guard units throughout the eastern United States. Soldiers are training on a daily basis using various weapons systems across the installation. Although live fire exercises are contained within specific ranges, overland movement exercises and other forms of training pose a danger to civilian lives. In addition, civilian activities like hunting and logging pose a hazard to field technicians.

Policy

It is the responsibility of the Fort Drum CRM to inform all CRM personnel and contractors of their responsibilities regarding safety to make certain that no unnecessary, life threatening risks are taken. It is also the responsibility of the Fort Drum CRM to guarantee that all necessary safety procedure information is offered to all CRM personnel working in Fort Drum training areas. The Fort Drum Cultural Resources Program will ensure that:

- No staff member will be required or instructed to work in surroundings or under conditions that are unsafe or dangerous.
- A cultural resources supervisor will serve as the Safety Officer (SO) for each
 project that potentially involves physical, chemical and biological hazards. In
 cases where a potential for soil contamination or unexploded ordnance (UXO)
 exists, the SO will instruct or arrange for safety instruction for staff members.

Procedures

General Procedures for all activities on Fort Drum

- 1. All access to the training areas will be coordinated with Range Control.
 - a. All personnel entering training areas will check in with the Range Control and will provide accurate destinations for the Range Board.
 - Any change in location in the field will be coordinated through Range Control.
 - All personnel coming in from the field will take themselves off of the Range Board.
 - d. Cultural resource personnel will be provided with adequate communications equipment in order to be able to contact the Range Control radio room or central office staff at all times.
 - e. All cultural resource vehicles will have range passes at all times.
- 2. The cultural resources staff will be proactive in addressing other safety issues with personnel in the field.

- a. Cultural resource personnel will not exceed vehicle speed limits in the training areas.
- b. Cultural resource personnel will wear blaze orange in the field at all times.
- c. Central office staff will be responsible for providing weather advisories to cultural resource supervisors in the field.
- d. All cultural resource personnel entering training areas on Fort Drum will be briefed on the potential for encountering unexploded ordnance and appropriate procedures to follow in this event.
- e. Cultural resource personnel will work in teams of two, at minimum, in the field at all times.
- f. All personnel working in the training areas will make sure that staff members in the office know where they are. All field personnel will check in with the office contact when they come in from the field.

Trenching and Excavation

There are a wide variety of potential health and safety hazards associated with excavations. OSHA requirements for trenching and excavation are contained in 29 CFR (P) 1926:650-1926.652.

Basic minimum excavation requirements include:

- 1. A project-specific excavation plan should be developed for all projects where trenching or excavations are planned.
- 2. Personal protective equipment including hard hat, safety glasses and steel-toe work boots may be required.
- 3. Sloping, shoring or some other equivalent means should be utilized, as required.
- Underground utility locations should be checked and determined prior to initiating excavations, this is especially important on cantonment.
- A minimum safe distance of 15 to 25 feet should be maintained when working around overhead high-voltage lines.

- Excavations five feet or more deep will require an adequate means of exit, such as ladder, ramp or steps located so as to require no more than 25 feet of lateral travel. Under no circumstances should personnel be raised using heavy equipment.
- Personnel working around heavy equipment, entering a construction site or logging
 operational area will wear a blaze orange or yellow vest, blaze orange hard hat and steeltoe work boots. Safety glasses may also be required.
- Excavation work on or adjacent to highways or streets requires signals, signs or barricades that conform to the requirements of the current American National Standards Institute (ANSI) D6.1, Manual on Uniform Traffic Control Devices for Streets and Highways. Flag persons should be provided when signs, signals and barricades do not provide adequate protection.
- Personnel should be safely located in or around the trench and should not work underneath loads handled by lifting or digging equipment.
- CR personnel should not work in excavations that have accumulated water or where water is accumulating unless adequate precautions have been taken.
- Safety harnesses and lifelines should be worn be personnel entering excavations that
 qualify as confined spaces. Regulations pertaining to confined spaces are found in 29
 CFR 1910.146.
- Never leave test units open and unattended. Open test units should be flagged off with bright flagging and/or surrounding by fencing. Excavations should be backfilled as soon as possible when completed.

Traffic and Motor Vehicle Safety

Traffic and motor vehicle safety refer to two distinct areas: safety while driving and safety associated with working near or alongside motor vehicles. The following motor vehicle safety procedures are to be followed by all field personnel:

- Assigned drivers of rental or government vehicles must have a valid driver's
 license and should have received all instruction in the safe operation of multipassenger vehicles (including safety checks of the vehicle prior to operation).
- Personnel shall not mount or dismount moving vehicles.
- Personnel shall not ride in the bed of any vehicle.

- Seatbelt use is mandatory.
- Drivers shall not use cell phones, even those with hands free devices, while operating a vehicle.
- Stay with the vehicle if it breaks down and wait for help to arrive. Do not attempt to walk to get help.
- A first aid kit and flares are to be carried on all vehicles.

Personnel will observe all pedestrian and vehicle rules and regulations. Extra caution will be observed while driving on unpaved roads and driving in reverse.

Injuries and Workmen's Compensation

- All injuries in the field will be reported to a supervisor at once.
- Injured personnel will fill out a workmen's compensation form and submit it to their employer within 48 hours of the injury.

Unexploded Ordnance

Unexploded military ordnance (UXO) results from the military's use of live-fire training. Ordnance refers to tanks, helicopters and ammunition. Unexploded ordnance includes ammunition and explosives such as bullets, grenades, mines, bombs, missiles and other explosive devices. Most military munitions contain some form of energetic material (propellants, explosives, or pyrotechnic mixes). When military munitions do not function as intended during use, they become unexploded ordnance or UXO. Munitions should never be touched, disturbed or moved because they can function (explode) and cause serious injury or even death. Only trained military personnel will identify munitions found in the field.

Fort Drum Cultural Resource personnel will attend training on being able to recognize UXO in the field. All CR personnel will follow Army protocol for UXO which is:

RECOGNIZE, RETREAT, REPORT

Laboratory Safety

Injuries to archeologists occur not only in the field but in the office and laboratory as well. Cultural resource and archeological laboratory activities involve cleaning, examining, describing and curating artifacts with little, if any, use of hazardous materials. While working in the Artifact Curation Facility cultural resources personnel should follow all written guidelines that are included with any potentially hazardous material that is used during the curation process.

CURATION OF AND ACCESS TO ARCHAEOLOGICAL COLLECTIONS AT FORT DRUM

[Reference: 36 CFR §79, Curation of Federally Owned and Administered Archaeological Collections, AR 200-1]

Objective

This goal of this SOP is to provide guidelines for accessioning and pre-accession discarding, as well as access to collections for research purposes.

The Fort Drum Artifact Curation Facility accepts for accessioning all new archaeological collections and associated documents collected as part of Fort Drum's Cultural Resources Management Program activities or are directly related to the history and prehistory of the immediate Fort Drum area. Archival material such as historic photographs, family histories and land deeds will also be collected in association with the continued research of the area, specific research projects or as part of oral history interviews in order to expand the Facility's historical knowledge of the North Country region. Collections will be developed for use in exhibits, education programs and public outreach programs, as well as, made available for research by outside scholars and students. Collections development and use will be balanced with preservation needs and available resources. Additional reference material will be added to the library collection when possible through both purchases and donations.

The Fort Drum Curation Facility develops its collections through field collections conducted by the Cultural Resource Program and Colorado State University's Center for Environmental Management of Military Lands (CSU-CEMML) fieldwork, through the transfer of collections from another facility or museum; through donations or gifts; from archival research and oral history interviews; and through purchase.

The curation procedures are in accordance with AR 200-1, 36 CFR 79, and NAGPRA.

Items that are of no diagnostic value are to be discarded either immediately in the field, or in the case of artifacts in storage, prior to accessioning. The items that will be discarded are to be

properly examined and noted on a special "Discard Log" with exact amount or weight and description. The suggestions provided in Legacy Resource Management Program 16-789 are included in this SOP.

After careful consideration is given to retaining representative samples, some materials may be discarded prior to curation. Record materials being discarded in a separate catalog record. The following materials may be discarded:

- 1. Noncultural or unmodified rock
- 2. Masonry materials including brick, cement, mortar, limestone (keep small sample)
- 3. Slag, cinders, and coal
- 4. Other bulky, redundant, or non-diagnostic materials lacking either secure archaeological context or research applications.
- 5. Nails missing any identifying features such as nail head, only a sample of each size nail to be kept (square cut and wire)

An accurate written record of the collection has to be kept including the date of excavation, descriptive inventory sheet with information about the items, curation number and if necessary supplemental information and photographs.

Artifacts that are accessioned should be made available for research upon request.

Artifact Processing

1. Cleaning

All artifacts should be cleaned and stabilized upon arrival at the curation facility, except in instances where an uncleaned condition would facilitate a particular form of analysis. Items requiring specialized conservation measures will be considered on a case-by-case basis in the lab and special arrangements will be made at that time. Artifacts should be cleaned with water or dry brushed. Wash only those materials that will not deteriorate or where cleaning with water will not destroy archaeological evidence (e.g., carbon deposits, slip on pot sherds, etc.). Artifacts, specimens or samples that require special care (e.g., which must not be washed or otherwise

cleaned or processed) should be clearly separated from other materials. Pre-historic artifacts should never be cleaned with water.

2. Sorting

The artifacts are to be sorted by site number and provenience and analytical categories will be further subdivided within each category. In cases where only a small volume of the recovered material is analyzed in detail, the diagnostic and non-diagnostic materials should be separated. The material that is determined to be non-diagnostic will be discarded prior to accessioning.

3. Accession and Discard Procedures

All artifacts must be marked with accession numbers supplied by the principal investigator or designated individual, except in cases where lot accessions or an alternative accession system have been authorized in advance. Accession numbers must be marked on the exterior of boxes, bags, and other containers in permanent, archival ink; legible acid-free paper tags are to be inserted into bags along with the artifact. These tags are to have the accession number, a description of the item, the excavator's initials, as well as the date of excavation noted in archival ink. The accession number is to be recorded on the accession log, along with a detailed provenience information and item description. Once the entire site is curated the records are then to be enter into the database and the paper-record filed as well.

The discarded artifacts have to be logged on a separate discard-artifact sheet, if the case of biohazardous artifacts, such as moldy fabrics, the item is to be photographed prior to disposal. Items that are already accessioned, even if found to be non-diagnostic, will be kept. At this time Fort Drum CRP is not deaccessioning artifacts, unless required by regulation in the case of contamination.

Access to the Collection

The collection should be made available to qualified researchers upon written request to the CRM. In special cases artifacts can be loaned to the researcher or research facility with a written loan agreement detailing length of loan, purpose of loan and a detailed item description. The loan of any artifact has to follow existing regulations ARPA Section 9 and NHPA Section 304.

In accordance with 36 CFR 79, Fort Drum's archeological collections and associated records are available for scientific, educational, and religious uses, subject to such terms and conditions as are necessary to protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection.

Any resulting exhibits and/or publications shall acknowledge Fort Drum as the curatorial facility and the U.S. Army as the owner and administrator of the collections. A minimum of five copies of any resulting publications including exhibition supplementary materials shall be provided to the CRM. All outgoing loans of Fort Drum's materials require execution of written loan agreements.

APPENDIX A

REGULATIONS, LAWS, and EXECUTIVE ORDERS

FEDERAL REGULATIONS

Advisory Council on Historic Preservation (ACHP), Protection of Historic Properties (36 CFR 800)

Outlines how Federal agencies carry out their consultation responsibilities under Section 106 of the National Historic Preservation Act. In it are defined the roles of the Advisory Council on Historic Preservation, the State Historic Preservation Officer, the Tribal Historic Preservation Officer, and interested parties.

American Indian Religious Freedom Act of 1978 (AIRFA)

Protects and preserves traditional religions of Native Americans. AIRFA applies the First Amendment guarantee of religious freedom to Native Americans. Native American religious practices that may affect the Army involve access to sacred sites, use and possession of sacred objects, and freedom to worship through ceremonies and traditional rites.

Antiquities Act of 1906, 16 USC 431-433; 34 Stat. 225

This Act establishes the protection of archeological materials on lands owned by the U.S. Federal Government. The Act sets up penalties for the unauthorized collection or excavation of historic or prehistoric ruins or monuments situated on federal land. The first U.S. law of its kind, it provides protection for all historic and prehistoric resources on federal lands and prohibits excavation or destruction of such antiquities without the permission (Antiquities Permit) of the secretary of the department that has the jurisdiction over those lands. This act was the first national historic preservation policy. This Act empowers the president to set aside historic landmarks, historic or prehistoric structures, or other objects of historic or scientific interest on lands controlled by the federal government as national monuments. The federal agencies assigned to oversee these monuments are required to offer proper care and management of the resources, which includes caring for the objects collected from sites in a museum so the public can view them.

Archeological and Historic Preservation Act of 1974 (AHPA), 16 U.S.C. 469-469c

AHPA makes federal agencies responsible for mitigating the damage caused by their actions to important archeological sites. It is also known as the Archeological Recovery Act and the Moss-Bennet bill. The AHPA required that Federal agencies provide for "...the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or destroyed as the result of...any alteration of the terrain caused as a result of any Federal construction project of federally licensed activity or program (Section 1)."

Archeological Resources Protection Act of 1979 (ARPA), 16 USC 470aa-470mm, Public Law 96-95, as amended

This law was enacted to, "...to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals (Sec. 2(4)(b))." The main focus of ARPA is on regulation of legitimate archeological investigation on public lands and the enforcement of penalties against those who loot or vandalize archeological resources. ARPA substantially increased the penalties that can be levied against convicted violators. The original statute and, especially the amendments to it in 1988, provided authority to Federal officials to better manage archeological sites on public land. ARPA also provides for criminal penalties for those who knowingly loot, or damage federally owned archeological properties.

Council on Environmental Quality, Regulations Implementing the National Environmental Policy Act (40 CFR 1500-1508)

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

Department of the Interior, Curation of Federally Owned and Administered Archaeological Collections (36 CFR 79)

Provides regulations for the curation and care of federal archeological collections. Establishes the procedures and guidelines to manage and preserve collections, including objects and associated records under the authority of the Antiquities Act (16 USC 431-433), the Reservoir Salvage Act (16 USC 469-469c), NHPA (16SC 470h-2), or ARPA (16 USC 470aa-mm). Provides guidelines for acceptable access and use of collections, inventories, and inspections. 36 CFR 79 is the first set of regulations to produce standards for determining a viable repository for federally-owned and administered archeological collections.

Department of the Interior, Determinations of Eligibility for Inclusion in the National Register of Historic Places (36 CFR 63)

Assists federal agencies in identifying and evaluating the eligibility of properties for inclusion in the National Register.

Department of the Interior, National Historic Landmark Program (36 CFR 65)

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

Department of the Interior, National Register of Historic Places (36 CFR 60)

Sets forth the procedural requirements for listing properties on the National Register and authorizes the Secretary of the Interior to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering and culture.

Department of the Interior, Preservation of American Antiquities (43 CFR 3)

Places responsibility for ruins, archeological sites, historic and prehistoric monuments and structures, objects of antiquity, historic landmarks, and other objects of historic and scientific interest on the Secretaries of Agriculture, Defense, and Interior on federal lands that fall under their respective jurisdictions. Sets forth the types of permits that may be granted, to whom, and restrictions and requirements for authorized organizations who have obtained a permit for the

examination of ruins, the excavation of archeological sites, and the gathering of objects of antiquity.

Department of the Interior, Supplemental Regulations [per ARPA] (43 CFR 7)

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

Department of the Interior, Waiver of Federal Agency Responsibility under Section 110 of the National Historic Preservation Act (36 CFR 78)

Authorizes the Secretary of the Interior to promulgate regulations under which the requirements in Section 110 may be waived in whole or in part in the event of a major natural disaster or an imminent threat to the national security.

Department of the Interior, the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68)

Provides guidelines for the treatment of historic properties. These guidelines include standards for preservation, rehabilitation, restoration, and reconstruction projects.

Historic Sites Act of 1935, 16 USC 461-467

Declares that it is a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States. It authorizes the Secretary of the Interior to obtain information, survey, conduct research, maintain, and preserve sites with archeological significance. This Act also established the National Park Service Advisory Council.

National Environmental Policy Act (NEPA), 42 USC 4321-4370c

Compels informed decision-making by federal agencies and their departments by requiring the systematic consideration of direct, indirect and cumulative environmental impacts of the implementation of proposed actions and involving the public in the decision-making process. As

our basic national charter for protection of the environment, the National Environmental Policy Act (NEPA) establishes policy, sets goals (Section 101), and provides means (Section 102) for carrying out the policy. Section 102(2) contains action-forcing provisions to make sure that federal agencies act according to the letter and spirit of the Act. NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.

National Historic Preservation Act of 1966 (NHPA), as amended, 16 USC 470 et seq.

The National Historic Preservation Act of 1966 (NHPA) is the law under which much of contemporary American archeology is conducted for environmental review purposes. It strongly supports historic preservation activities and programs, including archeology. The NHPA enables archeological sites to be listed on the National Register of Historic Places. The NHPA allows for the expansion and maintenance of a national register (Section 101), requires all federal agencies to take into account the effects of their actions on the nation's historic properties (including archeological properties) (Section 106), and directs federal agencies to assume responsibility for the preservation of historic properties which are owned or controlled by such agency (Section 110). It requires that all federal agencies provide the Advisory Council on Historic Preservation with the opportunity to comment on any undertaking that might affect a property listed on, or eligible for, the National Register. It notes that the historical and cultural foundations of the country should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.

Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), 25 USC 3001-3013

NAGPRA specifies special treatment for Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA stipulates that illegal trafficking in human remains and cultural items may result in criminal penalties. NAGPRA has two major purposes. One purpose is to require that federal agencies and museums receiving federal funds inventory holdings of Native American funerary remains and funerary objects. The second purpose is to give Native American burial sites greater protection. NAGPRA requires that Indian tribes and Native Hawaiian organizations be consulted when archeological investigations are anticipated, or when cultural items or human remains are unexpectedly uncovered.

Public Buildings Cooperative Use Act, 40 USC 601a, Public Law 94-541

Directs the Administrator (of the General Services Administration) to acquire and utilize space in suitable buildings of historic, architectural, or cultural significance, and to encourage public access to, and community use of public buildings for cultural, educational and recreational activities. The Administrator must consult with Governors, other appropriate officials, and community leaders when necessary.

EXECUTIVE ORDERS

EO 11593 - Protection and Enhancement of the Cultural Environment

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

EO 13287 - Preserve America- Federal Real Property Management

Ensures that federal real property resources are treated in accordance with their value as national assets and in the best interests of the Nation's taxpayers. Provides for consistent federal policies regarding the acquisition, management and disposal of properties. Requires all executive departments and agencies to develop internal policies regarding effective use of real property and annual real property management improvement plans.

EO 13175 - Consultation and Coordination with Indian Tribal Governments

Reaffirms the unique legal relationship between the United States and Indian tribal governments. Stresses that federal agencies maintain regular and meaningful collaboration with Indian tribal governments when formulating policies that would uniquely affect such governments being guided by the principle of respect for their self-government and sovereignty.

DEPARTMENT OF DEFENSE REGULATIONS

DOD American Indian and Alaskan Native Policy

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

DOD Instruction 4715.3: Environmental Conservation Program

Promotes DOD wide conservation program cooperation to guarantee continued access to land, air, and water resources for realistic military training and testing while ensuring that the natural and cultural resources on said land, air and water continue to be sustained for future generations. Includes the requirement that all installations have an Integrated Natural Resources Management Plan (INRMP) and/or an Integrated Cultural Resources Management Plan (ICRMP).

Protection of Archeological Resources (32 CFR 229)

Establishes uniform definitions, standards and procedures for federal land managers to provide protection for archeological resources. See SOP #3 for details on the procedures for ARPA compliance.

Overseas Environmental Baseline Guidance Document (OEBGD)

Provides detailed guidance for environmental management in situations where the US DoD is in a position of responsibility within a host nation.

PRESIDENTIAL MEMORANDUM

Government-to-Government Relations with Native American Tribal Governments (White House Memorandum, Dated 29 April 1994)

Reiterates the federal government's relationship with Native American tribes as one of "government-to-government."

ARMY REGULATIONS

AR 200-1

This is the Army policy written to enable CRMs responsible for federal lands to meet all legal compliance requirements while supporting the military mission. AR 200-1 is the revision of the previous policy AR 200-1.

INTERNATIONAL AGREEMENTS

1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict (1954 Hague)

Provides a definition of cultural property and outlines requirements for cultural property protection during deployments and conflicts.

APPENDIX B

SITE SUMMARIES

SITE SPECIFIC MANAGEMENT PLAN

SITE SUMMARIES

Introduction

The Fort Drum Cultural Resources Program classifies the site inventory by cultural context divided into; Prehistoric, Contact Period, French Military Incursion (the DeLery Expeditionary Force against Fort Bull 1756, James LeRay and His Estate, Farmsteads Established by European Settlers, Historic Villages, Sites Associated with Rural Industries, Sites Associated with Rural Social Gatherings, Vacation Cottages at Indian and Narrow Lakes, and Military History. The Prehistoric Sites are listed here in great detail given the judgment calls required in terms of their future protection and management and their importance to Fort Drum's Native American consultation program. When Fort Drum expanded in 1985, Louis Berger & Associates completed a substantial archaeological survey that focused on historic occupation of Fort Drum lands. Their reports offer detailed background research on the farms and villages that were located on the land that eventually became Fort Drum. They completed data recovery on a series of farmsteads as a form of mitigation for that type of site and set aside several examples for protection. See also Farmstead Correspondence with the NYSHPO in Appendix E. They also completed HABS HAER documentation for the two remaining iron furnace sites at Lewisburg and Alpina and provided a detailed report concerning the LeRay Mansion Historic District.

Five villages lost during the expansion of Fort Drum. LeRaysville, Sterlingville, Lewisburg, Alpina, and Woods Mill were documented during the Louis Berger investigations and were subsequently set aside as National Register listed archaeological districts. LeRaysville is located adjacent to the park at Remington Pond in the Cantonment and is managed as an historic area walking tour. Structural remains at Sterlingville have been protected with geotextiles and fill and this village is managed as an historic area, no digging, training asset. Lewisburg is in the process of being similarly protected. Additional cross roads communities like Nauvoo, Reedville, and North Wilna were also lost, and their contributing properties are managed as individual sites. The 11 cemeteries associated with these villages are protected and maintained to some extent even though they technically are not located on Army land.

During the 2000 and 2001 field seasons, the current survey program completed an intensive study of sites falling into the categories of rural industries and places for social gatherings. Rural industrial sites include but are not limited to sugar bushes, mills of various types, tanneries, black smith shops, toll gates, limekilns, quarries, and cheese factories. Gathering places include schools, post offices, taverns and churches. The resulting inventory has enabled the program to narrow down consideration for examples of type sites that can be considered for special

protection. A study of Fort Drum's archaeology related to military training was undertaken during the 2012 field season. Military sites include remains of movers dating to the 1960s; a World War II aerial gunnery training area, FDH 1341 (2011.044); World War I trenches; World War II bunkers and numerous other features across the training areas.

It is important to note that some sites were occupied by different people at different times or may have changed function. For example, a prehistoric site could be resettled as a farm by European immigrants. We refer to sites of this nature as "multi-component." The most dramatic example of a multi-component site on Fort Drum is FDH-512 / FDP 1198 commonly referred to as Ford Farm. This site features 8000 year old hearths, and artifacts and features dating to the 17th century literally topped off by a 19th century farmstead. It is described in more detail below.

Please note that the sites are organized by Training Area, divided by cultural context, and then listed in the approximate order in which they were discovered.

Cantonment and Airfield Landform

The Fort Drum Cantonment is located on the western edge of the Pine Plains glacial deltaic landform and its southern border features sandy bluffs which are elements of the north shore of the Black River on its downstream course from the Great Bend. There are two creeks that cross the cantonment that may be components of portage routes connecting the Black River system with the Indian River system. One is West Creek that runs along west and northern sections of the cantonment. The other is the Pleasant Creek and its tributaries which offer a more direct route to the Great Bend of the Black River from the Indian River in Evans Mills and which is noted on an 1822 map of the area. Most of the cantonment consists of sandy soils although there are also outcrops of Ordovician Trenton limestone. Spring water emerging from the landform here is by nature extremely high in magnesium.

Prehistoric Sites

FDP 1194 Wheeler-Sack Airfield

A possible prehistoric site, FDP 1194, was located during Phase IB reconnaissance for project 2001.087. Evidence for this site was a large scatter of fire-cracked rock and some surface debitage. No further phase IB investigations provided any indication that the deposits would have the integrity or significance to make them National Register eligible. No further investigation was recommended prior to opening the area for potential airfield construction.

FDP 1 (NYSM 3450) Cantonment

This is site is a Haudenosaunee Village, referred to by some archaeologists as St. Lawrence Iroquoian. It lies between the West Branch of the Black Creek and the Black River located on a sandy plateau area. The land south of the site rises abruptly in elevation creating a ridgeline overlooking the site. Peter Pratt and Associates conducted the first excavations at this site in 1960's, and his documentation is extremely poor. Following Pratt's excavations, Louis Berger and Associates completed stabilization of the areas Pratt left exposed and completed detailed mapping of the site. Significant subsurface cultural remains were recovered including prehistoric ceramics associated with both Haudenosaunee and Point Peninsula Cultures, buried hearths, storage pits, post molds, palisades, lithic material, faunal material, bone tools, and pipes. Recent review of the archived artifacts, in the Artifact Curation Facility, has recognized a need to re-evaluate the site and its cultural contexts to critically assess the possibility of a multicomponent site. This site is considered NR eligible. However, portions of the site were so damaged by Pratt's activity that reburial of repatriated human remains can take place at these locations without any adverse effect to the elements of the site contributing to its eligibility. MG Oates, in 2009, invited the Onondaga Nation to use the site for safe repatriation if needed. See also Appendix E. Fort Drum has also installed a personnel gate for relatively easy access to the site for use during visits from Native Americans. The cultural resources program has a key to this gate in addition to the Military Police. Otherwise, the site is relatively inaccessible. It's location on a floodplain adjacent to a beaver meadow provides additional protection in that it should never be identified as an area appropriate for any form of development. There are known burials on this site, and elders of the St. Regis Mohawk Tribe performed a ceremony for the ancestors there in 2001.

FDP 2 Cantonment

First identified by the Louis Berger survey, the site was located in the northeast corner of what is now New Cantonment. The site was described as a lithic scatter with no diagnostic artifacts and said to be a potential village site. The site may be the village site described by Ephraim Squier in 1850 as a palisaded village located one mile due south of Evans Mills, NY. Berger had recommended it for Phase I investigation but there are no artifacts in the collection, no precise coordinates and no indication that they carried out any testing there. Former crew chief, Mr. Francesco Scardera, has continued research into this site, and he discovered that Grandfather Timmerman, owner of the farm located one mile due south of Evans Mills, was known for his extensive artifact collection, recovered from his plowed fields. Mr. Timmerman's obituary even mentions this collection. As a result, it is still very likely that there is an additional Haudenosaunee Village site located within the Fort Drum cantonment fence. In May of 2019 (Project 2019.024) additional field reconnaissance was completed, looking closely in this relatively inaccessible portion of the cantonment. However, a wetlands project may have backed water into the area, and the former agricultural fields are currently overgrown with nearly impenetrable shrub species. Should ITAM or the Natural Resources Program ever remove vegetation in this portion of post to make it more available for training, the CRP should follow with intensive survey prior to any form of ground disturbance.

FDP 10-1 (NYSA 045-11-0108) Cantonment

First identified by the Louis Berger survey, the site was located in the central section of what is now New Cantonment. A Phase I survey was performed and the only artifact listed is a single utilized flake. Phase II testing was not recommended. The site has since been destroyed by the construction of New Cantonment. No further testing is recommended.

FDP 10-2 (A045-11-0109) Cantonment

First identified by the Louis Berger survey, the site was located in the central section of what is now New Cantonment. It is listed as a camp/lithic scatter. The artifact assemblage consisted of 20 flakes but since these artifacts are missing or lost, no determination can be made of their type. Given this and the fact that a Phase II was not performed, further testing is recommended to relocate and evaluate this site. The area of the site remains undisturbed by construction of New Cantonment.

FDP 83-35 Cantonment

First identified by the Envirosphere survey, this site was located in the southeastern part of Old Cantonment near what is now called Officer's Loop. It is described as a lithic scatter with no diagnostic artifacts. A Phase I was conducted but no Phase II was recommended. There is some confusion as to what artifacts and features were discovered in what locations during this project. Since this site is in what appears to be an undisturbed area of Cantonment, further testing in order to locate and evaluate it are recommended prior to consideration for NRHP.

FDP 83-45A Cantonment

First identified by the Envirosphere survey, this site was located in the northeastern part of what is now New Cantonment along a tributary of Pleasant Creek. The site was described as a camp. A Phase I was performed and no Phase II was recommended. The artifacts are not listed. There is some confusion as to what artifacts and features were discovered in what locations during this project. Since this site is in what appears to be an undisturbed area of Cantonment, further testing in order to locate and evaluate it is recommended prior to consideration for NRHP.

FDP 83-60 Cantonment, "The Military Road Site"

First located during the Envirosphere survey, this site is described as a hamlet or semi-sedentary village dating to the Late Prehistoric (1550-1575 A.D.). Often this site is referred to as the Military Road Site (A045-11-0011; NYSM 3529). Both Phase I and II surveys have been completed there. The artifact assemblage consists of a large amount of chert debitage and

prehistoric ceramic sherds with decorations typical of Haudenosaunee pottery. One interesting aspect of the ceramic assemblage is that more than 20 styles of ceramic representing a wide regional area have been identified. Preliminary results of remote sensing surveys at this location indicate a possibility of at least one long house feature present.

The Military Road site appears to be located along an ancient pathway that could connect to Haudenosaunee Village sites known to have been located in the immediate vicinity of the modern Village of Black River, and potentially following through to the village site at FDP 1. Additional features in the immediate vicinity include cairns made of cobble stones that do not occur naturally in the landform. See also Site FDP 1214. Additional reconnaissance and mapping have yielded at least eleven additional cairns and documented the presence of a monumental pyramid shaped boulder surrounded by Mayapples, *Podophyllum peltatum*, which are a medicinal plant for Haudenosaunee people. Several additional features located across the modern road from the rest of the site appear to be piles of small stones placed on top of the crevasses in the limestone outcrops. Further testing would be necessary to evaluate these features and their relationship to FDP 83-60. Due to the increased possibility of an inadvertent discovery, NAGPRA SOP's and consultation agreements must be kept in mind when considering any type of ground disturbance in this area.

This area is not in demand for training, but it received serious consideration for leasing as part of Fort Drum's privatized or Residential Communities Initiative (RCI). As a result, the surrounding acreage was subjected to intensive Phase I survey in 2001 (Project 2001.026) and follow on with Test Excavation Units in 2003 (Project 2003.053). The CRP took a rigorous approach toward testing the area not just because of the proximity of Site FDP 83-60 but also because of reported discoveries of possible lithic quarries in the vicinity beginning in 1996. Chert nodules are evident throughout the exposed Trenton Limestone bedrock throughout this landform. The combination of Phase I survey with subsequent test excavation units yielded over 30,000 chert fragments requiring analysis. The CRP discouraged any further plans to develop the acreage, although only one diagnostic artifact was identified from this extensive assemblage.

The site is definitely NR eligible and is protected by signage indicating that it may be crossed by pedestrians only. The combination of tool material naturally occurring in the landform, its location along an ancient pathway, the presence of a known site with extensive artifacts and features surrounded by cairns and a monumental boulder makes the Military Road complex a candidate to be identified and protected as a ceremonial stone landscape.

FDP 1014 (NYSA 045-11-0179) Cantonment

First located by a State Game Protection official, the site was evidenced by a large lithic scatter on the surface of a bench along the Black River. The artifact assemblage is recorded as consisting of large bi-polar cores, shatter and other LeRay chert debitage consistent with a lithic reduction or quarrying site. The artifacts are missing. According to the location given by the original surveyor on a topographic map, this site is not actually on Fort Drum Military Installation property.

FDP 1085 Cantonment

Located during a Phase I survey of the area, the site lies between Military Road and West Creek. The site consists of what may be a prehistoric chert quarry and three positive shovel tests. The only artifacts present in the collection are two pieces of LeRay chert debitage and a possible granitequarrying tool. More intensive testing in this area has revealed the presence of large amounts of LeRay chert from both the surface and subsurface. LeRay chert outcrops naturally in this area. Further testing in 2004 led to the determination that there was no discrete site in this area. Based on the amount of chert recovered from these 12 shovel tests as well as on other surveys along Military Road and the findings of the Phase II testing at the adjacent quarry (2003.055), FDP 1085 appears to be a non-discrete part of the Military Road lithic resource procurement area and on its own would not constitute a National Register eligible site.

FDP 1086 Cantonment

Located during a Phase I survey of the area, the site lies between Po Valley Road and West Creek. The artifact assemblage consists of a single piece of LeRay chert debitage from a shovel test. Cruciforms at an unknown interval failed to yield any further cultural material. LeRay chert outcrops naturally in this area. Additional survey in the area has yielded a series of small sites which may be related to the accessibility of stone tool material, West Creek and the associated wetlands.

FDP 1087 Cantonment

Located during a Phase I survey of the area, the site lies just north of Military Road at the head of West Creek. Artifacts associated with the site include LeRay chert debitage. In 2003, the site was subjected to intensive test unit excavation and walkover survey and reconnaissance completed for the adjacent landform in preparation for survey of the area for potential privatized housing lease and development. The findings were that the lithic material present is low grade, easily fractured LeRay chert. Large quantities of chert are recovered, but no diagnostic artifacts are found in the assemblages. Soil strata in the controlled excavations show prior disturbance from plowing, a tree plantation, and military excavation of foxholes and trenches. As a result, the probability of significant cultural material being found in context at this location or in the vicinity is low.

FDP 1088 Cantonment

Located during a Phase I survey of the area, the site lies between the New York Central Railroad and NYS Route 342. The artifact assemblage consists of a single piece of Onondaga debitage from a shovel test. Cruciforms at an unknown interval failed to yield further cultural material. Due to the site's location just north of West Creek and the nature of the artifact, further testing is recommended in order to define the site boundaries prior to consideration for NRHP.

FDP 1089 Cantonment

Located during a Phase I survey of the area, the site lies just south of Military Road. The artifact assemblage consists of several pieces of LeRay chert debitage from a shovel test and its cruciform. More intensive testing in this area has revealed the presence of large amounts of LeRay chert from both the surface and subsurface. LeRay chert outcrops naturally in this area. Evaluation of shovel test data and actual artifacts will be necessary before determinations can be made concerning the eligibility and cultural status of any clusters of artifacts in this landform.

FDP 1091 Cantonment

Located during a REC survey, the site lies just inside the Fort Drum Military Installation fence in the easternmost corner of Cantonment along the Black River. Phase I survey yielded 42 pieces of debitage from shovel tests. Phase II excavations yielded a large amount of debitage, including cores. The site was first believed to be a LeRay lithic reduction site. Further analysis of the materials recovered revealed that much of the debitage is actually Onondaga chert. The site is considered eligible, and its perimeter that occurs inside of the installation boundary fence is posted and protected. The site was taken into consideration and avoided during the design of the Bomporto Bridge overpass project in 2015.

FDP 1092 Cantonment

First located during a Phase I survey of Cantonment, the site lies near a tributary that drains first into Remington Pond and then into Pleasant Creek. The artifact assemblage consisted of two pieces of Onondaga chert debitage from level two of a shovel test and one piece of unidentified debitage from the surface. Cruciforms at ten-meter intervals failed to produce further cultural material. Given the location of this site, further testing is recommended in order to determine its potential and define the boundaries prior to consideration for NRHP.

FDP 1158 Cantonment

First located during a Phase I survey of the area prior to proposed construction of an ice rink, this site was identified as a prehistoric chert quarry. The site lies on a limestone bluff over-looking Camp Drum #1, a Haudenosaunee village site. The site consisted of an area of limestone approximately 10 meters in length where chert inclusions had been removed from the surrounding matrix. Other chert inclusions were still visible in the limestone nearby. Only minimal subsurface testing was possible due to the rockiness of the area and no subsurface features were recorded. Further testing is required to determine if crevasses contain any cultural remains. This area should be monitored during any ground disturbing activity to avoid inadvertent discovery.

FDP 1159, FDP 1160 Cantonment

These sites were identified during Phase I survey for the installation of a buried fiber optic cable across Division Hill. Each number was assigned to a cluster of shovel tests and their cruciforms which yielded chert debitage. Later it was determined that the chert was LeRay which occurs naturally in this area and was, in this case, not culturally modified. The sites were judged not to be valid and the site numbers were retired. No further testing is recommended.

FDP 1179 Cantonment

Located during a reconnaissance of the area, the site lies partially in an eroding dune near the Black River in the southeast part of Cantonment. The artifact assemblage included LeRay and Onondaga chert debitage (primary, secondary and tertiary flakes and cores), burnt bone and prehistoric ceramic sherds recovered from the surface. Phase I shovel testing yielded large amounts of additional cultural material from all levels but especially from levels two and three. The decorated ceramic sherds seem to indicate a Point Peninsula context. Better definition of the site boundary and Phase II testing is recommended prior to consideration for NRHP, and proposed projects in the area need to take the proximity to this site into consideration.

FDP 1202 and 1203 Cantonment

FDP 1202 appears to be a fairly large, multi-component site with C-14 dates of 2740 +/-40 and 500 +/- 80 BP. Roughly 86% of the total flakes collected on the site are tertiary flakes. This number does not change significantly when the flakes are sorted by material type. This fact seems to indicate some type of work area where tools were being sharpened or refurbished rather than a lithic reduction site. Additionally, 6 scrapers and several utilized flakes and unifaces were recovered. The number of postmolds and burn features outside the area of the occupation floor may indicate the presence of drying racks or other animal-processing activities. The artifact assemblage from FDP 1203, 125m away, is almost the reverse of that at FDP 1202. It consists mainly of chert shatter, primary and secondary flakes and cores. The FDP 1202 findings support the theory that FDP 1203 was a satellite site for lithic reduction.

This site is a potentially eligible National Register prehistoric archeological site under Criterion D. FDP 1202 has been placed "Off Limits by Order of the Commander" and the surface protected by installation of Tensar geotextile. Further evaluation, including the completion of existing test units should be undertaken when time allows. Ground penetrating radar and the resistance meter should be used to map the compacted area that may be a living floor feature. The magnetometer could be used to try to identify hearths. Hearth features identified and left in situ could be used to provide a magnetic profile for hearths from this site. Remote sensing could be a very effective tool for mapping this site without further destructive excavation.

Phase II test unit placement at FDP 1203 was based on artifact concentrations from the Phase I survey, and it is possible that this site was removed in its entirety during the course of data recovery.

FDP 1204 Cantonment

During a Phase I survey in a housing expansion area, lithic cultural materials were found prompting further test unit investigations. The Phase II survey failed to yield diagnostic artifacts or intact features. This site is not eligible for protection or preservation due to lack of cultural material and evidence of disturbance, and the area was made available for construction.

FDP 1206 Cantonment

This site was located during a survey for a new railroad corridor (2003.039). The portion of railroad in question runs roughly east/west through the southern part of Cantonment. The spur passes close to several existing sites including the Haudenosaunee village known as Camp Drum 1 and the newly discovered FDP 1202. Due to the large amount of LeRay chert debitage excavated along baseline 6 transect 1 between STP's 16-29, the area was recommended for further evaluation.

Phase II excavations uncovered extensive evidence of burning, fire pits and post molds. C-14 analysis of a sample from Feature 3 Test Unit 1 returned a date of 770+/-60 BP making the site possibly an early phase of Haudenosaunee occupation. Although this date does not coincide with the date range for the Lamoka projectile point found in TU 1 and, in fact, was taken from below the provenience of the point, Feature 3 appears to have begun above the level where the point was found. The majority of the historic materials recovered came from the upper levels of the unit, although a piece of whiteware was found below the Lamoka point. Presumably, some disturbance took place during construction of the original railroad. It is also possible that vibration from passing trains may have caused some shifting of artifacts within the sandy matrix.

Hematitic concretions and stains, believed to be red ochre, were discovered in levels 3 and 4. Analysis by Juliean Van Nest, a NYSM geo-archaeologist, indicated that if the stains are the result of culturally introduced hematite, they have been in place long enough to become pedogenic (related to soil-building processes in the soil) features.

FDP 1206 has evidence of occupation spanning over 4000 years and should be considered potentially eligible for the National Register under Criterion D, its potential to contribute to new knowledge. FDP 1206 should remain protected pending further evaluation.

FDP 1209 Cantonment

This project was initiated to survey an area south and east of the Inn at Ft. Drum, which was to be used for additional parking. The proposed project area had originally been surveyed during the 1980s expansion of Fort Drum with negative results. However, a routine site visit located an outcrop of LeRay chert within the project area so it was decided that the new survey was necessary. During the Phase I investigation it was discovered that the site was in fact a large chert quarry. The chert quarry at the Fort Drum Inn required mitigation prior to initiation of construction to enlarge the parking lot. The mitigation included further excavation as well as alteration of the project design to minimize impact on the site. Concurrence with the mitigation plan and redesign was received from the NY SHPO. Phase II investigations required in the mitigation plan uncovered large amounts of lithic material, especially in the immediate vicinity of the quarry. Fragments of what appears to be a stone bowl were also recovered from one of the test units. The main portion of the quarry outcrop was protected through parking lot redesign. This area should remain protected. In addition, the parking lot was made smaller in order to avoid areas that may have more cultural material in the vicinity. No ground disturbing undertakings should take place adjacent to the parking lot without further evaluation.

FDP 1210 Cantonment

A holistic approach in 2003 resulted in the rediscovery of earthworks on Fort Drum, originally described by Ephraim Squier in 1848. Detailed comparison of Squier's description and historic sketch map compared with aerial photos, historic maps, oral histories, and ground truthing of historic features resulted in a very high probability that the observed earthworks are in fact the "lost" Squier site. Given the proximity of its location to Army Family Housing and proposed RCI Army Family community development, Fort Drum Cultural Resources has allocated a portion of its effort into making a positive identification of this location, determining its boundaries, and attempting to assess its potential significance. Phase IB investigation included a test unit where two chert flakes were recovered from the surface. In addition, a large bisection was excavated to reveal stratigraphy where an historic road had cut through the possible

earthwork. The bisection was analyzed by Dr. Julieann Vannest of the New York State Museum, and she found evidence of basket loading. She also took C-14 samples that yielded prehistoric dates for carbon inclusions in the soils deposited in the earthwork. Further evaluation of this site is required in order to determine the nature of the earthworks. More test units should be excavated based on findings from the close interval shovel test grid (2003.088). The portion of the landform that has not been tested should also be subjected to close interval shovel test grid. This feature was investigated in detail as part of a Master's thesis by Francesco Scardera in 2005.

FDP 1213 Cantonment

Phase I and II investigations of this area were conducted in 2002 in preparation for a proposed housing area. Due to the quality of the lithic material and the fact that this area is used for orienteering exercises and potential development, the site was further evaluated under project number 2004.117. An excavated hearth feature provided a date of 190+/-30. Overall, the site does not appear to meet the threshold of National Register eligibility.

FDP 1214 Cantonment

A cairn made of cobblestones was noted adjacent to a very highly compacted historic/current pathway. Julieann Van Nest, geo-archeologist of the New York State Museum was asked to rule out a natural source for the cobbles which do not appear to occur naturally in the landform. In her estimation, the cairn closely resembled turtle cairns known to be prehistoric in the American Midwest. There was no geological explanation for the placement of the cobbles, and the cairn is definitely not the result of historic land clearing. The placement also matches historical accounts of a contact period portage between the Black and Indian River systems in this general location using the Pleasant and West Creek drainages as a connection. The hypothesis that the cairn is prehistoric, possibly zoopomorphic, and could represent a trail marker should be tested further. The perimeter of FDP 83-60 has been expanded to protect this site. Further reconnaissance has resulted in identification of at least five additional cairns in the area along with a monumental glacial erratic surrounded by the medicinal plant May Apple. FDP 1214 will be incorporated into ceremonial landscape protected area.

FDP 1215 Cantonment

This site was located during routine shovel testing in preparation for the area to be used for housing. The original Phase I (2003.024) yielded large amounts of lithics, specifically LeRay chert shatter and secondary flakes. Three test units were excavated in 2004. Test unit placement was based on the locations of positive shovel tests. Test units 1 and 2 appear to have inadvertently mitigated the lithic scatter through data recovery as the artifacts seemed to be concentrated in the center of the two units. Test Unit 3 yielded very few obviously cultural artifacts. Based on these findings and on the fact that a 5m shovel test grid over the area yielded

only 1 additional positive shovel test (2004.014), no further evaluation is recommended for this site.

FDP 1216 Cantonment

FDP1216 was found along a survey baseline that produced seventy-four possible prehistoric lithic cultural materials from below the surface, mostly in the form of blocky LeRay chert debitage. Some Onondaga shatter was also recovered as well as some chert flakes. FDP 1216 raises the question of paleo re-deposition from sites along the proto Black River corridor given the fact that micro flakes in deep layers match the grain size of the soil matrix.

FDP 1219 Cantonment

This site was initially discovered during a phase I survey for MILCON. The site is located along the Pleasant Creek drainage and consists of several chert scrapers and possible post mold features. Radiocarbon dates suggest that the site represents a multi-component site whose timeframe straddles early Point Peninsula and Contact Periods. Artifact frequency and the lack of diagnostic tools suggest an ephemeral-type of camp. The lone archaic component (C-14 Dates =5770+/-40 BP) warrants further investigation. After further evaluation 75% of the "OFF LIMITS" area was reduced to the southeast corner bounded by the Tigris River Valley Road and Camp Hale Road.

FDP 1224 Cantonment

The site was discovered during Phase I survey of a walking trail proposed by the Residential Housing Initiative. The site is located adjacent to the new trail that runs between the corner of Conway and Po Valley to the former location of the 10th Mountain Division Monument on Mount Belvedere Boulevard. The artifact assemblage includes quartz flakes, a quartz drill, and another possible tool. The site was avoided during construction of the trail.

FDP 1236 Cantonment

The site was discovered during a Phase I survey for proposed MILCON. The site is located in a wooded area that is bisected by a small ravine that is part of the Pleasant Creek drainage. The site is situated between Oneida/Ontario Avenue, St. Lawrence Avenue, Sixth Street and seventh Street West. The artifact assemblage included quartz shatter, LeRay chert tertiary flakes, carbonized seeds, burnt bone and several sherds of Point Peninsula ceramics with assorted cordimpressed, linear stamp and rocker stamped patterns. The site was avoided during construction, and the adjacent storm water pond was designed to further protect the site in the case of flooding. The site is currently posted and protected.

FDP 1255 Cantonment

The site was discovered during a Phase I survey for a proposed MILCON. The site is located along St. Lawrence Avenue between 7th Street West and 8th Street West. The assemblage consists of a LeRay chert shatter, a LeRay chert cortex, an Onondaga chert tertiary flake, a possible drill of LeRay chert, a possible Onondaga chert tool and several post mold features. Due to construction in the adjacent area, the site has been stabilized with geo-textile and sterile soil. The site was also covered with topsoil and reseeded. A C-14 date of 730 +/-40 BP makes this site potentially important for better understanding of early Haudensaunee occupation of the area.

FDP 1256 Cantonment

The site was discovered during a Phase I survey for proposed MILCON. The site is located along the banks of the Black River, south of Hospital Lane. The assemblage consists of LeRay chert angular shatter, flake shatter, proximal flakes, quartz flake shatter, a LeRay chert unidirectional core and a uni-marginally retouched flake. This site is located outside of the Fort Drum boundary fence. Further investigation in the immediate vicinity of FDP 1256 (2008.029) provided an avoidance pathway for construction of storm water drainage for development of the 7th Engineer Battalion Complex.

FDP 1261 Cantonment

This site was discovered during a Phase I survey for a proposed fire station. The site is located along Ontario Avenue between 5th Street West and 5th Street Middle. The site consist of a small pile of limestone pieces and river cobbles that do not occur naturally in the surrounding landform. The site is potentially a prehistoric cairn. The site has been posted as off limits and the foot print of the proposed fire station was redesigned to avoid the site.

FDP 1266 Cantonment

The site was identified during a Phase I survey for a Residential Community Initiative (RCI) Parcel L for proposed housing construction. The artifact assemblage consisted of prehistoric materials in the form of LeRay chert shatter, a quartz flake, and two pieces of bone (1 burnt). The potential housing area boundary was redesigned to achieve site avoidance. Testing showed a discreet event horizon and possible cultural features. An area around the site measuring approximately 60 x 100m was placed off limits. This information was provided to RCI along with the recommendation that the area be avoided during any future construction.

FDP 1271 Cantonment (2500 Area)

This site was identified during survey for a proposed Zero Energy Building located near the corner of NYS Route 26 and the Munn's Corners Road. The artifact assemblage consisted of LeRay and Onondaga chert flakes and shatter recovered from ten shovel tests and their cruciforms. The site was determined to be eligible for the National Register. It was not marked off limits but a site boundary was established by mapping the positive shovel tests. The site has been taken into consideration during all further development of the nearby parcel for the new 10th Mountain Division and Ft. Drum Museum.

FDP 1272 Cantonment

This site was first identified during survey for Residential Community Initiative (RCI) Parcel L. The original shovel test and its cruciforms produced chert shatter with possible cultural modification (2009.011). Two test units (2009.044) produced more chert shatter and flakes and chert microshatter and microflakes, a possible chert core and a possible quartz thumbnail scraper. The amount of chert, both cultural and not, recovered seemed to be unusual for the area. Further evaluation was recommended. Two additional units (2010.027) were excavated and the materials recovered were similar to the original units. A possible chert scraper and some carbonized seeds were also found. Three possible post molds were recorded. FDP 1272 requires further testing to determine NR eligibility. The site was posted Off Limits by Order of the Commander. Foot Traffic Only, No Digging signs were added later.

FDP 1273 Cantonment

This site was identified during survey for proposed construction of an Air Support Operations Squadron Headquarters (ASOS) on Fort Drum (2010.006). Artifacts recovered from the original shovel test and its cruciforms included edge-modified quartz shatter and a possible quartz tool. Due to its proximity to the construction limits, further evaluation was recommended and performed the same year (2010.047). This test unit yielded a large amount of quartz flakes and shatter, the majority of which appeared to be cultural. Also recovered were 5 pieces of edge-modified quartz shatter, a quartz core, a quartz punch, a possible quartz tool tip and 6 pieces of quartzite shatter, one possibly edge-modified. The site was determined to be NR eligible, posted off limits, and avoided during construction of the original building and again during expansion and modification of the parking lot. The site is currently offered additional protection by being included inside the fenced ASOS perimeter.

FDP 1279 Cantonment

FDP 1279 is located in the northeast corner of the intersection of Po Valley Road and Mount Belvedere Boulevard. Survey in 2004 (2004.096) had identified the potential for cultural material and the location was placed off limits pending further evaluation, and the proposed

CDC footprint and subsequent construction was moved to the east to save and protect the site. The subsequent 2012 investigation (2012.035) produced a large amount of lithic material in the area from shovel tests and their cruciforms. The material was mainly concentrated in the southwest part of the project area. The report for that project recommended that a number of outlying shovel tests that had produced relatively few lithics should be evaluated by means of Phase II test units. If these did not yield any significant cultural material, the area placed off limits could at least be made smaller, placing less restriction on future construction. Two test units were excavated along the northern edge of the 2012 shovel test grid (2013.004). Test unit 2 produced a chert scraper and a Lamoka projectile point. Rather than allowing the off limits area to be pulled back, this Phase II evaluation seems to indicate a need for additional Phase I survey to the north of the current project area. This should be accomplished when time allows but prior to any additional construction. Test unit 2 was not finished due to time constraints and was lined with filter fabric and backfilled. It should also be completed. In the meantime, the area should remain protected from further ground disturbance.

FDP 1280 Cantonment

This site was identified during an informal pedestrian survey. At that time, 2 LeRay chert scrapers, a piece of possible Onondaga chert shatter and a clay pipe bowl fragment were collected from a surface context. Located on the west side of the Cantonment to the northwest of Guthrie Clinic, the site was situated on a low, sandy "island" almost completely surrounded by tributaries of West Creek. The vegetation consisted mainly of pine, interspersed with open, sandy areas. Chert shatter was evident across the surface of the blowout. A number of late 1960's era fighting positions were also noted throughout the landform. Since the area is not under pressure for development, when time allows, a formal pedestrian and shovel test survey should be conducted to determine the extent of the site and whether any intact subsurface deposits exist. These surveys will determine whether the site is NR eligible.

FDP 1283 Cantonment

This site was reported by a program volunteer who had collected a chert scraper from the surface of a sand blowout (2013.009). An approximate location was provided using aerial photos. The site is located approximately 200 meters to the northeast of the northeast corner of the Sanford Corners Cemetery in what appears to be a sandy/grassy field. Since the area is not under pressure for development, when time allows, a formal pedestrian and shovel test survey should be conducted to determine the extent of the site and whether any intact subsurface deposits exist.

FDP 1287 Cantonment (2500 Area)

Located on the edge of a bluff above the Black River, this site was identified during Phase I survey for a proposed 10th Combat Aviation Brigade memorial park and static display. The

artifact assemblage consisted of a large number of LeRay chert shatter and flakes spread over a large area. Much of the site appears to have been disturbed by the construction and subsequent demolition of building T-2583, the "can wash facility" (FDH 1363). However, an undisturbed portion of the site was found along the bluff edge in a wooded setting. This area of the site could be considered National Register eligible under Criterion D. Consultation and mitigation efforts should be undertaken if the area is ever developed. It should be noted that the addition of the memorial park and display will act as a kind of site protection by making the area less desirable for future construction. The archaeology team completed excavations for the concrete pads to be used for displaying helicopters as Phase II test units (2014.029).

FDP 1289 Cantonment

This site was found during Phase I testing for cabins in Officer's Loop. The artifact assemblage consists of LeRay chert shatter and secondary and tertiary flakes. The site is located adjacent to the Cantonment fence near the edge of a ravine and it is possible that it has been bisected by the fence. The boundary of the site was delineated by cruciforming and posted with off limits signs and a new design was created for the cabins to avoid it. Phase II testing should be performed to determine NR eligibility if the area is ever developed.

FDP 1294 Cantonment

This site was identified during Phase I survey for expansion of The Commons parking lot, the site is a lithic scatter. The artifact assemblage consists of LeRay chert and quartz flakes and shatter, some of which appears to be culturally modified. A LeRay chert scraper and a quartzite scraper were also recovered. The proposed parking lot expansion was redesigned in order to preserve the site in situ.

FDP 1295 Cantonment

This site was identified during Phase I survey for a proposed perimeter patrol trail along the Cantonment fence. The site was evidenced by LeRay chert flakes and shatter eroding out of a sand blowout. The number was also assigned to the lithics from several nearby shovel tests. This site is located on a bluff above West Creek. This area is problematic because the entire landform yielded lithics, many of which appeared to be culturally modified. Construction plans for trail improvement now include a requirement for an archaeology monitor to be present when any form of ground disturbance is scheduled to take place at the cultural areas along the fence.

FDP 1296 Cantonment

This site number was applied to lithics found during re-curation of artifacts from the 1986 excavations near LeRay Mansion at FDH10-191.

FDP 1297 Cantonment

This site was identified during Phase I survey prior to the repair of a failed stormwater outfall and is located outside the Cantonment fence on a bluff above the Black River. It is on the opposite side of a ravine from FDP1298. The artifact assemblage consisted of a number of LeRay chert flakes, chert shatter and a possible polyhedral microblade core. Tools of this type are indicative of Paleoindian lithic technology and could be 10,000-12,000 years old. The sensitive areas of the landform were marked and avoided during the outfall repair in order to preserve the site in situ.

FDP 1298 Cantonment

This site was identified during Phase I survey prior to the repair of a failed stormwater outfall and is located outside the Cantonment fence on a bluff above the Black River. It is on the opposite side of a ravine from FDP1297. The artifact assemblage consisted of a number of LeRay chert flakes and shatter. The site was not affected by the project and is currently not threatened by any form of development.

Multi-Component Site

FDP 1207 Cantonment

The Dailey/Parkinson/Whitney Farmstead (FDH 10-22) was first investigated by Louis Berger and Associates (LBA) in the 1980s when the new Cantonment was being built. It is located on a bluff overlooking FDP 1, just south of the railroad. At the time, the site was determined to have a prehistoric context as well as the expected historic context. Although some Phase II test units were excavated by LBA, the prehistoric context was poorly addressed and attributed to "collecting activities of the former occupants." The prehistoric artifact assemblage that includes prehistoric ceramic sherds, ceramic pipe, lithic materials, fire-cracked rock, a chert biface and a possible projectile. The chert bi-face was identified as a Normanskill projectile point, probably Middle Archaic (3500-2500 BC). The decorated ceramic rim sherds were identified as quartz tempered, incised dentate from the Woodland period (1000 BC- AD 1600). It was recommended in 2003 that prehistoric/contact period artifacts recovered from baseline 1 and 2 should be used to determine the locations of Phase II test units in the vicinity of the Whitney Farmstead prior to any further ground disturbing activity in this area and to evaluate the sites potential for NR eligibility. A Phase II excavation with these goals in mind occurred in 2004, but unfortunately the site appears to be completely destroyed by previous excavations. In addition to typical farmstead artifact assemblages, Whitney Farm also yielded African trade beads. There was a one room school house adjacent to the site, and there is a series of interesting artifacts that may have been items lost in a school yard as well.

FDP 1276 and LeRay Mansion Historic District Cantonment

During an unrelated search of the collection, a single LeRay chert flake was located that had been curated under project 1994.32 and labeled "FDP 1101 LeRay Mansion". Further research revealed that project number 1994.32 was actually associated with FDH 1132 and that its attendant artifacts were in the collection. FDP 1101 is actually a site in Training Area 4A discovered in 1997. The only undertaking at LeRay Mansion in 1994 was the LeRay Mansion Waterline Project under project number 1994.09. In the 1994 annual report, mention is made that shovel test 2 of this project yielded 1 lithic fragment in addition to a large number of historic artifacts. This provenience corresponded to the information with the chert flake which said that it was from level 1 of STP 2. The flake was re-curated as 1994.09.058 and the decision was made to assign it a new site number, FDP 1276. Documentation with the flake stated that it was found 5m from the Mansion foundation. This information, along with the project map which showed where the waterline met the foundation was used to generate the UTMs for the location of FDP 1276.

FDP 1276 also includes a small number of lithics, which consist of LeRay and Onondaga chert shatter and flakes that were probably recovered during survey in the 1980's by Berger and Associates in the vicinity of the Mansion. Their exact provenience is currently unknown.

Historic Sites

FDH 1312, Historic Canine Burial, Cantonment

The historic canine burial was located behind the residential cottages on Pine Lane. It consisted of a small concrete grave marker behind building T-2257. It read "MOLLY" and "1931-1941". A small, hand-made metal plaque on a nearby tree read "MOLLY/SPRINGER SPANIEL/A.K.C. 874441/1931-1941/COL. CAMP". This feature will also continue to be managed as a Fort Drum historic archaeological site.

FDH 1337, Historic Canine Burial, Cantonment (2500 Area)

The historic canine burial was located behind the location of a demolished WWII-era house east of Route 26. It is marked by a small marble headstone that reads ""TIPPY"/The Beagle/24 Apr 62-31 Aug 71" and a chain enclosure. This feature will also continue to be managed as a Fort Drum historic archaeological site.

FDH 1339 Cantonment (2500 Area)

First located in 2010, the site consisted of a large number of historic artifacts recovered from a shovel test near recently demolished WWII-era housing. The assemblage seemed to be consistent with an early to mid-20th century trash dump. A test unit was begun in 2010 and finished in 2012. The artifacts recovered confirmed the date range originally set and seemed to focus more on domestic/female activities than trash dumps usually associated with the farmstead context. It is possible that this site could yield further insight into the lives of the WWII Officers and their families who resided in the housing area. As such, it may be eligible for the National Register under Criterion D. However, formal curation of the artifacts should be completed before confirming this recommendation.

FDH 1363 Cantonment (2500 Area)

Located on the edge of a bluff above the Black River, this site was identified during Phase I survey for a proposed 10th Combat Aviation Brigade memorial park and static display. At one time there had been two buildings adjacent to the proposed project area. Popularly known as the "can point", they were believed to have been associated with military mess activities. A search of the Real Property archives revealed only one building number at that location: T-2583 was classified and a "Refuse/Garbage Building" and called the "can wash facility". It was built in 1941 and, based on aerial photos of the area, was torn down sometime between 2000 and 2005. Older aerials show a second structure at the site but it was not listed in the Real Property records and was likely either a canopy or an unenclosed structure. It was torn down sometime between 1995 and 2000. The buildings were probably some type of staging/teardown area for field mess activities. A 1935 Pine Camp Terrain Map shows an incinerator in the vicinity. Historic artifacts were recovered from a large area, mainly in disturbed contexts. Most of the historic material recovered appears to be associated with the can point and is either architectural in nature or related to the kitchen facility aspect of the buildings. The site is highly disturbed and is not eligible for the National Register.

FDH 10-171, Hepp/Lawton/Weber Farmstead, Cantonment

This farm complex, located just inside the fence south of the Steinhilber Road features foundations of the farmhouse, barn, milkhouse and other outbuildings. The farm appears to have tapped a local pond for water, and the water system can be appreciated during the course of a site visit. Berger research has provided details on the families, management and productivity of the farm, making it an excellent choice for an historic site visit.

Ammunition Supply Point (ASP)

Southwest of the airfield, and located in TA 5E, the ASP complex is located along the Munns Corner Road. Its landform is the Pine Plains delta, and it may be one of the most archaeologically sensitive areas on Fort Drum.

FDP 1011 and ASP Complex

The Ammunition Supply Point (ASP) and associated Field ASP is considered to be a highly sensitive area for archaeological material on Fort Drum. FDP 1011, was the first numbered prehistoric site to be identified in this vicinity. Although this site was originally listed as being located in Training Area 5A, realignment of training areas in the mid-1990's resulted in the location becoming Training Area 5E. The site consists of an oblong scatter of water worn cobbles measuring 2.5 meters by 1.42 meters, which may be a prehistoric cairn. No further testing has been performed in order to prevent disturbance and/or inadvertent discovery of human remains. The site has been protected by installation of TensarTM geo-textile which has also enabled re-vegetation, hydro-seeding, and subsequent stabilization of the sandy soil surface. The site is further protected by its location inside the ASP fence.

In 1992, the Cultural Resources Manager, David Fuerst, contacted Duncan Gladle, a local collector who was purported to have a collection of prehistoric artifacts recovered on Fort Drum "...almost entirely from around ASP, Hubbard Crossing & 5A, 5B, 6C", as stated in Mr. Fuerst's notes. Mr. Gladle had originally lived on Town Line Road between Wood's Mill and Lewisburg in what is now the Main Impact Area. The family moved in 1941 when Mr. Gladle was 14 years old. He had worked in the Provost Marshall's office on Fort Drum between 1951 and 1978. Mr. Fuerst met with Mr. Gladle on 21 September 1992 and photographed his collection along with two projectile points found by a SGT Larry Pacola in a sand blowout on Range 17. SGT Pacola seems to have been the person who referred Mr. Fuerst to Mr. Gladle. The men visited three site locations that day, directed by Mr. Gladle. Two of these involved the ASP. One location marked on the topographic map in Mr. Furest's fieldbook and the fact that the area is generally wooded seem to indicate that the artifacts must have been collected from the disturbed area around an ammunition holding area.

The second location was just outside the ASP fence at the head of a ravine. According to the notes, Mr. Gladle had recovered flakes, a lanceolate point and an "SN PT", perhaps referring to a Snyder point, at this location. Mr. Fuerst noted that nothing was seen on the surface "...despite excellent visibility." Mr. Fuerst's notes give a fairly detailed description of the artifacts that he photographed that day, and the program does have thumbnail copies. The area where these artifacts may have been recovered was resurveyed under project number 2019.011. FDP 1022 was discovered and numbered during the 1994 survey and lies just north of the ASP fence near a springhead, which eventually drains into the West Branch of Black Creek. The artifact assemblage consisted of over 100 secondary and tertiary chert flakes recovered from the surface of a sandy blowout. Seventy shovel tests were performed at 10-meter intervals in the blowout

and on the intact grassy bluffs around it. Five yielded additional chert debitage, and no subsurface features or strata were documented.

There are several springheads inside the ASP which feed into the West Branch of Black Creek. FDP1150, a hearth with a Genesee point, was located just outside the ASP fence at the beginning of one springhead. A second cairn, FDP1218, was located just outside the fence on the east side of the ASP. Ten additional sites, five prehistoric and five historic were located in Training Area 5E. Three of the prehistoric sites and the cairns and hearth were posted with signs reading "Off Limits by Order of the Commander". Other artifacts located inside the ASP fence include a broken knife blade of Vanport (Flint Ridge) chert a source that is located in Ohio.

There was also an oral history that told of human remains being discovered during construction of a road inside the ASP. Allegedly, the road was redesigned to avoid the burial, but the location was no longer known.

There is an historic component to the ASP site complex, FDH 1260, which may represent a Pine Plains Cavalry Dining Facility. Artifacts recovered included wine and milk bottles.

The Cultural Resources Program carefully reviews all undertakings proposed for the ASP and its immediate surroundings and monitors excavations there when necessary.

TA3 is glacial lake plain characterized by wetlands, dense shrub cover and some grasslands to the north. Sensitive portions of this landform would occur in the vicinity of the Pleasant Creek and its tributaries. It is unusual for prehistoric sites to occur in this landform. As a result, even small prehistoric sites in this area are of special importance.

Prehistoric Sites

FDP 1043 TA 3A

This site was originally located in 1995 during the Phase I survey of this training area. The artifacts, according to the field notes, consisted of 4 LeRay chert flakes from shovel tests with three flakes currently present in the collection. Two cruciform shovel tests at unknown intervals were positive in addition to the original shovel test. No Phase II was performed. The site was relocated in 2000 by means of close-interval shovel testing under Project Number 2000.189.

FDP 1044 TA 3A

The site was originally located in 1995 during the Phase I survey of this training area. The only artifact is a LeRay chert secondary flake from level three of a shovel test. Cruciform testing at an unknown interval failed to yield any further cultural material. No Phase II was performed. The site may warrant further testing.

FDP 1269 and 1270 TA3A

Identified during survey for a timber harvest, these sites are located in the Lake Plain physiographic region of the installation. The assemblages consist of quartz tools and debitage. The sites were determined to be eligible for the National Register pending further evaluation and were flagged for avoidance during the timber harvest and the boundaries were GPSed for future reference.

Historic Sites

FDH 1002, 1006, 1378-1382 Slocum Mills, TAs 3A and C

Slocum Mills is a mill complex located along the Pleasant Creek downstream from LeRaysville. James LeRay de Chaumont reportedly established a gunpowder mill there, followed by Jules Payen in 1840. Subsequent mills included a saw mill, carding mill-woolen factory, and a grist mill. Fort Drum acquired the acreage in the vicinity of Slocum's Mills in 1940, and at that time it appears that the Bedlam Road crossed the Pleasant Creek at that location via the impoundment. At some point, the impoundment was destroyed or breached, freeing the creek and draining the mill pond. The Slocum family were Quakers and their son Caleb walked to Watertown to enlist as a Soldier in the Civil War. His friends and brothers followed to convince him not to make this choice, but Caleb prevailed at the risk of being banished from his family and Quaker community. Caleb Slocum is still recognized for his courage and military service.

FDH1405, Improved Spring, TA 3A

This site was brought to the attention of the program by members of the Natural Resources Branch. They had been contacted by a member of the public who said he knew the location of a drinking water spring on Pleasant Street. He was able to take staff directly to the spring which consisted of a damaged concrete box adjacent to a culvert. Water was still bubbling out of the opening.

TAs 4 and 5

The predominant land form of TAs 4 and 5 is the Pine Plains Delta, where the proto Black River dropped its fine grained silt load as it flowed into Glacial Lake Iroquois. There are portions of

this land form where the sand may be more than 100 feet thick. TA 4 has been modified by springs that have eroded into the sands, creating a series of peninsulas that lower in elevation to the north reflecting decreasing water levels as the Glacial Lakes began to drain more effectively into the St. Lawrence water system. So far, the pattern of prehistoric occupation in TA 4 seems to favor the western and northern edges of the peninsulas as they drop into the deep ravines created by the springs and their drainages. The northwesternmost sections of TAs 4 and 5 blend into the Glacial Lake Plain landform which is characterized by thin soils over bedrock that would have been the bottom of the Glacial Lake.

Prehistoric Sites

FDP 1007 (A045-11-0177) TA 4A

The site lies on the southeastern central edge of the training area and was evidenced by a single Onondaga chert flake found on the surface. Thirty-four shovel test units in a ten-meter grid failed to yield any further cultural material. The area has since been destroyed by construction of the Central Vehicle Wash Facility. No further testing is recommended.

FDP 1008 (A045-11-0178) TA 4A

The site lies on the southeastern central edge of the training area and was discovered during the Phase I judgmental survey for the Central Vehicle Wash Facility. A Phase II was also performed. The artifact assemblage includes multiple Vanport (Flint Ridge) chert thinning flakes, and Onondaga chert thinning flakes but it is unclear which artifacts came from the Phase I and which came from the Phase II. The Phase II also recorded two pit features containing chert debitage and charcoal. The potential importance of this site was not recognized at the time of its discovery, and so the area was destroyed by construction of the Central Vehicle Wash Facility. No further testing of the precise site location is recommended or feasible. However, further examination of the artifacts from this site and the subsequent discovery of paleo artifacts at FDP 1208 nearby have reopened serious research into the lithic sources and potential cultural affiliations of these materials. The lithic assemblage is currently on loan to the New York State Museum for further analysis. A C-14 sample tested in 2010 returned a date of 2100+/-40 BP, placing it in the Early Point Peninsula Period.

FDP 1093 TA 4A

FDP 1093 offers a compelling example of continuity in indigenous occupation over thousands of years in the Fort Drum Region. Hearth and post mold features at this site yield a range of dates beginning with 7280 +/- 40 BP, and continuing with 5420 +/- 40, and 5410 +/- 40. These early features would be consistent with occupation in the Archaic period. A date of 3460 +/- 40 matches recovery of Orient Fishtail projectile points recovered on the site which links the occupants of 1093 with cultural features found on Fort Drum at Indian Lake and off Fort Drum as far away as Long Island and Pennsylvania. A date of 1930 +/- 40 from a hearth located at what appears from the post molds to be an offset opening for a dwelling approximately 5m in

diameter is consistent with Point Peninsula occupation. Adjacent to the hearth were two fired clay features that contained charred remnants of raspberry seeds. The Point Peninsula occupation has provided numerous artifacts including a metate used to grind Chenopodium, lithics with sources as far away as Ohio, and ceramics. In addition to the Early Woodland decoration, these ceramics, under microscopic analysis, show technological similarities to ceramics recovered from sites in Ohio and the Midwest from the same time period. Later dates from features at 1093 are 1180 +/- 50, 1130 +/- 60, 1090 +/- 100, 990 +/- 40, 860 +/- 60, 850 +/-60, 810 +/- 80, 670 +/- 70, 440 +/- 60, and on through more modern times with 160 +/- 90, and 150 +/- 60. The dates corresponding to approximately 1000-1300AD are especially important because they were taken from samples found in association with Point Peninsula artifacts, indicating that Point Peninsula people may have stayed hundreds of years longer in the Fort Drum region than in other parts of northern New York and Ontario. Evidence of occupation during a time period spanning approximately 1340AD through 1560AD offers an extremely important opportunity to better understand the beginnings of Haudenosaunee Culture on Fort Drum and in the Great Lakes region. A major forest fire swept through TA 4A in the 19th Century accounting for the two much more recent dates. In summary, the site not only represents continuity of occupation and use, but also the potential for greater understanding of the eastern Great Lakes and northern New York interaction spheres over thousands of years.

Located in Training Area 4A of Fort Drum, Fort Drum Prehistoric Site 1093 was first discovered during the 1997 field season. It was initially recorded as a prehistoric ceramic and lithic scatter. During a visit on an annual monitoring trip in 1999, the crew discovered that the site was much more extensive than initially determined, which then involved incorporation of FDP 1094 to make it one larger site. The site was recommended for protection and was posted with off-limits signs and Seibert stakes. Because the site is located on a large sandy plain, it has been subject to repeated damage from the elements and was being eroded at a rapid rate. Prior to protection, military vehicles had contributed to the erosion by driving across it. A series of test units were completed in 1999 in order to provide a culturally sterile corridor for vehicles to pass through the site.

Data recovered from these test units suggested that FDP 1093 could provide a substantial amount of new information. The plan for further evaluation and data recovery was designed to gain as much information as possible from an eroding landform located in an area that was in demand for training and development. The goal was to reopen as much of the area as possible for military use while identifying a portion of the site that could be stabilized and saved for future investigation.

The location of the site itself may be the reason why different groups chose to settle there for an extended period of time. Not only is it strategically located adjacent to the portage connecting the Black River and Indian River waterways which in turn connect to the Eastern Seaboard, the

Great Lakes, and the Maritimes, FDP 1093 is well drained with a decent prevailing wind, and is situated in close proximity to a large spring-fed ravine in a landform featuring a multitude of edible animals and plants. It is also reasonably close to sources of stone tool material and pigmented ores like ochre and hematite, also recovered at the site.

Two additional concentrations of historic artifacts were identified in the northern area of FDP 1093. Both areas appear to have been severely disturbed by a combination of the elements and vehicle traffic, limiting their usefulness as sources of new information. Both scatters have been labeled together as FDH 1120 and are ineligible for the National Register of Historic Places because they lack provenience and stratigraphy.

Upon completion of the data recovery and test excavations, cultural resources partnered with the Integrated Training Area Management (ITAM) Program to re-vegetate the eroding sands. Stabilization efforts have been very successful. In addition, Fort Drum has completed the initial phases of construction for the Operational Readiness Training Complex (ORTC) nearby without any adverse effects for FDP 1093. Should the ORTC ever expand, there is a long range plan to further protect the site using geo-textiles and to create a parade field on top of it.

FDP 1094 TA 4A

This site was incorporated into the expanded site boundary for FDP 1093.

FDP 1101-1104 TA 4A

Located during the Phase I survey, these sites are located in the southeastern part of the training area where LeRay debitage was recovered in shovel tests that did not yield positive cruciforms. Because Pamelia limestone containing outcrops of LeRay chert occurs fairly high in the strata in this area and the chert may work its way up into the sandy deposits, these sites were considered not eligible for NRHP. The area was re-tested in 1999 and there was no further evidence of artifactual material. No further testing is recommended.

FDP 1127-FDP 1147 TA 4A

These site numbers were assigned to lithic scatters found throughout TA 4A. As the Fort Drum archaeological survey transitioned into testing prehistoric predictive models, the incidence of site discovery increased dramatically. It became increasingly clear that assigning site numbers to small lithic scatters in areas of high site density like the ravine edges in TA 4A was no longer a productive approach so these site numbers were retired, and the program decided to manage the finds as an archaeological area.

FDP 1156 TA 4A

This number was assigned to a small prehistoric site discovered along the access road into FDP 1093. The site consists of a small lithic scatter including a core. The surface deposit was small and well defined. The lithic materials were non-diagnostic. This site requires subsurface investigation in order to determine if there are any buried components. Further testing is required prior to consideration for NRHP.

FDP 1162 TA 4A

This site was identified following the initial Phase IB survey completed during project 1999.32. This site number corresponds to positive STPs from baseline 6. Artifacts collected included several pieces of chert debitage, chert flakes, bone fragments, 2 pieces of quartz debitage and 2 shell fragments. Further analysis of the artifacts recovered and Phase II investigation at this site is necessary to determine the nature, function and extent of the cultural material present.

FDP 1163 TA 4A

This site was discovered after the predictive model identified the area as highly sensitive for prehistoric materials. The site is on a glacial deltaic outwash apron adjacent to a ravine at the 600-foot elevation contour line. The soil is mainly sand and loam and erosion is occurring in the sandy areas. Phase IB investigations produced artifacts to include chert debitage, quartz debitage, chert flakes, and an exotic orthoquartzite core. The positive shovel tests with positive cruciforms will require Phase II investigation and determinations of NRHP eligibility.

FDP 1199 TA 4A

This site was discovered when prehistoric artifacts (lithic chert flakes) were found on the surface during Phase IB evaluation. No positive features were encountered during Phase II excavation. One possible flake found in TU 2 should be looked at further, and the seed should be identified. It is important to note that the unidentified burned material is ubiquitous in tiny fragments throughout the landform. No further evaluation is recommended for this site, and since no structural or feature remains were found the site does not appear to hold any additional information that would make it National Register eligible under Criterion D.

FDP 1200 and 1201 TA 4A

The purpose of this project was to further evaluate an area and features that had yielded cultural material during the course of survey and evaluation prior to opening construction footprints for the expanded Operational Readiness Training Complex (ORTC). FDP 1200 had a post mold, red slate and chert, and FDP 1201 featured lithic debris in addition to carbonized seeds. Both sites also had carbonized material of unknown type and origin, and C-14 dates at 1201 came in at 990 +/-80BP. Neither site had sufficient artifacts or features to be eligible for the National Register,

but should the ORTC continue to expand toward the archaeologically sensitive area with these sites along with proximity to FDP 1093, the management solution will be to protect them with a surface of geo-textiles and then placement of fill to create a parade field on top of them.

FDP 1208 TA 4A

This site was discovered during Phase I investigations in 2001. Phase II investigations in 2003 revealed a highly unusual and rare lithic tool. The conical piece of chert was later identified as a polyhedral microblade core. The object is similar to a stone tool recovered in Iceland. It is also similar to boat building tools documented for the paleo period in coastal California and across the Arctic. Dr. Jim Cassidy was retained by Colorado State University as a consultant to assist in evaluation of this site as well as possibly related sites across the installation. He was able to confirm that the lithic assemblage matched that of a paleo-maritime assemblage in California and that wear patterns on the tools were consistent with puncturing vegetative materials like bark. The site assemblage from 1208 is currently on loan to the New York State Museum for further analysis. Carbon dates from features at the site came in at 1840 +/-40, 1150 +/- 40, and 350 +/-40 BP indicating potential for multi-componency.

FDP 1208 is from the glacial lake shore landform meaning that it could be related to the potential paleo-maritime artifacts recovered from FDPs 1152 and 1149 in TAs 17D and 17C from the "fossil island" landforms in the glacial lake. In 2008, Dr. Dennis Stanford of the Smithsonian visited these sites as part of his research into hypothesis testing of the potential for early immigration to the Americas from the East. This site is currently posted and protected.

FDP 1221 TA 4A

This site was first identified during a Phase I survey for a new water treatment plant facility. The site is located between the western side of Wheeler-Sack Army Airfield and the Main Tank Trail, just across from the Central Vehicle Wash Facility. The assemblage consists of LeRay chert debitage. The location of the new water treatment plant facility is disturbed and FDP 1221 remains intact just outside of the footprint. Given the apparent size of the site and the degree of disturbance along the edge of the project area, the construction of the new water treatment facility will have no effect on the possible information that could make this site National Register eligible. Further testing is recommended.

FDP 1227 TA 4A

The site was discovered during a routine site revisit of FDP 1208. The site is located on a ravine edge approximately 160m from FDP 1208, a Paleo-Indian boat-building site. A partial chert tool was recovered that may be a punch or wedge. A more thorough pedestrian survey yielded a chert tertiary flake that mends to the wedge. A LeRay chert secondary flake, Leray chert shatter, 2

pieces of Onondaga chert shatter, and two pieces of red jasper one of which may be a punch. In 2004 a large quartz wedge was recovered from the site but was not recognized as an artifact at the time. FDP 1227 is very similar to FDP1208 the paleo-maritime site. A close interval shovel test survey is recommended.

FDP 1263, TA 4A

This site was a small lithic scatter comprised of quartz flakes that was mitigated and removed via data recovery during testing.

Historic Sites

FDH1398, Sawmill, TA 4A

Located during site reassessments in the area, FDH 1398 is a sawmill. The site consisted of a large concrete structure with sluice walls in the original creek bed. The creek had carved a new channel around the structure. There was a stone embankment leading to the structure on the southwest side of the creek and an earthen berm on the northeast side. Evidence of rebar in the concrete dates at least parts of the structure to a later time than several of the historic maps. It is possible however, given the apparent longevity of the site based on its appearance on multiple historic maps, that this represents additions and improvements over the course of time. This site offers an excellent location for training on cultural property identification and protection.

FDP 1205 TA 4B

The site was discovered in June of 2003 during a Phase I Survey (2003.019). Phase II excavations (2003.034) have not produced any evidence of diagnostic pottery, or post molds outlining structures. Although LeRay chert scrapers were found, it is difficult to provide a cultural or temporal context. The distribution and concentration of chert debitage would classify this site as a lithic reduction site, and appears to represent a single activity locus. Consequently, although it was not part of the original research plan, it appears that most of the site may have been excavated during the course of evaluation.

FDP 1090 TA 4B

The site is located adjacent to a spring on a low sandy rise. It has produced numerous tools and flake detritus, post molds, pit and hearth features and ocher nodules. The site's perimeter has not yet been identified. Further testing is needed for the purpose of site delineation although 10m tests show the site to be relatively small. Unfortunately, C-14 dates at this site match the date of a major nineteenth forest fire that burned the area. The site is protected and NRHP eligible.

FDP 1097 TA 4B

Found during the Phase I survey of the training area, the site is located in the northern part of the training area near a tributary of Pleasant Creek. The site originally consisted of one piece of chert debitage from level two of a shovel test. Further testing in 2004 (Project 2004.011) uncovered a small lithic scatter. Phase II test unit evaluation should be performed before turning the area over for any type of construction or ground disturbing activities.

FDP 1277 TA 4B

This site was identified during an informal pedestrian survey of a sand blowout (2012.015). Artifacts include a scraper, edge-modified core, cortical flake and shatter, all of LeRay chert and from a surface context. When a timber harvest was proposed adjacent to the site, a close-interval shovel test grid was performed to look for any intact deposits in and around the blowout. This survey produced a number of artifacts, mainly in the form of LeRay chert shatter and flakes. When mapped, the majority of the distinctly cultural lithics came from the interior of the shovel test grid. This survey also seemed to indicate that there was, in fact, intact stratigraphy throughout the site. FDP 1277 should be considered eligible for the National Register under Criterion D. A boundary was established using the edges of the shovel test grid to be placed off limits during the timber harvest. This boundary was flagged and GPSed and a shapefile was provided to the Forestry Program. The site is not currently in danger from construction, however, it is adjacent to the footprint of a proposed runway expansion. If the expansion goes forward and the site cannot be avoided, consultation and mitigation efforts should be undertaken.

FDP 1024 TA 4C

Located during a REC survey of the area, the site is in a sand blowout on the edge of a steep ravine above a tributary of Pleasant Creek. Due to its location, the site is actively eroding. The artifact assemblage consists of one large Onondaga chert core with cortex, multiple pieces of Onondaga chert shatter, two pieces of unidentified chert with an unusual crystallized cortex and one piece of unidentified dark chert (Grenville?) shatter with cortex. Phase I shovel testing consisted of two rows of shovel tests 10 meters apart along the top of the ravine. Shovel tests themselves were at 20 meter intervals. None of the 12 shovel tests produced any further cultural material. The site is currently located inside the boundaries of Wheeler-Sack Army Airfield but has not yet been impacted by any expansion or construction. Due to the unusual nature of the lithics, this site is considered eligible for NRHP. Further testing is recommended in order to define the nature and boundaries of the site. Given its location inside of the airfield fence, the site receives excellent protection, and the off limits signage was updated in 2019.

FDPs 1040, 1041, and 1042 TA 4C

Phase I survey for the expansion of Wheeler-Sack Army Airfield, identified this series of sites located in the southern part of the training area. The sites consisted of single flakes of local LeRay chert found in shovel tests with negative cruciforms. Cruciforms at five and ten meter intervals failed to yield any further cultural material. No Phase II excavations were performed. The sites were considered to be not eligible for NRHP and have since been destroyed by the expansion of the airfield.

TA5

Prehistoric Sites

FDP 1027 TA 5A

Located during a reconnaissance survey of the training area, the site is just west of County Route 29 on the same Glacial Lake Iroquois relic beach ridge as FDP 1025 and FDP 1026. The artifact assemblage consisted of a Susquehanna projectile point recovered from the surface. No further investigation was carried out and the site has since been destroyed by military activities. No further testing is recommended.

FDP 1030 TA 5A

Located during a reconnaissance survey of the training area, the site is just west of County Route 29 on sand plain approximately 500 meters inland from the relic beach line of Glacial Lake Iroquois. The artifact assemblage consists of a Lamoka point of Onondaga chert, 2 pieces of Onondaga chert shatter and more than 10 pieces of LeRay chert debitage. All artifacts were recovered from the surface and no further testing was performed. Although the area has been disturbed by bivouac activities, subsurface disturbance is probably minimal and shovel testing is recommended prior to consideration for the NRHP.

FDP 1031 TA 5A

Located during a reconnaissance survey of the training area, the site is just west of County Route 29 on a sand plain approximately 300 meters inland from the relic beach line of Glacial Lake Iroquois. The artifact assemblage consists of 6 secondary Onondaga chert flakes recovered from the surface. Twenty-four shovel tests, performed at 10 meter intervals around the collection area, failed to yield any further cultural material. The site was listed as not eligible for NRHP and has since been destroyed by military activities. No further testing is recommended.

FDP 1025 TA 5B

This site is located on a relic beach ridge of Glacial Lake Iroquois. First located in 1994, the site has been revisited numerous times. New artifacts and pieces of broken artifacts, which mend to

previously collected pieces, have been found over the course of years. The total artifact assemblage includes a northeastern fluted paleo point, or Clovis Point, a sandstone abrading tool, an unidentified red slate point, a Brewerton eared-notched point of Onondaga chert and a triangular biface of Onondaga chert. This last has also been identified as a knife blade and a Levana point, but the flaking pattern suggests that it might be a re-worked Paleoindian point. Large amounts of Onondaga and Normanskill chert debitage have also been recovered. During the 1994 survey, 232 shovel tests were dug at the site at 10-meter intervals. Only one was positive for debitage. The site was then protected pending further testing. After the 1995 and 1996 field seasons, the protected status was reversed when testing suggested that the site had been destroyed by erosion and military activities. In 1997, it was concluded that the site had research potential due to the Paleo-Indian context and the site was re-protected. The discovery of another site on a terrace just north of FDP 1025 also increases the area's potential. Nearby is a possible Perch Lake type mound which was later determined to be created by military vehicular activity.

In 2004, the CRP completed more extensive testing at site FDP 1025 and found that although there are probably additional artifacts present, the shifting of the dunes has destroyed any potential stratigraphy or contextual information. In addition, it was noted that without military disturbance, fewer artifacts come to the surface for recovery during the annual site revisit. As a result, the site is open for unlimited military use, and an Afghan style village made of foam has been constructed in its immediate vicinity.

In 2010, Dr. Dennis Stanford of the Smithsonian visited the site and borrowed the Clovis Point in order to make a duplicate for study in the Smithsonian collections. He also identified remains of additional channel flakes from the artifact assemblage for this site, demonstrating that additional Clovis Points were once created at this location. In 2018, Fort Drum began to collaborate with the New York State Museum, and loaned the Museum all of the artifacts for further analysis. Preliminary results show that at least three Clovis Points were once associated with this site, that the Fort Drum Clovis Point was made and discarded at this location from chert sourced in the Hudson Valley and that the site may represent the most westerly location for ancient Caribou hunting in New York State. The estimated occupation date is now 13,500 BCE.

FDP 1026 TA 5B

Located during a reconnaissance survey of the training area, the site is just east of County Route 29 and approximately 200 meters west of FDP 1025 on a relic beach line of Glacial Lake Iroquois. The artifact assemblage includes a Jack's Reef pentagonal point of Onondaga chert, a projectile point tip (possibly Kramer) of Onondaga chert and heat-altered Onondaga chert secondary flakes. Only one of the 254 shovel tests performed at 10-meter intervals yielded Onondaga chert shatter from level 2. In 2000, shovel skim testing revealed the presence of

varied cultural deposits and defined the site boundaries. Further stratographic evaluation is recommended in order to recover temporal data.

FDP 1095 TA 5B

Located during a REC survey in the area, this site lies across a deep ravine and an intermittent stream called Trout Creek from FDP 1025. The site consists of a single LeRay chert primary flake from level 2 of a shovel test. Cruciforms at 10-meter intervals failed to yield further cultural material. Subsequent cruciforms at one meter intervals yielded burned bone but no lithic materials. Because of the location of this site, further testing is recommended prior to consideration for NRHP.

FDP 1164 TA 5B

The site was discovered during examination of excavated fighting positions and consisted of a hearth with fire-cracked rock and two pieces of Onondaga debitage recovered from the surface. The site was mapped and surface-collected. Shovel tests surrounding the site were negative, and the integrity of the site had been compromised by military activities. No further testing is recommended.

FDP 1191 TA 5B

Three Phase II test units were excavated in the vicinity of a scraper of LeRay chert recovered from the surface. Data from all three units showed the site to have been disturbed. Charcoal areas were widespread, leading to the belief that they resulted from a forest fire and military disturbance was found in level two. No lithics or diagnostic artifacts were recovered. No further testing is recommended.

FDP 1223 TA 5B

The site was identified during a Phase I survey for a proposed timber harvest. The site is located in a sand blowout adjacent to the West Branch of Black Creek. The site is located immediately north of a relic beach line at the edge of the lake plain. The assemblage consists of LeRay chert shatter and secondary and tertiary flakes. FDP 1223 appears to be a small lithic scatter. Further evaluation in the form of Phase II testing should be performed when time allows.

FDP 1034 TA 5D

First located during a field reconnaissance in 1994, the sites lie in a large sandy blowout in the western central part of the training area. At that time the site consisted of one Susquehanna

Broadspear projectile point recovered from the surface. No further testing was conducted. The point was deemed an isolated find and the site was listed as not eligible for NRHP.

In 1997, a systematic pedestrian survey of the area was performed. This effort resulted in the recovery of 12 whole or partial projectile points and bifaces (a Jack's Reef corner-notched, a Steubenville Lanceolate, a possible Meadowood, a Saugeen fossiliferous point, two Brewerton side-notched and a Susquehanna Broadspear are identifiable.) Three points have broken bases and can only be identified as two lanceolates, one of Onondaga chert and the other of Upper Mercer chert and a triangular point of Onondaga chert. A broken preform and a single-notched biface were also recovered along with several chert flakes and some prehistoric ceramic fragments. Four Phase II 1x1 meter test units at the eastern end of the site were inconclusive and the site was protected pending further testing. In 1998, another pedestrian survey yielded 2 projectile points (a Brewerton corner-notched and a Levanna), 2 bifaces (a trianguloid knife and the medial section of a point) and four pieces of debitage. The eastern end of the site, which was believed to be intact rather than sand blowout, was shovel tested at 20-meter intervals. No cultural material was recovered from shovel tests. Ten more 1x1 meter test units were excavated at the eastern end of the site. None yielded cultural material.

Based on the negative findings during controlled excavation, the eastern end of the site was recommended to be returned to training status. The western portion, although disturbed by military and borrow activities and erosion, was considered to have research potential due to the wide range of diagnostic artifacts found there and remained protected. In 1999, three 5x5 meter test units were opened in locations based on previous concentrations of artifacts, burnt bones and stains. Testing determined that the bones and stains were associated with fairly recent military activities and dumping. No cultural materials were recovered and the western portion of the site was removed from protected status. Deep trenching using backhoes operated by military personnel was performed in the exposed sandy portion of the site in order to judge the amount of prior disturbance and to determine the existence of any buried stratigraphy. All of the three trenches dug revealed evidence of prior trenching and disturbance. Also, the area is known to have been designated an impact area at one time.

Based on these findings, it was determined that stratigraphy and context associated with the site that once existed in this area has been destroyed. The entire site was removed from protected status. No further testing is recommended although future visits for artifact recovery might be informative. The site is now part of an enclosed perimeter associated with Fort Drum's unmanned aviation vehicle mission.

FDP 1037 TA 5D

First reported in 1994, the site consisted of a scatter of water worn cobbles similar to those at FDP 1011, FDP 1032 and FDP 1036 all of which may be prehistoric cairns. The feature was disturbed. It lay in a vehicle trail, and a pedestrian survey of the immediate area failed to yield any cultural material. No further testing was performed and the site was listed as not eligible for NRHP. By, 1999, the exact location of the cairn was in question but surficial evidence was eventually located in the general vicinity. A bisection was begun using a backhoe due to the heavily compacted state of the feature which resulted from its location in a dirt road. Testing found it to be disturbed as evidenced by bovine faunal remains, glass and nails throughout the feature. Due to the presence of additional cairns across Munn's Corners Road in Training Area 6C, further reconnaissance is recommended in order to locate any more cairns in this area.

FDP 1096 TA 5D

Located during a Phase I survey of the training area, the site lies in a sandy road at the tip of a ravine. The artifact assemblage consists of one Onondaga secondary flake, seven pieces of Onondaga debitage and a Pomranky projectile point (in 2 pieces). This site was incorporated into FDP 1151 in 2000 as referenced in project 2000.195.

FDP 1099 TA 5D

Located during a Phase I survey of the training area, the site lies in a sandy road along a ravine. The site consists of a single Moorehouse Onondaga chert flake. This area has since been incorporated into FDP 1151 and is managed accordingly.

FDP 1282 TA 5D

Located during an informal pedestrian survey, FDP 1282 (2013.001) appears to be a cairn, although the few visible rocks are somewhat more angular than the cobbles of FDP 1278. It is located approximately halfway between that site and FDP 1212, another cairn site (2001.008). If areas with documented cairns are ever requested for construction, additional evaluation and consultation will be performed at that time.

FDP 1113 TA 5D

Located during a Phase I survey of the training area, the site lies in a sandy blowout. The artifact assemblage consists of a possible Meadowood projectile point of Onondaga chert and several fragments of bone. Also present at the site are a number of historic artifacts that give the site a late 19th century context and a second site number of FDH 1154. All artifacts were found on the surface of the blowout. The site is being considered part of the FDP 1154 complex. Further evaluation and testing is recommended in order to define this site and its boundaries prior to consideration for the NRHP.

FDP 1151 TA 5D

FDP 1151 is also known as Fort Drum's Calendar Site and is approximately 30 acres of sandy land, covered with stone tool debris, located just north of the Great Bend of the Black River. The site was identified by the Fort Drum archaeological survey in 1999. Dr. Anthony Aveni, noted Archaeo-astronomer from Colgate University assisted the Fort Drum team in analyzing the site and is responsible for identifying the significance of the presence of paired stones marking one of the alignments. He also guided an approach to analysis that considered the probabilities of the stones being placed at random by nature versus being deliberately placed by humans. At this point, the evidence supporting the hypothesis of deliberate placement to match astronomical events is overwhelming. In addition to flakes and a small number of projectile points, the site features over 400 small concentrations of fire-cracked rock and mounds, some of which conceal additional concentrations of fire cracked rock. Radio carbon (C-14) dates at the site range from approximately 3300 - 1100 BP with the earliest dates recovered from a sample taken 80cm below the surface in what appears to be the most central area of the site. A comparison of the site with an analysis of indigenous pathways that cross Fort Drum discovered that five indigenous pathways intersect in the immediate vicinity of the site.

A series of consultation and Head of State visits to the Calendar site have taken place over the years including Onondaga Leadership, Chief Irving Powless, Hawk Clan Mother Dorothy Webster, Beaver Clan Mother Wendy Gonyea, Faithkeeper Tony Gonyea, and Tadadaho Chief Sidney Hill; Oneida Leadership including Nation Representative Ray Halbritter, Bear Clan Men's Council Representative Brian Patterson, and Turtle Clan Representative Dale Rood; and Mohawk Leadership including Chiefs Ernest Benedict, Alma Ransom, and Hilda Smoke, Subchief Cheryl Jacobs, and Elder Myron Clute. We have also had two meetings at the Colgate University Planetarium where we have been able to go back in time at the Fort Drum site in order to experience how the site helps to track the movements of the moon over the course of the Lunar Year. In 2007, Sheree Bonaparte, THPO of the St. Regis Mohawk Tribe, organized a solstice sunrise celebration at the site that included students from the Mohawk Freedom School and participation from Peter Jemison of the Seneca Nation and Doug Harris from the Narragansett.

One of the most interesting aspects of FDP 1151 is the distribution of over 500 glacial boulders across the landscape. Of special note are three massive boulders centrally located near the western boundary of the site. Two of the boulders are in a perfect north to south magnetic alignment, and the third marks a line of slightly smaller boulders that leave the area on an azimuth of 8 magnetic degrees north. What appears to be a man-made modification on the southern large boulders creates a 'seat' where the occupant automatically looks along the azimuth. It is important to note that 8 magnetic degrees north matches the general alignment of

the Perseid meteor shower of mid-August, a very important astronomical event for some of the indigenous nations of the northeast.

An alignment of paired stones begins midway between the north south boulders at an azimuth of 65 degrees. This alignment marks the sunrise at the summer solstice, but more important it also marks moon rise at the beginning of the Mohawk lunar year. During a visit to Fort Drum by Mohawk elders, Elder Myron Clute explained that the solstice is important to Europeans, but that Fort Drum's site is about the moon. He drew a map of the night sky in the sand while explaining that the 65 degree azimuth marks moonrise at the beginning of the Mohawk Lunar Year and at 113 degrees, where we find an alignment with a burned area to the southeast of the center boulders that marks the midpoint of the Lunar Year. According to Mr. Clute, this azimuth matches the rise of the moon being chased by the Dog Star across the sky. This alignment was also recognized by two Algonquin elders from Sette Iles Quebec during a re-enactment at one of the Colgate Planetarium meetings. FDP 1151 was also described by Tadadaho Chief Hill in a reference to the Haudenosaunee Thanksgiving as a place where the "stars whose names we have forgotten" may have been celebrated. There is one more possible alignment between a notch created by the first set of paired stones in the 65 degree alignment and a boulder to the east that matches sunrise on the spring and fall equinox.

Immediately west of the site are two large sandy mounds, one of which yielded a layer of burned soil containing chenopodium or goosefoot seeds, and evidence of ochre staining. To the north, ochre staining was also observed in the eroded sandy soil.

In addition to the C-14 dating of numerous features, the Fort Drum team mapped, measured and described of all stones larger than 25cm in circumference found on the site. They also mapped all of the fire cracked rock features and mounds. archaeological analysis of the site has included limited excavations. These excavations demonstrated that the large boulder at the 8 degree azimuth was deliberately moved into its current location by undermining the soil beneath it, and yielded an artifact with markings consistent with a crescent moon and associated star. The excavations also documented the presence of a large post that may have burned located behind the current terminal boulders of the 65 degree azimuth. Fort Drum also commissioned a series of artist renderings so that the stone alignments can be seen more clearly.

The site has been set aside for protection in perpetuity by the Fort Drum Garrison Commander, and is currently signed as off limits. It is identified as a sacred place to be respected during all military training activities in the vicinity and subject to frequent stewardship inspections by members of the Fort Drum cultural resources team. After consultation, we agreed to use beach grass vegetation to stabilize the eroding sand on the site, and we have also agreed to systematically remove trees that were planted on the site before its significance was appreciated.

We plan to leave a ring of outer trees to protect the site from light pollution emanating from the nearby military airfield.

FDP 1154 TA 5D

Located during a Phase I survey of the training area, the site lies in a sand blowout adjacent to a ravine that leads to the West Branch of Black Creek. The artifact assemblage consists of a wide variety of debitage including a large amount of Onondaga chert, with thinning and pressure flakes; white quartz flakes; LeRay chert flakes; Upper Mercer chert flakes; and several cores. Bifacial artifacts include a possible broken end scraper, two projectile point mid-sections, , a combination scraper, an acute angle biface, a combination graver/scraper and a graver all of Onondaga chert; a white quartz point mid-section; an unidentified biface of LeRay chert; an endscraper of heat-treated Onondaga chert; a possible red slate abrading stone and a possible grooved axe of heat-treated sandstone. The assemblage seems to suggest a Meadowood affinity. In addition to the broken Meadowood point found at FDP 1113, the crescent blade and the fine flaking techniques used to manufacture the bifaces argue for a Meadowood association. Phase II excavations led to the conclusion that although the area of the site which is exposed sand has been deflated or destroyed, there may be intact deposits in the higher, wooded edges around the site. The site was protected pending further investigation of these areas and the FDP 1113 site. Further testing in undisturbed areas and in the blowout to confirm the deflation of that part of the site is recommended prior to consideration for NRHP. In 2018, it was determined that the artifacts from this site need to be re-evaluated (2018.011). An artifact incorrectly identified as a crescent blade was taken out of secure storage and returned to the collection.

FDP 1155 TA 5D

This site is located in a sand blowout in the eastern side of the training area, just west of the New York Central Railroad. A surface scatter of bone fragments first indicated the presence of a site. Due to the site's proximity to FDP 1113, FDP 1151 and FDP 1154 and a tentative diagnosis of one piece of bone as dog, the site was considered to be a possible dog burial in keeping with the Meadowood context of the surrounding sites. The dune from which the bone was eroding was profiled. Bits of mortar and other historic cultural material found among the bone fragments led to the conclusion that the site was actually the remains of some ephemeral historic occupation, perhaps related to construction of the railroad.

FDP 1161 TA 5D

Located during a Phase I survey of the training area, the site lies in a sandy blowout. The artifact assemblage consists of a fragment of a prehistoric stone pipe stem or bead, 1 piece of Upper Mercer chert debitage and 3 pieces of LeRay chert blocky debitage recovered from the surface of

the blowout. No further testing was conducted. Extensive Phase II evaluation was conducted in 2010 prior to the proposed construction of the ERMP Warrior Unmanned Aerial System (UAS) runway adjacent to the site. The results showed the site to be either deflated or eroded down to glacial soils. It was removed from the protected coverage and returned to training.

FDP 1167, FDP 1168, FDP 1169 TA 5D

These numbers were originally assigned to clusters of positive shovel tests located during the Phase I survey of the training area. The artifact assemblage consisted largely of blocky LeRay and Onondaga chert debitage and two Vanport (Flint Ridge) chert thinning flakes. It was later decided that the wide dispersal of materials did not warrant a breakdown into individual sites. The numbers were retired and the material was reaccessioned under the original project number (1999.101). Further testing is recommended at the location which yielded the Vanport thinning flakes.

FDP 1171 TA 5D

This site was discovered when a series of cobbles was noted in a packed sand roadway. There were features reported as cairns in the vicinity and the area was sensitive for WWI era materials. The packed sand road provided access to a borrow area and was extensively used by heavy machinery. As a result, the compaction made the feature nearly impossible to excavate by hand. Using a backhoe operated by military personnel, the cultural resources team monitored excavations that began by skimming in 10cm increments. The first skim yielded an impressive deposit of cobble and one unidentified rib, much too large to be human, most likely cow or horse. Once the feature was determined to be a cairn, controlled excavation was completed, and no other artifacts were found.

FDP 1174 TA 5D

This site may have been incorporated into FDP 1151.

FDP 1193 TA 5D

FDP 1193 was discovered during a survey for a PW borrow pit. The proposed borrow pit was moved to avoid the adjacent site FDP 1161. The Phase IB survey consisted of surface collection that led to the discovery of a possible broken tool on transect # 3, shovel test pit # 20. Given that the borrow undertaking would remove all material from the location, he decision was made to open two test units. One was in the immediate location of the artifact recovered, and one was in an area nearby. The purpose of the second unit was to determine the degree of previous military disturbance in the general project area.

The first test unit did not produce culturally altered lithic material and showed evidence of military disturbance. The second test unit showed obvious military and historic disturbance. The extent of disturbance and the lack of cultural material present indicate the probability of finding potentially National Register deposits at this location is low. No further archeological investigation was recommended for this area and upon completion of consultation, borrowing activities initiated.

FDP 1212 TA 5D

This site is a cairn of unknown origin discovered during the 2001 field season. Since one possible function of a cairn is to be a grave marker, it was recommended that this site be protected and no excavations conducted due to the possibility of inadvertent discovery. During the 2003 field season Fort Drum Cultural Resources implemented a new form of site protection. The Cultural Resources Team in cooperation with the LRAM (Land Rehabilitation and Maintenance) Program chose the small partially exposed cairn, FDP1212, to begin this innovative technique. A layer of geo-fabric was placed over the cairn followed by a layer of fill and a sign composed of durable vinyl approximately four by eight feet in size and printed with the phrase "Attention Do Not Dig by Order of the Commander, Cultural Resources Sensitive Site". Another layer of fill and finally a layer of rocks on the surface covered this posting. This form of site protection allows the Cultural Resources Program to open the area for pedestrian use and still maintain site integrity and anonymity for the site location. Should someone inadvertently begin to dig on the site, they would encounter the buried posting.

FDP 1275 TA 5D

FDP 1275 is located to the southeast of FDP 1151 in a small sand blowout. An informal pedestrian survey revealed a number of lithics (2011.035). Artifacts included a possible blade tool, a possible punch, a LeRay chert secondary flake, several pieces of LeRay and Onondaga chert debitage and an unidentified lithic. A close interval shovel test grid was dug over the blowout and surrounding area to look for intact soils (2012.048). Twenty-nine shovel tests produced potential prehistoric cultural materials, mainly in the form of LeRay chert shatter. A small number of quartz flakes and shatter were also recovered, as were 3 chert secondary flakes and 1 chert tertiary flake. Four pieces of what may be Onondaga chert shatter were also found. Positive shovel tests with intact stratigraphy were cruciformed. Based on the results of the cruciforms, four locations were recommended for Phase II test unit evaluation. A surface collection grid was also established. Notable artifacts from this grid included a possible quartz punch, a projectile point tip, a possible unfinished, eared projectile point base and a possible scraper, all of LeRay chert. Several chert flakes, a number of pieces of edge-modified chert shatter and some unidentified lithics were also recovered, as were a small number of quartz flakes and shatter. Many of the lithics from both the shovel tests and the collection grid were very weathered, making it difficult to determine whether they had been culturally modified. It appears that the most convincingly cultural artifacts were found on the surface of the blowout.

This would seem to indicate that the site is deflated, however test unit evaluation is still pending to determine whether the site is NR eligible.

FDP 1278 TA 5D

FDP 1278 was located during a pedestrian survey for another project. The site consisted of a small concentration of river cobbles visible through the sand and grass that may represent a stone cairn. Fort Drum has a number of stone cairns, mostly constructed of river cobbles. Their origin has not been unequivocally determined but they are generally assumed to be prehistoric. These cairns tend to occur in areas where river cobbles are not native, indicating that the component materials had to have been deliberately transported into the landform. One such site, FDP 1212, is located approximately 165 meters northeast of FDP 1278. If areas with documented cairns are ever requested for construction, additional evaluation and consultation will be performed at that time.

FDP 1017 TA 5E

Located during a surface reconnaissance of the area, this site lies just east of Munn's Corner's Road between the road and the Ammunition Supply Point at a spring head of a hollow that slopes to the Black River. The area is a highly eroded sand blowout from which Vinette II Dentate ceramics (similar to ceramics from FDP 1015 and FDP 1018) and chert debitage have been recovered. LeRay and Onondaga chert flakes, some heat-altered, have also been recovered. Thirty-two shovel tests at 10 meter intervals over the area failed to produce any cultural material. A Phase II test unit placed at the site of the ceramic concentration yielded seven additional pieces of ceramic from (arbitrary) level 4, however glass and concrete were recovered from (arbitrary) level 7 indicating disturbance. Two other test units were placed higher up in the dune but yielded no further prehistoric cultural material. Conclusion is that this site is either highly disturbed or sterile. Cultural material may have derived from fill used in patching activities to stabilize the dune. No further testing is recommended.

FDP 1022 TA 5E

See FDP 1011 and ASP Summary above.

FDP 1148 TA 5E

Located during a Phase I survey of the training area, the site lies just north of the ASP fence in a sandy blowout near a springhead that eventually drains into the West Branch of Black Creek. At first, the number was assigned to a single sandy area where a large quantity of debitage was recovered from the surface. The artifact assemblage consists of a large number of Onondaga chert flakes, some LeRay chert flakes, and a possible flake tool made of Coxsackie chert, fire-

cracked rock and a possible bone awl. A single Phase II test unit in the blowout itself yielded few artifacts and no features. Subsequent investigations at nearby FDP 1022 revealed intact strata in the grassy areas around the blowout and led to the conclusion that FDP 1148 and FDP 1150 should be included in the FDP 1022 complex.

FDP 1150 TA 5E

The site number FDP 1150 was assigned to a scatter of fire-cracked rock believed to be a hearth and the Genesee point and LeRay and Onondaga chert debitage recovered from the surface nearby, but Phase II excavations of FDP 1022, a nearby site, led to the conclusion that FDP 1150 is part of the FDP 1022 complex. The hearth remains protected. The site also yielded a scraper with wear patterns indicating that it had been used hundreds of times, perhaps in processing meat and hides. See also FDP 1022 and FDP 1148.

FDP 1153 TA 5E

Located during a Phase I survey for a REC, this site lies just east of the South Tank Trail in the northwest corner of the training area. The site number was assigned to 4 shovel tests which spanned 140 meters and yielded chert debitage and a bone fragment. Cruciforms at an unknown interval yielded possible chert debitage from one of the shovel tests. No further testing was performed and land use was authorized outside the area of the positive shovel tests. Further evaluation is recommended prior to consideration for NRHP.

FDP 1165 TA 5E

Located during a surface reconnaissance of the area, this site lies in a sandy blowout just west of the ASP fence. The artifact assemblage included remains of a hearth and debitage. Given the high incidence of sites located in sand blowouts in this area, further testing is recommended prior to consideration for NRHP.

FDP 1173 TA 5E

Originally identified during a Phase I survey of the training area, the site lies in a sandy blowout just west of the New York Central Railroad tracks. A small bifurcate projectile point, probably Erie variety (6300 B.C.-5800 B.C.), was recovered from the surface of the blowout along with multiple pieces of Onondaga chert blocky debitage, a possible greenstone, a piece of red slate and several pieces of fire-cracked rock. A Carbon-14 assay from the vicinity of the projectile point returned a date of 1140 A.D. or Early Late Woodland. Four Phase II test units were excavated. Large quantities of fire-cracked rock were recovered along with Onondaga and LeRay chert debitage, red slate, quartz debitage, burned bone and charcoal, a piece of jasper and several stones which might be greenstones. Information from the Phase II excavation, project

2000.056, was inconclusive and did not resolve the disparity between the time periods of the projectile point and the Carbon-14 date or establish site boundaries. The site was protected and further testing is recommended prior to consideration for the NRHP. See also the discussion for FDP 1110 since these two sites may originally been part of a large occupation, divided when construction of the railroad destroyed a corridor down the middle.

FDP 1217 TA 5E

The site was discovered as a positive STP in 2000 and consisted of Onondaga chert shatter. In 2004 the site was evaluated using two test units. Two features were unearthed during the investigation. One may represent a hearth and the other a post mold. The artifacts recovered included chert shatter, heat treated flakes, red jasper, and quartz shatter, carbonized seeds and burnt bone. Historic era artifacts were recovered in the first 20 cm and consisted of earthenware sherds, cut nails, brick, and green glass. Based on the lithics recovered to date, it is difficult to provide a cultural or temporal context. However, the concentration of artifacts found in both test units, the variety of source materials used for these artifacts, evidence of a high frequency of heat treated flakes and the proximity to other sites across Munns Corners Road, makes this area an ideal candidate for further investigation. Further studies should analyze the possibility of a relationship between this assemblage and that of several sites located on the west side of Munns Corners Road. This area should remained protected and off limits until further investigation can be completed.

FDP 1218 TA 5E

This site was identified as a cairn on the east side of the ASP fence during a timber harvest survey.

FDP 1301 TA 5E

Identified during Phase I survey for a timber harvest, the site is located in a wooded area inside the Field Ammunition Supply Point. The artifact assemblage consisted of a number of LeRay chert secondary and tertiary flakes and shatter from a shovel test and its cruciforms. A rock pile consisting of four large boulders, one of which was split in half was located approximately 20m southeast of these shovel tests. One of the boulders was angular and positioned in an upright fashion like a "fin". The area was flagged for avoidance.

FDP 1302 TA 5E

Identified during Phase I survey for a timber harvest, the site is located in a sandy blowout inside the Field Ammunition Supply Point. The artifact assemblage consisted of 2 edge-modified Onondaga chert flakes and secondary and tertiary flakes of the same material and a tertiary flake of unidentified chert from the surface of the sand blowout. An unidentified lithic triangular flake

with all edges modified was also recovered. Short interval shovel test survey over the blowout and the undisturbed area adjacent to it yielded 4 chert flakes. The area was flagged for avoidance.

Historic Site

FDH 1414, Raised Water Pipe Line, TAs 5E, 6C, and 8B

FDH 1414 was first identified with the location of a set of concrete columns spanning a ravine near the railroad tracks in Training Area 5E. These were determined to be the columns depicted in a photo in the Program's collection labeled "Pipe Line Crossing Trestle – Pine Camp 1910". Further research led to a 1935 map of Pine Camp that showed a Pumping Station on Black Creek and a water line leading to a steel tank (250,000 gallons) near the Black River. Field reconnaissance led to the discovery of another set of columns crossing a beaver meadow and a series of low concrete pads and a concrete wall on the bank of Black Creek. The features are definitely industrial in nature. A third set of columns that spanned another ravine was noted inside the Field Ammunition Supply point.

TA 6

TA 6A is the only alluvial flood plain land form on Fort Drum and is nestled within the Great Bend of the Black River.

Prehistoric Sites

FDP 1074, FDP 1075, FDP 1076, FDP 1077, FDP 1078 TA 6A

These sites are northwest of the Black River in the southeast corner of the training area. These sites are located in close proximity to one another with the furthest two being 400 meters apart in distance. Proximity in association with similarities between the artifacts lead to the conclusion these 5 sites are most likely smaller components of a larger site. All sites have produced LeRay lithics both on the surface and in sub surface strata. FDP 1075 yielded Onondaga shatter from the surface. The majority of artifacts recovered are LeRay chert shatter and secondary flakes, leading to a determination that these sites represent LeRay chert reduction locations. Phase I investigations were completed on all sites and additional test units were placed at the most productive locations. In 2008, a proposed borrow required further testing in the immediate vicinity of these sites. The resulting data yielded the recommendations that FDPs 1074 and 1075 be considered isolated finds, that FDPs 1058, 1059, 1060, and 1077 may be significant sites and should be protected. During this survey additional sites were discovered including FDPs 1258, 1259, and 1260.

FDPs 1079, 1080, and 1081 TA 6A

This site complex lies 200-400 meters east of the Black River and is also located in the southwest of training area 6A along the Glacial Lake or Black River paleo shoreline. Artifacts recovered include fragments of LeRay chert shatter and LeRay chert reduction flakes. The FDP 1081 component may have subsurface features. This site complex should be protected until there is an opportunity for further evaluation.

FDP 1082 TA 6A

This site lies within the floodplain of the Black River in a silty-sand deposit. Phase I shovel testing followed by cruciforms at five-meter intervals recovered subsurface cultural deposits including 2 large scrapers of LeRay chert material and several fragments of LeRay chert shatter. The site was relocated and site boundaries established using shovel test results and protected in preparation for a timber harvest in 2006. The site is potentially significant and eligible for the National Register under Criterion D.

FDP 1258 – FDP 1260 TA 6A

This series of sites was discovered during a Phase I survey for a proposed borrow pit. The site assemblage for FDP 1258 consists of lithic debitage of LeRay and Onondaga chert, quartz flakes, argillite debitage, four hafted projectile points of LeRay chert, quartzite, and argillite and one unhafted biface of unidentified non local chert material. The site has been posted as off limits and is protected. The combination of projectile points and scrapers is a strong indication of the site being a fishing camp with the argillite indicating that the fishing people here had links to the south. The additional two sites also feature lithic assemblages and FDP1259 also yielded several undecorated fragments of prehistoric ceramic.

FDP 1274 TA 6A

The site was first identified during survey for a borrow pit (2009.015). The original shovel test and its cruciforms yielded two LeRay chert secondary flakes, chert shatter, one quartz flake and 2 pieces of glass. The resulting test unit (2009.052) produced a large amount of LeRay chert and quartz shatter and microshatter. Chert and quartz flakes and microflakes were also recovered. Further evaluation in 2010 (2010.058) provided a location yielding additional in situ cultural material. An approximate 15m radius circle around this unit was posted with off limits signs.

Historic Sites

FDH 1314, Historic Dump, TA 6A

FDH 1314 was discovered during monitoring of the new fence placed along the western boundary of Training Area 6A. The site was identified as a surface scatter of historic artifacts. These included broken milk bottles, earthenware fragments, historic ceramic fragments including whiteware, flow blue and porcelain, pressed glass and assorted pieces of metal, brick, mortar and clay pipe. The site does not appear on any historic maps, though a road in its general vicinity does appear in the 1941 aerial photos of the area. There is nothing in the artifact assemblage to indicate that the site is anything other than an historic trash dump, probably related to nearby farmsteads.

FDH 1322, Prentice Farmstead, TA 6A

FDH 1322 is located in what is now a heavily forested area adjacent to the bend in the historic road as depicted in the Beers 1864 Atlas of Jefferson County, which shows the farmstead as belonging to L.W. Prentice. Judgmental STPs confirmed a graded road with a gravel base. The intact perimeter of the limestone foundation clearly outlines the rectangular shape of the main house structure located on an elevated bluff. The entrance to the structure faces south towards the road. Glass bottles and ceramic are scattered throughout the area. Another small structure closer to the historic road was also noted.

FDH 1323, Losee Farmstead, TA 6A

The C. Losee Farmstead is marked by a large maple tree and Tiger Lilies. The site is currently located along the intersection of two tank trails, formerly historic roads. The site consists of a main structure whose foundation is constructed of limestone rocks, some lined with what appears to be mortar. A few red bricks were also noted on the interior. Immediately behind the structure is an elevated and level platform similar to those used for barns or silos, but no associated structure was confirmed. It should be noted that some stones and red bricks from this farmstead may have been removed as some were found atop a sand dune across the road. Also immediately across the road are remnants of a small apple orchard, likely associated with the farmstead. It is important to note that the Cultural Resources team is happy to work with the foresters and scenario writers if orchards need to be recovered or developed to be used as training assets.

FDH 1324 TA 6A

This site represents the largest of three farmsteads located in this area of TA 6A. Five separate structures, including a silo, were identified. The cement structure of the silo is relatively intact. There are at least three rectangular concrete foundations associated with the silo. The main house is clearly indicated by a below ground level foundation whose intact stone staircase marks the entrance. While subdivisions of the structure are discernable, its evolution can be identified by its northern extension and a possible porch made in concrete as opposed to cut limestone. The farmstead is located on a high bank overlooking the Black River and between two prehistoric

sites (FDP 1077 and FDP 1078). Oral accounts suggest that the site location may hold evidence for the development and rise of unions in the region. Located directly across the river from the Deferiet's St. Regis Paper Mill, it has been rumored that scab labor camped there during the labor unrest of 1915. While difficult to confirm, the site's location warrants further investigation. The site is currently protected by the off limits boundary for FDP 1078.

TAs 6B and 6C

These training areas are located on the sandy bluffs due north of the Great Bend of the Black River. For all intents and purposes, this area is essentially a continuous zone of prehistoric occupation that began when the glacial ice began to melt 13,500 years ago. The area is in high demand for development, and each project footprint proposed for construction south of the Munn's Corner's road is subjected to thorough survey and evaluation. The airfield barracks were able to be located due to the fact that a portion of the hogs back land form was removed along with its archaeological remains in the 1980s and used for borrow yielding a disturbed and empty area. It is useful to remember that many of these sites which were originally numbered independently during the course of discovery should be considered and managed as complexes.

The landform should also be considered for study of indigenous land management methods like controlled burning for maximized production of useful species like blue berries, pitch pine, maple, oak and beech. These species all compliment the area as a fishery.

FDP 1004 (A045-21-0109) TA 6B

Non-diagnostics artifacts include an ochre stained bowl fragment, numerous flakes, drill fragments and un-decorated pottery sherds. Diagnostic artifacts include a Kramer or small Adena point and Point Peninsula cord impressed criss-cross ceramics. Both the projectile point and pottery suggests the site to be of early Middle Woodland provenience. It is important to note that this variety of criss-cross differs from the later Kipp Island type, which is thicker and does not display the characteristic rocker dentate motif apparent in earlier phases of Point Peninsula culture. The site may be a satellite component (possibly a fishing station) of the FDP 1093 habitation district. In addition, the site may contain human or other mammal cremains. However, many of the site's artifacts disappeared after the 1993 field survey, including calcined bone fragments and yellow ochre. The sited is potentially eligible for NRHP. Further investigation is needed for proper evaluation.

FDP 1012 TA 6B

This site is most likely an extension of FDP 1004. Investigation of the site was performed by the 1993 cultural resource survey where stratified flakes were apparently identified. Further

investigation is recommended with the possibility of redefining the site boundaries in this vicinity.

FDP 1016 (NYSA 045-11-0184) TA 6B

This site is located on a bluff overlooking the flood plain of the Black River. A lithic surface scatter discovered by CR personnel identified the site. The lithic scatter consisted of chert debitage and a corner-notched biface of LeRay chert, which were discovered in a wind-eroded dune formation. A surface collection of the site was made at the time of the discovery. A Phase IB investigation was recommended for the site following the 1993 field season. FDP1016 yielded numerous pieces of chert debitage including flakes and a knife constructed of Kalkberg chert which originates in the Hudson Valley that tested positive for rabbit and dog antisera. According to the late Dennis Stanford, it is possible that this knife pre-dates Fort Drum's Clovis Point, making it in excess of 13,500 years old. The dunes of TA 6B are subject to erosion, so the CRP may consider re-vegetation at some point to stabilize the site. The results of shovel testing from the 2019 season and further artifact analysis will be used to redefine the site boundaries for FDP 1016.

FDP 1019 and FDP 1020 TA 6B

FDP1019 and 1020 were first identified in adjacent sand blowouts on a bluff above the Black River in 1993. FDP1019 is a multi-component site which has produced a number of diagnostic projectile points including a Jack's Reef corner-notched, Brewerton side-notched and a Paleo-Indian Agate Basin (a long narrow spear point). In addition, several cores of rare black Vanport chert and primary flakes of Morehouse Onondaga chert have been recovered. The geological formation of this site and its proximity to the Black River indicates a propensity for deeply buried deposits. The site is potentially eligible for NRHP and was placed in protected coverage.

FDP1020 has not produced diagnostic artifacts. However, the exotic chert types recovered there indicate an affinity to other areas of the sand knoll, including FDP1019. The 1995 Cultural Resource Survey conducted a Phase II Investigation of both sites using a five-meter shovel test grid. Shovel testing at sites of this type has yielded very few artifacts, however as the dunes shift, sand blowouts continue to produce a vast array of cultural material. This pattern would seem to indicate that cultural materials on either side of the blowouts must be deeper than the limits of a shovel. The average below surface depth of the blowout areas appears to be between one and three meters. Given this possibility as well as the artifact assemblage from FDP1019, the decision was made to treat the sites as one and create a single off limits area. This decision was reversed in 2016 as part of a project to bring site data up to the new and more rigorous GIS reporting standards sent out by the US Army Installation Geospatial Information & Services (IGI&S) Program. It was realized that by creating one large site with two site numbers, the

program was double-counting off limits acreage rather than having the two sites split the acreage. Original survey maps were used to determine where to split the site.

FDP 1046 TA 6B

Sometime after this site was found and the artifacts curated, it was identified as having produced a possible killed Adena or Glacial Kame projectile point with red ochre staining (1995.26.002) in stratified soils and thought to be a potential burial context. Re-examination of the artifact (2018.011) identified it as a scraper or modified flake which did not resemble an Adena point at all. Both the 1995 report and curation log identified it as a modified flake. Examination under a microscope showed that the red "staining" was actually an intrusion in the lithic rather than pigment. The artifact was removed from secure storage and returned to the collection. The site remains Off Limits pending further evaluation.

FDP 1047 TA 6B

Initially uncovered during the 1995 Cultural Resources Phase I Survey, this site yielded 3 stratified cores of LeRay chert and a significant number of stratified LeRay waste flakes. Additional artifacts of LeRay and Onondaga chert were recovered from the surface. The site lies on a flat sandy plateau 80 feet above the Black River, and had positive cruciforms (radials) that extended for 70 meters from the edge of the bluff. No subsurface features were identified during the 1995 survey though the soil profile was intact at that time. FDPs 1046 and 1055 lie in close proximity to FDP 1047 and exhibit similar artifacts. The site perimeter was GPS'd in 2016 and added to Fort Drum's off limits coverage in GIS. The site is in the range fan of a small arms range which affords it additional protection. The bluffs in this area are experiencing mild erosion, so the revisits should include careful inspection of the bluff.

FDPs 1051 and 1052 TA 6B

As mentioned above, TA 6B is essentially a prehistoric site complex. Sites 1051 and 1052 represent surface finds of stone tool material that contribute to our understanding of the long term occupation of the landform.

FDP 1055 (NYSA 045-11-0208) TA 6B

This site was identified during the 1995 field season during Phase I surface collection. A bifacial LeRay chert blade and chert debitage were recovered. Phase IB shovel testing was conducted at 10 meter intervals to identify the subsurface integrity of the site. Shovel testing failed to yield additional prehistoric cultural materials. No diagnostic artifacts were recovered and the surface and subsurface integrity of the site has been compromised due to severe erosion and military

land use. Based on these results FDP 1055 on its own has been determined to be not eligible to the National Register of Historic Places. However, it falls within the protected area of FDP1019.

FDP 1267 TA 6B

Identified during survey for a Soldier Family Care Clinic, the site was located on a sandy bluff above the Black River. The artifact assemblage consisted of a projectile point tip, a knife or scraper, 1 secondary flake and 7 tertiary flakes, all of LeRay chert. The site was not endangered by the proposed construction and was not posted off limits but is considered to be eligible for the National Register. Further evaluation is necessary prior to any construction in the area.

FDP 1291 TA 6B

This site was identified during Phase II test unit evaluation of shovel tests prior to a road realignment project. The artifact assemblage consisted of LeRay chert, quartz and quartzite shatter and microshatter. A number of flakes were recovered but much of the rest of the material lacked apparent cultural modifications. One piece of cord-impressed, grit-tempered prehistoric ceramic was recovered from level 4. Two additional pieces with faint impressions and 5 undecorated pieces of ceramic were also recovered. The prehistoric ceramics were recovered from an area of very dark brown (10YR 2/2) sandy loam at 37cm below datum in level 4. This stain was designated feature 1. It also contained charcoal. The feature proved to be shallow and was not bisected. Charcoal samples were taken. Feature 2 was a circular stain of very dark brown (10YR 2/2) sandy loam that appeared at the same depth as feature 1. This feature also contained charcoal and was bisected by the east wall. Feature 2 proved to be very deep and contained a large amount of charcoal. Two samples were sent for C-14 dating. A soil sample from the upper portion of the feature returned a date of 1180 +/- 30 BP. A sample containing some of the wood from the bottom of the feature returned a date of 1170 +/- 30BP. Both dates indicate a Point Peninsula context consistent with the pottery. Although it is unusual that the unburned wood should not have decayed, it is possible that the fire around it was smothered and the anaerobic environment allowed the wood to remain intact. The presence of an earlier date below a more recent one and the fact that the feature did not extend into the upper levels of the unit argue for an undisturbed context.

The site is outside of the APE for the road project. An additional unit to determine the extent and nature of feature 2 should be dug when time allows or if the area comes under development.

FDP 1015 TA 6C

The site is situated on a sandy rise above the Black River. A surface scatter consisting of debitage and three projectile points identified the site. The projectile points are reminiscent of the Snook Kill, Brewerton and Jack's Reef types (Ritchie 1971; Justice 1986). Carbon-14 data suggest middle to late Point Peninsula occupation. Ceramics recovered include corded neck with

smooth body sherds (identical to FDP 1036 type) and complex dentate type. The latter is associated with late Point Peninsula culture. Carbon samples from this site produced the carbon-14 determination of 620 A.D. The distribution of occupation debris revealed several distinct clusters which extend along the edge of the bluff. The site is potentially NRHP eligible and is protected.

FDP 1018 (NYSA 045-21-0116) TA 6C

This site is located on the edge of a hogsback dune formation on a bluff overlooking a hollow, which slopes down to the Black River. The site produced 2 Vanport (Flint Ridge) flakes of Ohio origin intermixed with LeRay flakes in the second level of a shovel test pit along with Point Peninsula time period ceramics. The site is in close proximity to FDP 1015 and may represent a satellite workstation. Further is investigation is needed to adequately evaluate the site. The site is posted and protected and considered to be potentially eligible for the National Register.

FDP 1021 TA 6C

Identified by the CRP in 1994, FDP1021 is a multi-component site located on a sandy bluff above the Black River. The site was considered potentially eligible for the National Register and was placed off limits in 1994. Phase I shovel testing in 1995 produced a considerable amount of chert debitage, mostly from shovel tests along the bluff edge. Seibert stakes were placed around the site in 1997. Additional shovel testing in 2000 produced more chert debitage, prehistoric ceramics and a Saugeen type projectile point. Phase II test unit evaluations, in the vicinity of the shovel tests that yielded the ceramics, were also performed. A Carbon-14 sample from a hearth feature at this site returned a Late Woodland date of approximately 1490 CE.

Because of its elevation, a small portion of the site was always in demand by the military for communications training. In 2002, Cultural Resources and the Integrated Training Area Management (ITAM) program conducted a joint project to harden the top of the bluff using geofabric and crushed stone. Training is now allowed on this part of the site although the rest of the site remains off limits and is demarcated with OFF LIMITS signage, Siebert Stakes, and A-Jacks® protective barriers. The hardened portion of the site has also become an excellent location for archaeological public outreach. The barriers and signs are working well. Oneida Men's Council Bear Clan Member Brian Patterson organized a ceremony at this location to show appreciation for the efforts of Fort Drum's Cultural Resources team in 2002.

In 2012, a magnetometer survey of portions of the bluff was conducted and 3 test units were dug based on the results (2012.001, TUs 1-3). The only prehistoric artifact recovered was a LeRay chert tertiary flake.

This dune was also the location of officer tents during the earliest cavalry exercises undertaken at Fort Drum. FDH 1260 refers to the Cavalry Camp. These tents are visible in some of the popular panoramic photos taken during that time period.

FDP 1028 TA 6C

The site is eroding from the side of a parabolic eolian deposit. This dune is approximately 300 meters northeast of FDP 1032. The site produced Point Peninsula ceramics similar to the nearby FDP 1036 assemblage. Therefore, it is probable that the site is related to the FDP 1036/1032 habitation district. The site is currently protected and posted off limits. Further investigation is required to determine its potential National Register status.

FDP 1032 TA 6C

This stone cairn of river cobbles was located during surface reconnaissance in TA 6B. Several pieces of chert debitage were recovered eroding down the slope of a deep ravine. On top of the ravine, a small cairn or rock mound, was also located. Sixty-two shovel tests at 10 meter cruciform intervals around the area surrounding the cultural deposits yielded negative evidence for intact cultural layers or features, and no further cultural materials. Phase III excavation of the remnants of the cairn was conducted by the 1994 CRS as an emergency measure, and revealed a straight-sided pit below a pile of small to medium sized water worn cobbles. Charcoal, an ocher covered rock, and one Middle Woodland potsherd were recovered from the sub-mound pit. The site is considered to have been removed via controlled excavation. It is important to note that the cobbles do not occur naturally in the land form and the cairn is definitely not the result of clearing a farmer's field. All of the cairns built of water worn cobbles in the sandy bluffs of the Black River on Fort Drum are considered to be of indigenous origin.

FDP 1033 TA 6C

FDP 1033 consists of a possible Snook Kill point recovered from the surface by the Land Condition Trend Analysis Field Crew in 1991, and it was assigned a site number in 1994 and the area shovel tested in 1995 with negative results. The site is considered to be an isolated find.

FDP 1036 TA 6C

The site is sixty meters south of FDP 1032 and is located on a sandy dune above the Black River. Four stone cairns identical to the one at FDP 1032 were identified by the 1995 cultural resource survey in the vicinity of FDP 1036. One of the cairns, FDP 1032, was excavated during that year. Additional phase II units identified an occupation zone approximately twenty meters south of the cairns. This area which also includes FDP 1028 is a substantial Point Peninsula complex and is potentially NRHP eligible.

FDP 1048 TA 6C

One LeRay secondary flake was recovered on the surface. Further site evaluation is needed including sub-surface testing.

FDP 1049 TA 6C

An unknown number of artifacts were found in a subsurface context by the 1995 cultural resource survey. The site needs to be relocated and properly evaluated.

FDP 1053 TA 6C

The site is a multi-component lithic reduction station located on a rise above the Black River. The 1995 cultural resource survey identified three strata containing lithic detritus. Of the many lithic reduction stations on the installation, FDP 1053 has the best potential for yielding data defining temporal and spatial dynamics of prehistoric lithic industries. The site continues over the property boundary onto land owned by the Deferiet Paper Mill. Installation of an airfield fence in the vicinity of the site was carefully monitored by a member of the cultural resources team under Project Number 2008.027. Further evaluation is needed to define the site perimeter and identify NRHP status. The adjoining acreage has been prioritized for protection under the Army's Compatible Use Buffer Program, but potential contamination of the paper mill property may prevent federal involvement at this location.

FDP 1054 (NYSA 045-21-0132) TA 6C

This site is a small prehistoric encampment located on a flat, sparsely wooded plain situated on the edge of a ravine that overlooks the Black River. The site is located at an elevation of 700 feet AMSL and it is approximately 130 meters north of the Black River. The site was first discovered during the 1995 field season when lithic material was uncovered during Phase IB shovel testing. Cruciform testing failed to yield additional prehistoric cultural materials. No diagnostic artifacts were recovered and the surface and subsurface integrity of the site has been compromised due to extensive military training activities. Based on these results, FDP 1054 has been determined on its own to be not eligible to the National Register of Historic Places.

FDP 1098 TA 6C

This prehistoric archaeological site is located on eroding sands on a bluff overlooking the north shore of the Black River. The site originally yielded one Normanskill point, one biface, and debitage. It may date back over 13,500 years. The site occurs in eroding sand, but is in stable condition. It may well be a component of Site 1028.

FDP 1285 TA 6C

In 2013, a possible Lamoka projectile point was found in a box of artifacts from the LeRay Mansion. The bag was labeled "N4878050, E444860, Surface, Isolated find, 8/7/91". It had not been accessioned. The handwriting on the bag appeared to belong to David Fuerst, a former Fort Drum Cultural Resource Manager. A file search was conducted. There are no site files for that year and the only project data is for 1991.01, a timber harvest in Training Area 3A. There is no fieldbook for Fuerst for 1991. Since Fuerst would have taken his UTMs from a paper map which would have been in NAD 27, the UTMs on the bag were converted to the current format of NAD 83. This resulted in UTMs of N4878272.256 E444887.913. These were in a sandy area which made more sense given the surface find attribution. This location was used to record the site point. The original UTMs, plotted in NAD 83, were in a wooded area.

In keeping the program's policy of accessioning artifacts under the year they were discovered in the field, the projectile point was accessioned as 1991.02.0001. A note was put in with the artifact explaining where an explanation could be found.

The site is located in a sandy area at the edge of a disturbed and eroding manmade ravine which has since been stabilized. It lacks the integrity necessary to make it National Register eligible. No further work is necessary.

TA7

Training Area 7 consists of a complex of seven sub-training areas bisected by NYS Route 3A. The western portion of the training area is the eastern margin of the Pine Plains Delta with very sandy soils. The central portion TAs 7B and C is Warren Swamp bisected by the Alexandria Road. These wetland systems link to Buck Creek and tributaries to the Indian River. South of Route 3A, the land forms are marked by a series of steep hills which were once used for trench networks during WW I training. TA 7 is also bisected by the Lake School Road which has been indicated on archival maps as an ancient Indian route connecting the Black River with points north and the Indian River.

FDP 1057 TA7B

First discovered, but not numbered, in 1989 by Louis Berger and Associates, the site was relocated and documented in 1995. It is located behind the Lake School Road Cemetery in TA 7B. The artifact assemblage consisted of 4 pieces of edge-modified LeRay chert shatter, 15 pieces of LeRay chert shatter, and two pieces of shatter of an unidentified type of chert from the

surface of a sand blowout. Phase I testing is recommended and the site is listed as NR eligible until it is evaluated.

FDP 1059 TA 7B

Originally discovered during a reconnaissance for a Record of Environmental Consideration (REC) in 1995 this site was described as a small prehistoric encampment located on a flat sandy area at an approximate elevation of 715 feet and lies approximately 100 meters south of a tributary of Warren Swamp, a branch of Black Creek. Initial investigation of the area yielded small fragments of LeRay and Onondaga chert material. Limitations on Missile Defense Survey funding prevented further evaluation or determination of a site boundary for FDP 1059, so the area requires further examination prior to consideration for FDP 1059 as a potential site on the NRHP.

FDPs 1121, 1122, and 1123 TA 7B

FDP 1121 consists of several surface finds recovered from a sandy blowout area interspersed with vegetation. The site assemblage contains several fragments of Onondaga chert shatter. FDP 1122 was also a surface find, and the shattered chert may be related to local deposits of this material. FDP 1123 was a possible feature characterized by red oxidized sand. Military debris was recorded at 48 cm below datum at this location confirming reconnaissance finds of extensive military disturbance in the area.

FDP 1181 TA 7B

This site was discovered during Phase I shovel testing survey in 2000. The artifact assemblage consisted of several stratified flakes. This site is listed as temporarily protected until further evaluation can be completed.

A Multicomponent Site

FDP 1198 and FDH-512, Ford Farm, TA 7B

The prehistoric component of this site was discovered when the program re-evaluated the Ford Farm (A045-21-0018/FDH-512) following identification of an 18th-century French gunflint in the site collection during curation. Discovery of the gunflint by ORISE Intern William Cooney on 26 February 2002 while curating the artifact assemblage meant that the site identification needed to be reconsidered with the possibility of multi-componency. The site had originally been evaluated during the Louis Berger survey in the 1980s under project number 1986.07.11. At that time it was classified as a typical farmstead, considered mitigated through the agreement with the NYSHPO and returned to training. A brief field visit to the site, conducted on 26

February 2002, revealed that no extensive impact has been made on the site since the Berger Phase II investigation in 1986.

Provenience research revealed that this flint came from Level 5 of TU 7, a 5X5 foot Phase II test unit, excavated 10 feet northwest of the northeastern corner of the farmhouse foundation at Ford Farm (Figure 2) in the 1986 LBA excavation. Levels 3 and 4 of TU 7 are interpreted by LBA (1994e: 12-42 to 12-43) as displaced fill excavated from the cellar of the Ford farmhouse as this building was constructed circa 1835. Level 5 in TU 7, the source of this gunflint, is a buried A horizon, a pre-1835 ground surface sealed by deposition of the fill excavated from the farmhouse cellar (Figure 3). It is therefore almost certain that this gunflint was recovered in a primary depositional context, related to pre-1835, occupation of the FDH 0512 area. Recovery in this stratigraphic context, beneath strata associated with the 19th-century occupation of Ford Farm, supports association of this gunflint with a pre 19th century European and Native American contact environment. As a result, the program initiated re-evaluation with a goal of determining whether additional 17th century material remained in situ at the site. It is also interesting to note that the Berger archaeologists had discovered wooden post features that they were unable to explain in terms of the lay out of the nineteenth century farm.

The first two test units in 2002 were placed as close as possible to the location of the original discovery of the gun flint and yielded trade beads, a possible Jesuit ring, and a partial adze. These artifacts suggest an early European contact period of the 17th century, possibly when Jesuit missionaries and French fur traders were beginning to explore St. Lawrence region and northern New York. Later test units were placed in order to determine the 17th century occupation site perimeter. These test units yielded additional cedar posts and a set of two nested hearth features that dated to 8010 and 8090 +/-60 BP respectively. As a result, it became clear that the site has an ancient Archaic component and so the additional site number of FDP 1198 was assigned. One of the cedar posts yielded a C14 date consistent with 17th century occupation.

FDH-512/FDP 1198 is without question one of the most significant sites on Fort Drum. Not only is the archaic feature highly significant, but this site is the only one south of the St. Lawrence in this region with in situ evidence of early contact between Europeans and Native Americans. The bead assemblage matches beads recovered at Cataraqui and Kahna wake confirming the influence of French trade and missionaries. One of the rings recovered has been confirmed as the type distributed by the Jesuits to encourage indigenous people to attend Roman Catholic church services. The site has been set aside for full protection. There is the distinct possibility that at least one hemlock or cedar post structure will be revealed if additional test units are opened. Since the three separate contexts of the site - the 19th century farmstead, the 17th century occupation and the 8000 BP occupation, have been preserved to date, continued protection of the small site should not pose any difficulties. The site will be monitored on a routine basis to make certain that the posted off limits signs are sufficient protection. Scholars

familiar with the Ft. Drum program are also working on the possibility of the site being noted on a 17th century French map.

FDP 1058 TA 7C

Discovered during a reconnaissance investigation for a REC in training area 7C this site consists of 2 flakes recovered from the surface. Repeated military use of the area has disturbed the surface of the site, but the area still warrants close interval shovel testing.

FDP 1060 TA 7C

Initially recognized during a reconnaissance of a REC in training area 7C, FDP 1060 contained several fragments of LeRay chert shatter. No diagnostic materials were found. The site is located in a sandy dune area and lays 150 meters north of Warren Swamp, a tributary of Black Creek. The subsurface integrity was unknown at the time of collection, and no subsurface investigations have been completed. Since the collection of these materials in 1995 the surface of the area has been disturbed by military activity, but the site location requires further evaluation.

FDP 1125 TA 7C

Discovered in 1999, this site consists of multiple fragments of Onondaga debitage including flakes. All artifacts were collected during a surface walkover; no subsurface evaluation was completed. Further evaluation of the site is recommended prior to consideration for NRHP.

FDP 1299 TA 7C

Identified during Phase I survey for a timber harvest, this site is located on a bluff above a tributary of Warren Swamp. The artifact assemblage consisted of a LeRay chert scraper, an edge-modified quartzite flake, a large quartz scraper and a small amount of other lithics. The site was flagged for avoidance during the harvest and should be evaluated.

FDP 1050 TA 7D

First discovered in 1994 when a Range Division employee took the Fort Drum archaeologist to the site, a surface reconnaissance was completed in 1995. The surface collection yielded several fragments of Onondaga debitage. Additional subsurface testing was completed during the 2000 Cultural Resources Phase I Survey of the training area and more thorough survey in 2011 under Project Number 2011.031. The northern boundary of the site may have been established by this survey, but the site may extend farther to the south than the survey boundary allowed. Phase II

test unit evaluation should also be performed to better assess subsurface integrity and the presence or absence of buried features in order to determine its eligibility for the NRHP.

FDP 1126 TA 7D

This site was a small lithic scatter consisting of a LeRay flake and debitage collected prior to an LRAM re-vegetation project. It requires no further attention.

FDP 1166 TA 7D

Recovered during a surface reconnaissance of the training area in 2000 this site consists of 1 Onondaga flake found on the surface. It was recorded in order to assist with planning for further investigation of the area.

FDP 1211 TA 7D

The site was discovered during the 2000 field season and was recorded as buried lithic evidence featuring Onondaga chert debitage. It was then recommended for further testing to evaluate its potential NR eligibility. Phase II excavations in 2002 were conducted to evaluate the site's potential significance. The excavations uncovered evidence of land disturbance, probably for training purposes and the sites information potential appears to be very limited. Further protection or evaluation is not recommended at this time.

FDP 1226 TA 7D

The site was discovered during a Phase I survey for a proposed timber harvest. FDP 1226 is a lithic scatter. The artifact assemblage consists of LeRay chert shatter and flakes, and the timber sale boundaries were redrawn in order to protect the site. Further evaluation is needed to define site boundaries.

FDP 1100 TA 7F

Discovered during a 1997 Phase I investigation, this site yielded 3 cores of Onondaga chert, multiple fragments of Onondaga shatter, and fire-cracked rock recovered from a surface collection. No subsurface investigation was completed at this site. Due to the amount of Onondaga chert material and the unknown nature of the soil integrity further testing is recommended for this site. Recent reconnaissance of the area has proved that the site is intact and no military disturbance is present. Further evaluation is necessary prior to consideration to the NRHP.

FDP 1180, and 1183 TA 7F

These sites were discovered during a Phase I investigation in 2000. The environment is wooded with infrequent exposed sandy areas and lies along the old Glacial Lake Iroquois shoreline. The artifact assemblage for FDP 1183 consists of one Turkey-Tail projectile point of Onondaga chert recovered from the surface. FDP 1180 yielded a possible Lamoka projectile point of Onondaga chert from a surface collection and a stratified Onondaga flake. Further evaluation of these locations are recommended due in part to the highly sensitive and culturally productive location along the shoreline and combined artifact assemblages.

FDP 1184 TA 7F

This site was discovered during a large acreage survey in training area 7F. Using the Fort Drum sensitivity model, this area was determined to be highly sensitive for prehistoric material. A possible Lamoka projectile point was found during a pedestrian walk over. Further testing of this area should be conducted.

FDP 1177 TA 7G

The site was identified during a Phase I investigation of the area. A stratified Onondaga chert flake prompted further investigation. Phase II investigation of the site proved negative for cultural materials and positive for military disturbance. Combined with the intensive Phase IB shovel testing survey of the immediate area no further evaluation of FDP 1177 is required. The site does not retain sufficient integrity or new knowledge to be potentially eligible for the NRHP. No further investigation or protection is recommended.

FDP 1178 and FDP 1228 TA 7G

FDP 1178 was first identified in an archaeologically sensitive land form during the 2000 survey and is a lithic scatter. The survey returned to the area in preparation for a timber harvest in 2017, project 2017.033, identified more lithics, and assigned site number FDP 1228 which has a GPS point.

FDP 1084 TA 7G

When this lithic surface scatter was first discovered in 1996 it was thought to be in 7G but was later believed to be outside of the Fort Drum Military Reservation boundaries. However, when the NAD27 UTM coordinates on the state site form were converted to NAD 83, it was determined that the site is actually on Fort Drum property. The assemblage consisted of 2 pieces of chert debitage recovered from the surface. Further testing is recommended to determine eligibility.

FDP 1192 TA 7G

This site was recovered during a Phase I shovel testing survey of the training area during 2000. The site is located in a sandy blowout along the glacial Lake Iroquois shoreline. The artifact assemblage includes local lithic material. All cultural material was collected from the surface of the blowout. Subsurface investigation was performed during the 2001 Cultural Resources Survey as a Phase II investigation. It was determined that the immediate area was highly disturbed through military maneuvers. During this investigation a possible WWI trench was uncovered within the unit, and it was designated FDH 1261. Additional survey of the area in 2000 uncovered stratified artifacts only 60 meters from FDP 1192. Shovel testing in this area indicated that outside of the trench, sub-surface soil layers are intact.

FDP 1284 TA 7G

This site was found during Phase I survey for a timber harvest (2013.006). The artifacts from the shovel test and its cruciforms consist of LeRay chert and quartzite flakes and shatter. The site was flagged for avoidance during the timber harvest. Due to a proposed Missile Defense Agency construction project, Phase II test unit evaluation was performed at the site (2014.036) as part of the information gathering process for the MDA Environmental Impact Statement to determine the site's eligibility for the National Register. Two test units were laid in but only one was excavated. This unit yielded a large number of LeRay chert secondary, tertiary, thinning and pressure flakes. Small amounts of chert and quartz microshatter were also recovered. Notable artifacts included a possible utilized flake and a possible broken tool from level 4. Test unit 1 was terminated at the end of level 6 due in part to time constraints but also to the fact the question of eligibility had been answered. Given the amount and nature of the lithics recovered from one small area of the site, FDP 1284 appears to be eligible for the National Register under Criterion D. If the MDA chooses the "Site 7" option for construction, this site may be in danger of negative impacts due to its proximity to the edge of the footprint. If this is the case, a mitigation strategy should be agreed upon in consultation with the Native American Tribes and the SHPO. Fort Drum provided these findings to the Missile Defense Agency for use in their Environmental Impact Statement research as they consider multiple locations across the eastern United States.

FDP 1286 TA 7G

This site was found during Phase I survey for a timber harvest (2013.006). The artifacts from the shovel test and its cruciforms consist of LeRay chert shatter and flakes, two chert scrapers and a possible graver. The site was flagged for avoidance during the timber harvest. Due to a proposed Missile Defense Agency construction project, Phase II test unit evaluation was performed at the site (2014.037) as part of the information gathering process for the MDA Environmental Impact Statement to determine the site's eligibility for the National Register. Six test units were excavated. Although much of the chert recovered from this site lacked apparent cultural modification, the test units did yield a combined total of six primary flakes, fourteen secondary flakes, fourteen tertiary flakes and three possible tools. Although one of the tools came from

glacial soils, the other two were from higher up in the units and were likely not the result of secondary deposition. The additional testing completed during the course of this project clearly indicates that FDP 1286 has the potential to yield additional information and would be eligible for the National Register under Criterion D. Should the Missile Defense Agency select the acreage where this site is located for development, the site would be completely destroyed. As a result, the Fort Drum Cultural Resources Program recommends this site be included in any overall cultural resources mitigation plan associated with the proposed Missile Defense project should it come to Fort Drum. Fort Drum provided these findings to Missile Defense Command for use in their Environmental Impact Statement research as they consider multiple locations across the eastern United States.

FDP 1288 TA 7G

This site was found during Phase I testing for a proposed Missile Defense Agency construction project (2014.008). The original shovel test and its cruciforms had yielded 2 chert tertiary flakes. A total of 7 test units were dug as more flakes were discovered (2014.020). These units collectively yielded 47 chert secondary, tertiary and thinning flakes and one chert tool which may be a drill or the base of a Rossville projectile point. Although the site did not produce a high density of lithic materials but what was recovered was very clearly cultural. It is also unusual to find artifacts so close to the surface in this area. Based on the artifact distribution, another set of units to the west of units 10 and 12 would be helpful in determining whether or not this site is eligible for the National Register under Criterion D. If the MDA chooses the "Site 7" option for construction, and the site does prove to be eligible, a mitigation strategy should be agreed upon in consultation with the Native American Nations and the SHPO.

FDP 1300 TA 7G

Identified during Phase I survey for a timber harvest, this site is located in a relatively low-lying area adjacent to a swamp. The soils are shallow and poorly drained. The artifact assemblage consisted of two quartzite primary flakes, one quite large; a quartzite secondary flake; an unidentified lithic flake and four large pieces of quartzite shatter. The area was flagged for avoidance during the harvest and should be evaluated.

TA 7 Historic Sites

FDH 1432, Woodside Airfield, TAs 7C and 7F

In 1930, brothers Lyle and Oakley Woodside initially began to study aviation via correspondence, and subsequently they learned to fly. They purchased a Waco bi-plane with a Curtis 0-X-5 motor and began construction work on their airfield with a goal of operating a flying school, aerial photography, aerial advertising, and passenger service. Unfortunately, they crashed their plane in 1932, but they continued to run the airfield. In addition to civilian planes,

Woodside Airfield, accommodated military aircraft, and on June 23, 1935 even hosted an Air Circus with 2000 people attending. The airfield was part of the taking in 1941, closing it for civilian use. The original runway is now the site of a smaller helicopter landing zone.

FDH 1304, 1305, and 1306, MSPs TA 7C

These three sites are maple syrup production sites located within 50 meters of each other in TA 7C. FDH 1304 consists of a pile of bricks and some roughly formed limestone blocks. FDH 1305 is a small trough-style MSP and is the best preserved of the three. FDH 1306 is very similar in size and style to FDH 1305. Materials recovered included carbonized nails, iron wire, flat pieces of metal, red brick, fire brick, mortar, charcoal and burned sandstone.

FDH 1316 TA 7C

The site was discovered during a Phase I survey for a proposed timber harvest. The site is located west of Alexandria Road and east of the Warren Swamp. The assemblage consists of plain whiteware sherds, lead-glazed redware and hand-painted whiteware with a floral motif. Also found was some Onondaga chert shatter and 1 piece of possible jasper. The historic artifacts could indicate a date older than generally found at historic sites on Fort Drum. A search of historic maps may substantiate the theory that this site is older than most on Fort Drum. The site is shown as "G.W. Smith" in the 1855 historic map locations digitized into the GIS coverage. It appears as "W.W. Owen" in the 1864 Beers *Atlas of Jefferson County*. It does not appear again on any more recent maps, including the 1888 Robinson *Atlas of Jefferson County*. The area that was posted for avoidance should be evaluated by means of Phase II test units when time allows. FDH 1316 may be significant if it proves to be older that most of the historic farmsteads on Fort Drum. The prehistoric lithic materials were not assigned a site number because they do not meet Fort Drum's criteria to be considered a lithic scatter. However, further investigations of FDH 1316 may also yield additional prehistoric materials.

FDH 1313, World War II Bunker, TA 7D

There are several World War II bunkers remaining in the Fort Drum landscape, and this one in TA 7D offers an excellent example. The site is located in a sandy area adjacent to Warren Swamp, a part of the West Branch of Black Creek and off the south side of the South Tank Trail. The area consisted mainly of wooded areas with a ravine and a few low-lying swamps. It is unclear whether these structures resulted from training on how to build bunkers or whether they were constructed as training scenario assets. They tend to face each other across a substantial distance, which made sense prior to reforestation of the areas where they are located. This bunker faces FDH 1344. Another bunker, FDH 1307 in Training Area 7C, does not have a current pairing, but a LiDAR anomaly to its north may be another bunker. It had not yet been investigated.

FDH 1318, Gates/Austin/Thayer Farm and Sawmill TA 7D

The site was discovered during a Phase I survey for a proposed timber harvest. FDH 1318 is a historic farmstead that does not appear in the Louis Berger & Associates coverage. The site was identified as the F.H Gates farmstead in the 1864 Beers *Atlas of Jefferson County* and is shown as the C. Austin farmstead on the 1888 Robinson *Atlas of Jefferson County*. Both maps show a second structure labeled "S. Mill" on a creek to the northeast with the structures joined to show single ownership. However, remains of the mill could not be located. On the 1908 *Maneuver Ground Map* the site appears at the end of a road running north from Rte. 3 and is labeled "Thayer". It also appears as an unnamed building on the 1911 USGS Antwerp, NY Quad.

TA8

The heart of Fort Drum's Training Areas, TA 8, offers a mixture of former farmlands that are now reforested drained by creeks and wetlands.

FDP 1009 (A045-21-00110) TA 8A

No information concerning pertinent fieldwork and associated documents was available for this site, with the exception of the site location. All documentation and associated artifacts are missing from the Artifact Curation Facility (ACF). The site lies in a highly disturbed area; the proximity of the range to this site (located in the northwest corner of the training area) increases the possibility of contact between personnel and high explosives and therefore is considered dangerous. No further investigation is recommended.

FDP 1010 (A045-21-0111) TA 8A

Discovered during a routine Cultural Resources survey of the training area in 1993 this site is located on a bluff overlooking Black Creek approximately 80 meters south of Doolin's Crossing. The artifact assemblage consisted of one flake recovered from the surface, and its lithic source material remains unknown. No additional investigation was performed. Due to the proximity of this location to active military ranges this site is considered highly disturbed and highly dangerous to approach for further evaluation. The flake associated with this site is lost from the collection so further analysis is not an option. No further investigation is recommended.

FDP 1038 TA 8A

Located approximately 30 meters west of Alexandria Road, which forms the eastern boundary of the training area, this site lies along a tributary of Black Creek. Originally identified in 1995, the area was tested with a Phase I shovel testing survey in 2000. The artifact assemblage from 1995

consisted of 3 LeRay chert cores and multiple LeRay chert flakes, all recovered from the surface. Phase I shovel tests in 2000 uncovered additional debitage. Cruciforms at one-meter intervals for these shovel tests were negative for cultural material. This site is included in the program's off limits coverage and is recommended for further testing. Relic waterways present within this training area are considered highly sensitive for prehistoric material. Prior to any cultural resources personnel activity a sweep for ordnance should be performed by EOD.

FDP 1039 TA 8A

This site is located directly south of FDP 1038 along the tributary to Black Creek, and was also recovered via surface collection during the 1995 Cultural Resources Survey. Phase I survey of the area was completed during the 2000 field season. The artifacts are similar to those collected at FDP 1038 and include 5 flakes; no diagnostic material was collected. The 2000 survey failed to yield additional material as mentioned above. The highly sensitive nature of the location requires the recommendation of further fieldwork to better understand the site and its relationship to FDP 1038. Prior to any cultural resources personnel activity a sweep for ordnance should be performed by EOD.

FDP 1124 TA 8A

FDP 1124 was a charcoal layer in a shovel test. Its cruciforms were negative but showed intact stratigraphy. The find was flagged and avoided during a subsequent timber harvest, but the site deserves further consideration.

FDP 1066 (NYSA 045-21-0141) TA 8B

This site is a small prehistoric encampment located on a gently sloping, un-vegetated and eroding hogback dune. The site was discovered during an unscheduled visit during the 1995 field season. Surface collection produced 2 pieces of Black River chert debitage and one possible tool of an unknown chert type. No diagnostic artifacts were recovered and the surface and subsurface integrity of the site has been compromised due to extensive military training activities and erosion. This site is not eligible for the NRHP.

FDP 1105 TA 8B

Located in the southern section of training area 8B, this site lies 40 meters west of Alexandria Road in a sandy open area. Initial recovery of the site consists of one flake found on the surface, and no diagnostic material was recovered. Cruciforms were completed and no additional cultural material was recovered. This site does lie in the glacial Lake Iroquois Shoreline and is considered highly sensitive thus making it area for consideration for further testing.

FDP 1106 TA 8B

Located in the southwestern boundary of the training area, FDP 1106 is comprised of 3 fragments of debitage recovered from the surface of a sand blowout. No diagnostic material was recovered. Its location along the glacial Lake Iroquois shoreline places this training area in a prehistorically sensitive location and lack of subsurface investigation of this site leaves the open possibility of intact stratigraphy and buried archeological sites. Further investigation is recommended.

FDP 1107 TA 8B

Located in training area 8B, this site was first recovered in 1998 during a routine shovel testing survey. FDP 1107 is located directly south of the South tank trail on a sandy blowout area. The artifact assemblage consists of a projectile point tip (non-diagnostic), multiple primary flakes, and one fragment of shatter. All artifacts were recovered from the surface, and all are composed of Onondaga chert. One subsurface shovel test was performed in the area with inconclusive results the integrity of the subsurface is unknown. This site has the potential to be listed on the NRHP. Further evaluation is recommended.

FDP 1108 TA 8B

Located 20 meters north of the south tank trail, this site has yielded prehistoric material dating to the early-middle woodland Point Peninsula culture. In addition a Snyder projectile point of Nellie chert, originating in southeastern Ohio, was recovered from this site. Initial discovery in 1997 recognized this site as a potential NRHP. Additional excavation in 2000 confirmed intact subsurface integrity. At that point it was decided to protect the site with Off Limits signage and an aggressive program of hydro-seeding and beach grass for re-vegetation of the eroding sands. These methods were sufficiently successful to reopen the site for pedestrian use. In 2005 the signs reading "Off Limits by Order of the Commander" were replaced with signs reading "Historic Area, Training Permitted, No Digging". In 2010, 2 piles of small stones or possibly fire-cracked rock were noted eroding out of one on the hills in the site. Further measures to stop the erosion were undertaken, and the site remains in good condition.

FDP 1109 TA 8B

This site is located approximately 200 meters east of the South Tank Trail and is at the junction of several other unnamed tank trails. This site also lies on the glacial Lake Iroquois shoreline, therefore the area is considered highly sensitive for prehistoric material. The site assemblage consists of multiple LeRay chert flakes recovered from surface reconnaissance. A single judgmental shovel test was performed adjacent to the highest concentration of chert on the surface; this test was negative for cultural material. Due to the sensitive nature of the landform,

the intact subsurface, and the recovery of lithic material further evaluation of this site is recommended.

FDP 1110 TA 8B

This site was discovered during a Phase I investigation of the training area. Initial investigation yielded several flakes and shatter of Onondaga chert, some of which were heat-treated, from the surface. It is located east of the railroad tracks approximately 20 meters and 600 meters south of the south tank trail. One shovel test was performed to test the integrity of the subsurface. Two signs are placed on the slope where the cultural material was collected indicating buried cable. Located on the opposite side of the railroad tracks is an additional site FDP 1173 discovered during the 2000 survey, (see training area 5E). Phase II evaluation conducted in 2001 under Project Number 2001.061 concluded that the site could be considered as a possible component of FDP 1173 and was separated from it by construction of the railroad. The immediate proximity to the railroad protects any remaining portions of site material from further disturbance. It needs no further evaluation and does not warrant potential eligibility as a separate site.

FDPs 1111, 1112, 1114, 1115, and 1119 TA 8B

These sites are all surface finds located in exposed sand deposits associated with the glacial lake shoreline and tributary deposits found in TA 8B. FDP 1111 included multiple fragments of debitage, FDP 1112 was an edge-modified flake, FDP 1114 had two flakes one of which was Flint Ridge chert, FDP 1115 was an isolated find of a projectile point made of Normanskill chert, and FDP 1119 yielded a ground stone hand axe. Granted, these finds were given site numbers when the threshold for documenting a find as a site was lower, but these landforms and finds definitely require further evaluation and stabilization where erosion is occurring.

FDPs 1116, 1117, and 1120 TA 8B

These sites are also associated with the sandy landforms of TA 8B. FDP 1116 was identified by the presence of three core fragments and five pieces of lithic debitage in a shovel test probe on a small peninsula above a marsh, and FDP 1117 was identified by the presence of a single lithic flake in a shovel test. FDP 1120 yielded a single piece of debitage in a shovel test. Cruciforms for all three finds were negative. Subsequent Phase II investigations at FDP1116 additional lithics, prehistoric ceramic fragments and burnt bone. The site is posted Off Limits and is potentially eligible for the NRHP. Further testing is recommended.

FDP 1170 TA 8B

This site was discovered during a routine survey of the training area during the 2000 field season. The site lies in between the Alexandria Road and the West Branch of the Black Creek in

the northern section of the training area. This portion of the training area is considered highly sensitive for prehistoric material as it contains an abundance of relic waterways and lies on the glacial Lake Iroquois shoreline. Initial discovery was made through a surface reconnaissance of a sandy blowout area. The artifact assemblage for this site is extensive and includes several biface fragments, drill fragments, projectile point fragments (both bases and tips) and scrapers. Lithic materials include Onondaga chert among other exotic lithic material, most probably Flint Ridge chert from Ohio. A majority of diagnostic materials recovered are from the late Archaic period and similar to tools from Lamoka Lake an early site located in the Finger Lakes. C-14 dates at the site include 3450 BP, 1720 BP and 570 BP indicating that the area was inhabited over a period of thousands of years. A significant portion of the artifacts were recovered from within 5 centimeters of the surface. Phase II investigations yielded additional information with probable post molds and hearth features. There is no question that the site is potentially eligible for the National Register. Protection measures include geo-textiles that have enabled vegetation to stabilize the site along with pedestrian use only signage.

FDP 1175 TA 8B

Identified during a routine Cultural Resources survey, this site lies in the north section of 8B approximately 600 meters northwest of FDP 1170. The site lies in an open sandy area; fire-cracked rock is visible over the entire surface, and several larger boulders with additional oxidized segments are visible. Initially identified through the discovery of a French Gunflint from the surface, it was decided to limit sub-surface investigation of this site to a minimum until detailed documentation of the surface features could be completed and analyzed. Given the extensive evidence of fire, the site could be a location for resource processing. The one unit excavated yielded very little information. This site is listed Off Limits to military personnel until further investigation can conclude its significance. Further testing is recommended before a determination of whether this site is eligible for the NRHP.

FDP 1176 TA 8B

Routine survey of the training area yielded stratified cultural material within a shovel test. The site lies along the Alexandria Road and a tributary of the Black Creek in the eastern side of the training area. One unit was placed over the stratified shovel test to determine the extent of the cultural information. Two additional fragments of chert were recovered no features were identified. No further investigation of this site is recommended, it is not eligible for the NRHP.

FDP 1222 TA 8B

The site was identified during a Phase I survey for a proposed timber harvest. The site is located in a sand blowout adjacent to the West Branch of Black Creek. The site is an isolated surface find consisting of a partial Onondaga chert projectile point. The nature of the fracture makes identification difficult but it may be a Saugeen point. Shovel test profiles of the vicinity indicate

that the area is disturbed. The site is considered ineligible for listing on the National Register due to lack of site integrity.

FDP 1264, TA 8B

FDP 1264 was identified during the 2008 Phase I survey of a portion of Training Area 8B (2008.036). The site was evidenced by a possible Brewerton eared projectile point recovered from the surface between shovel tests 3 and 4 on transect 12 of baseline 34. This location was GPSed at the time of survey. Although, by their nature, surface finds lack vertical provenience, Cultural Resources will continue to assign site numbers to diagnostic artifacts in order to better track them in the program's database.

FDP 1268 TA 8B

Found during survey for a timber harvest, the site sits on a 620' contour above the West Branch of Black Creek. The artifact assemblage consists of 1 piece of quartz shatter, 1 piece of LeRay chert shatter with flake scars, an Onondaga chert secondary flake and 2 Onondaga chert tertiary flakes. The site was determined to be eligible for the National Register and was flagged for avoidance during the timber harvest and the boundary was GPSed for future reference.

FDP 1062 (NYSA 045-21-0138) TA 8C

This site is a small prehistoric encampment located on a flat, sparsely vegetated hogback dune. The site was identified during the 1995 field season during a surface collection grid which produced 5 pieces of quartz debitage and 1 piece of Black River chert debitage. The site was then shovel tested to identify the subsurface integrity of the site. Shovel testing failed to yield additional prehistoric cultural materials. No diagnostic artifacts were recovered, and the surface and subsurface integrity of the site has been compromised due to military training activities and erosion. Based on these results the site is not eligible for the NRHP.

FDP 1063 (NYSA 045-21-0139) TA 8C

This site is a small prehistoric encampment located on a flat, sparsely vegetated hogback dune and extends north into a wooded low lying area. The site was evidenced by a single piece of Black River chert debitage and a possible sandstone platform for a fire starter. The site was surface collected using a 10-meter grid and shovel tested at 10 meter intervals to identify the subsurface integrity of the site. No diagnostic artifacts were recovered and the surface and subsurface integrity of the site has been compromised due to military training activities and erosion. Based on these results FDP 1063 has been determined to not be NR eligible.

FDP 1067 TA 8C

This site lies 20 meters northwest of Lake School Road and approximately 120 meters northeast of the Black Creek. Initial discovery of the site occurred during routine shovel testing investigation of the training area. The first artifacts were recovered from two positive shovel tests at 10-meter intervals. Artifacts recovered were one Onondaga flake and 2 white quartz debitage from 0-30 centimeters below surface. Cruciforms at 5 and 10 meters intervals were negative. The subsurface integrity of the site is intact in conjunction with its proximity to the Black Creek. The site vicinity was revisited for survey prior to upgrading a range trail in 2011, but the immediate site area was not affected. Further investigation of this site is warranted.

FDPs 1068 and 1069 TA 8C

These sites are isolated finds located in TA 8C in 1996. The area where they were located was surveyed for a cross country maneuver corridor in 2015, and there was no evidence found at that time that these finds were indicative of more significant cultural remains. Neither site is considered to be eligible for the NRHP.

FDP 1070 TA 8C

First discovered during routine surface reconnaissance of the training area in 1996, subsequent preliminary Phase II evaluations demonstrate its potential for the NRHP. The artifact assemblage contains prehistoric ceramic recovered from surface reconnaissance. The diagnostic ceramic materials demonstrate two definitive cultural contexts, St. Lawrence Iroquoian and the Point Peninsula cultural context. These indications lead to a possible stratified multi-component site. Preliminary Phase II evaluations were performed in 1999 resulting the following recommendation; southwest datums of the units need GPS coordinates, excavations need to be completed, and a comprehensive site map prepared. In addition, controlled excavation of trench or long linear units needs to be initiated and completed in order to provide a precise delineation of the site perimeter. Linear units would be able to confirm or deny the presence of a palisade as well and would intersect post mold perimeters for possible dwellings on the site. Areas of eroding features in the sands should be investigated using large flat shoveled units similar to the ones that were successfully used to investigate FDP 1093. After initial discovery the site was considered potential for the NRHP and was placed "Off Limits by Order of the Commander" and clearly posted.

FDP 1071 TA 8C

Discovered in 1996, this site is an isolated find of a projectile point.

FDP 1072 TA 8C

This site is located approximately 350 meters south of FDP 1070 and lies at 660 feet AMSL which is consistent with the beach line elevation for the glacial lake. Artifacts recovered from this site were discovered in a stratified context from a shovel test at levels 1 and 2. The shovel tests yielded 3 Onondaga pressure flakes from both levels. No documentation exists for possible cruciform; therefore recommendations include re-establishing the site location and placing cruciforms at 1-meter intervals to determine subsurface integrity and site boundary. Further evaluation is recommended prior to consideration for the NRHP.

FDP 1073 TA 8C

Located approximately 100 meters to the east of FDP 1070 this site lies only 200 meters from Buck Creek. All evidence consists of surface recovery; no subsurface investigation has been completed. Artifacts include utilized LeRay chert flake, LeRay chert debitage, and faunal material. Recommendations include examining subsurface for cultural horizons. Protection and further evaluation is recommended prior to consideration for the NRHP.

FDP 1064 (NYSA 045-21-0140) TA 8C

FDP 1064 is a small prehistoric encampment located on an open hogback dune situated on the edge of a ravine that overlooks the tributary of the Black Creek. The site was identified when surface collection produced 63 pieces of quartz debitage, 5 pieces of Black River chert debitage and 1 piece of edge modified quartz debitage. Further review of the artifacts from this site in 2011, Project 2011.038, prior to a timber harvest in the area led to a determination that this site requires further evaluation. It was set aside and protected during the harvest activity. Further evaluation was completed in 2012, and the site determined to be not eligible.

Historic Sites

FDH 1310, MSP, TA 8B

FDH 1310 is a small or trough maple syrup production site (MSP) and was located during a phase I survey for a projected 2005 timber harvest. It is located on a south-facing slope on the southeastern side of a low knoll within an area of dissected uplands east of the West Branch of Black Creek. The site is a typical small MSP site on the Fort Drum Military Reservation except for an unusual brick flue extension.

FDH 1253, French Gunflint, TA 8B

FDH 1253 was identified as a surface find in a sand blowout immediately surrounded by woods. The site is north of a water filled ravine that is part of the West Branch and Black Creek drainage systems and flows into Warren Swamp. The single artifact recovered is a blond French gunflint. Further testing found the presence of chert in the blowout as well. The site is filled with fire

cracked rock features, and testing was limited due to concern about disturbing them. Profiles in the test units that were completed demonstrated a lack of stratigraphy indicating that the blowout is the remains of an active sand dune. Further testing is recommended in the adjacent tree line where the land surface has been stabilized. Currently, this site is considered to contribute to the Contact Period Cultural Context.

FDH 1272, Conservation Pond, TA 8C

Conservation Pond, also known as the Soil Conservation Bureau Recreation Area (FDH 1272) or Buck Creek Park, is a collection of concrete shelter slab foundations associated with a small pond impounded behind a concrete dam on Buck Creek, a tributary to Black Creek. In 2017, Carol Rose Reed donated a scrap book that contained newspaper clippings concerning the opening of the park, an event attended by over 5000 people. When it opened on July 2, 1935, the Park had over 30 picnic tables and pavilions with a dance floor and piano. The clippings included images which will enable accurate reconstruction of picnic pavilions should Fort Drum choose to redevelop the area further. The Conservation program has re-opened the parking area and created a nature trail around the pond.

TA9

TA9 may be a glacial lake delta land form that may have preceded the Pine Plains delta. It consists of sandy soils drained by Indian River tributaries.

FDP 1303 TA 9A

FDP 1303is a small lithic scatter. It consists of 4 LeRay chert tertiary flakes, 3 quartzite tertiary flakes, 1 quartzite shatter, and 1 unidentified lithic shatter. It requires further evaluation.

TA 10

TA 10 consists of reforested farm land.

Prehistoric Sites

FDP 1293 TA 10B

Identified during reconnaissance for a timber harvest, this site consists of a slab of rock stacked on two other upright rocks. Moss growth indicates that this feature is not recent. The nature of the feature is unknown. It was flagged off limits during the timber harvest.

TA 11

Training Area 11 is characterized by reforested farms and shrub lands.

FDP 1061 TA 11B

Site FDP 1061 is located in the eastern part of the training area just off Birch Road and beside Beaver Meadow Creek, a tributary of Black Creek. Identified during Phase I survey of the training area, the site consisted of one LeRay chert flake from level one of a shovel test. Cruciforms performed at ten-meter intervals did not yield further cultural material. It should be noted, that Fort Drum no longer begins cruciform at 10 meters, but rather begins them now at 1 meter. No Phase II was performed. Due to its proximity to a sizable waterway and inadequate testing, further evaluation is recommended prior to consideration for the NRHP.

FDP 1065 TA 11B

Also located in the eastern part of the training area, the site lies approximately 380 meters northwest of Beaver Meadow Creek. Located during Phase I testing of the training area, the site consisted of one quartz flake. No Phase II was performed but eight cruciform shovel tests at five and ten-meter intervals failed to yield additional cultural material. No further evaluation is recommended at this site. The area was revisited in preparation for timber harvest Project 2015.018, and the site was not relocated at that time, although other areas for avoidance were identified. The site is not eligible.

FDP 1290 TA 11B

This site was found during Phase I survey for a timber harvest. The artifact assemblage consisted of several LeRay chert tertiary flakes and shatter and a possible piece of Onondaga chert shatter. The shovel test and its cruciforms were flagged for avoidance during the timber harvest. Training Area 11B is in the Lake Plain physiographic region, and is usually considered to be of low archaeological sensitivity for prehistoric sites, a fact that makes the presence of this site more interesting. Phase II testing should be performed to determine NR eligibility if the area is ever developed.

TA 12

TA 12 consists of grasslands in the glacial lake plain. Much of the training area features thin soils over bedrock which have been substantially disturbed by military vehicle training. Archaeological survey in this portion of Fort Drum has used random sampling in plots with very few finds.

FDP 1056 TA 12A

The site is located in the eastern central part of the training area on a low plain north of an unnamed tributary of Black Creek. Located during Phase I testing of the training area, the site consisted of one piece of LeRay chert shatter from level one of a shovel test. Cruciforms at five and ten meter intervals failed to yield further cultural material and no Phase II was performed. No further evaluation is recommended at this site.

FDP 1292 TA 12D

This site consists of a number of stone piles scattered on a bluff. They were brought to the attention of the Program in 2012 by a Soldier who had found them while hunting. Since then, several more piles have been discovered. A staff-to-staff Native American consultation visit resulted in the decision not to post the site as its location offers passive protection. It does appear in the restricted site coverage and as an historic landscape of ethnographic origin in the IGI&S database. The nature of the piles is unknown.

TA13

TA 13 is similar to portions of TA 12 in terms of thin soils over bedrock and extensive disturbance.

Prehistoric Sites

FDP 1045 TA 13A

This site is located in the southeastern part of the training area above a swamp at approximately 600 feet of elevation which is a known glacial lake shoreline elevation. The site was located during Phase I testing for a timber cutting unit. The artifact assemblage consists of LeRay chert and quartz debitage and possible jasper from the surface and one LeRay chert flake from level two of a shovel test. However, the site map indicates the possibility of additional positive shovel tests for which no artifacts or documentation are present. For this reason and since no cruciforms were performed, further testing is recommended at this site prior to consideration for the NRHP.

Historic Sites

FDH 316A, Beaman Farm, TA 13A

FDH 316A known as the David Beaman Farmstead was the subject of Phase I survey, Phase II evaluations, and Phase III data recovery by Louis Berger & Associates between 1989 and 1992. By virtue of this fact, the site is considered mitigated. In addition, when ITAM cleared the area

of the site and it was re-exposed, the deep cellar holes were determined to be a training hazard and ITAM requested to harden the site using geo-fabric and gravel. This treatment will protect the site and ensure preservation while military training takes place in the immediate vicinity. The site still features concrete silo foundations along with relatively intact barn and cheese factory concrete floors and troughs. In the early spring and late fall, this site is an excellent choice for an outreach farmstead site visit.

FDH 1309, J.H. White Farmstead, TA13A

Located just off the US Military Highway, the presence of feral lilies, lilac, and a relic maple tree indicated the existence of a historic site. No foundation was present. These site indicators are very useful when training Soldiers on how to "read" a cross cultural landscape.

TA 14

Prehistoric Sites

FDP 1172 TA 14C

First located during a Phase I REC survey, the site lies in a sandy blowout just east of Russell Turnpike. The site was first identified by the presence of a large, broken Vanport (Flint Ridge) core, a surface bone scatter and two areas of fire-cracked rock. The bone scatter was found to be present below the sand as well. Surface bones were removed for faunal analysis and are believed to belong to more than one animal. None of the bone was positively identified as human. Pedestrian survey has recovered additional debitage as well as historic cultural material. No subsurface testing has been performed, and further testing is recommended in order to evaluate the site prior to consideration for NRHP. The site is protected, is in good condition with the posting updated as of 2020.

FDP 1189 TA 14C

First located during a Phase I survey of the area for a timber harvest, the site was located in a sandy blowout in the southern part of the training area. Surface evidence included a scatter of fire-cracked rock and a scatter of unidentified red lithic material later determined to be either a crude jasper material from Ontario or Vermont or argillite from southeast Pennsylvania. Two Phase II test units were excavated. A 2x2 meter unit was placed in the location of the fire-cracked rock. Two unidentified lithics were recovered but determined not to have been culturally modified. A 1x1 meter unit was placed in the location of the red lithic scatter. A small amount of debitage was recovered from the first level. No features were recorded in either unit. Based on the lack of regular stratigraphy and cultural features in the test units, it is believed that the site is either eroded or deflated. However, trenching may be helpful in determining the

presence of the deeper cultural deposits, and the site should be revisited periodically to see if erosion reveals additional artifacts.

FDP 1190 TA 14C

First located during a Phase I survey of the area for a timber harvest, the site consisted of several pieces of material preliminarily identified as red jasper from a shovel test. A single 1-meter square test unit was excavated. Although some lithics that might be jasper were recovered, there were no subsurface features to indicate that this site is more than an isolated find. The test excavation found the site to be insignificant, and the Holland Lithic Laboratory identified the original lithic material as a naturally occurring red chert. This report was submitted to SHPO and a concurrence received under project 02PR04005. No further testing is recommended and the site is not eligible for NRHP.

FDP 1182 TA 14C

First located during a Phase I REC survey, the site lies in a sandy blowout on what may be a fossil beach ridge of a glacial inland sea. The artifact assemblage from this site includes a projectile point tip of Onondaga chert displaying the distal end of a channel flake scar and an Onondaga chert blade. A large quantity of historic cultural material was also present. In 2010, during a site revisit, a scraper constructed of an exotic cream colored chert, possibly Flint Hills, was recovered from the surface. The area has been highly disturbed by military activities and the presence of potentially paleo artifacts on the surface indicate the possible presence of deeply buried paleo deposits in situ. Trenching may be helpful in determining the extent of the disturbance to assist in evaluation, and the exotic scraper should be subjected to further analysis.

FDP 1157 TA 14E

First located during a reconnaissance survey, the site lies on a fossil beach of Glacial Lake Iroquois in a sandy blowout in the central section of the training area. The artifact assemblage consists of a Vanport (Flint Ridge) chalcedony flake and an Onondaga chert tertiary flake both recovered from the surface of the blowout. Historic cultural material is also present on the surface. No formal pedestrian survey or subsurface testing was performed. The area is posted Off Limits, and further testing in order to define the site and its boundaries is recommended prior to consideration for NRHP.

FDP 1188 TA 14E

Identified during a Phase I survey to locate a possible blacksmith shop, the site lies in the northern corner of the training area just north of Black Creek. The artifact assemblage consists of a single Onondaga flake and possible fire-cracked rock from a shovel test. Although one-

meter cruciform shovel tests did not yield any further cultural material, the location of the site on a bluff overlooking a riparian swamp argues for further testing.

FDP 1035 TA 14G

Located during reconnaissance for the Range 23 Upgrade project, the site was later determined to be outside the area of the project. The site lies on a bluff overlooking the Indian River. The artifact assemblage consisted of a single LeRay chert flake from a shovel test. Cruciforms at 5-meter intervals failed to produce any further cultural material. However, give the site's location along the river, close interval testing is recommended in order to relocate the site and define its boundaries.

Historic Sites

FDH 227, Hosford Estate, TA 14B

The Hosford Estate was a family farmstead that was developed into a vacation home by Harry William Hosford, who grew up there and became very wealthy in the stock market. The home featured one of the first "in ground" swimming pools in the United States. According to the great granddaughter of Mr. Hosford, the pool had "big engines" that pumped water out of the creek, through the pool and out again. There was also a guest house associated with the pool. Prior to establishment of the Cultural Resources program at Fort Drum, the pool was filled with inert munition debris, compromising the integrity of the site.

FDH 1074 and 1085, Quarry Pond and Limekilns, TA 14B

The Quarry Pond Industrial Site appears to have begun as a limestone quarry and kiln site in the mid-nineteenth century. The quarry would have provided lime necessary for the blast furnace at Lewisburg and possibly Alpina. When the iron industry folded in the 1880s, limestone mining continued at Quarry Pond. FDH 1085 consists of the ruins of a concrete structure and the quarry itself. In 1906, mining activity uncovered a cave containing the largest calcite crystals in the world. The New York State Museum sent a special railroad car to collect these crystals which were exhibited for decades as "The Crystal Cave." In the early 1920s, when the quarry had extended below the water table, the pumps failed flooding the quarry operation which was never re-opened.

FDH 1231/FDH 1232, Historic School Houses, TA 14B

FDH 1231 is one of two historic schoolhouses (along with FDH 1232) relocated and mapped in 2000 as part of the Dispersed Social Center, Rural Industry and Agricultural Processing Survey). FDH 1231 appears on the 1875 *Beers Atlas of Lewis County* and the 1916 *15' USGS Lake*

Bonaparte Quadrangle Map labeled "S. H." and "Kinsman School" respectively and is suggested to have been the later of the two schools. The 2000 Cultural Resources Annual Report concluded that the earlier school (FDH 1232) had been abandoned in favor of a newer school house (FDH 1231) across the road. In 2000, FDH 1231 was recommended for preservation. In 2004, due to the proposed upgrade of Rock Road, the site was posted with OFF LIMITS signage. The site was revisited in 2006 and appeared in good condition.

FDH 1030, Gates Corners Cheese Factory, TA 14D

This cheese factory is the best preserved example on Fort Drum with an intact foundation, well, and corresponding artifacts still present on the site. There are even relic landscape elements including shade trees surrounding the site. First noted as a cheese factory in the 1865 survey of Jefferson County, it may have continued in its original capacity through the 20th century. The site is designated for protection and posted.

FDH1179, FDH1180 and FDH1401, Figert Road Sawmill, TA 14E

This complex of foundations is associated with a sawmill that dates back to the Shield's Map of Jefferson County in 1855. Most of the 19th century sawmills on Fort Drum were probably of the sash-type. They were a water-powered vertical saw with a single straight blade and a wooded log carriage "sash" set in a heavy wooden frame.

FDH 1294, MSP, TA 14E

FDH 1294 is a maple syrup production site (MSP). The site includes a ramp for delivering sap to the boiler, a concrete boiling house floor, an evaporator foundation, and an evaporator pan including portions of its frame. The site is largely intact and undisturbed. Recommendations for protection will be made within the context of the completed list of evaluated MSPs on Fort Drum.

FDH1159 TA 14F

FDH 1159 is a maple syrup production site (MSP). The site is largely intact and undisturbed. Recommendations for protection will be made within the context of the completed list of evaluated MSPs on Fort Drum.

FDH 1160 TA 14F

FDH 1160 is a maple syrup production site (MSP). The site includes an exposed ramp and an evaporator. The ramp appears to have been built into a pre-existing knoll. The artifacts were

architectural in nature rather than directly associated with sugaring. The site is largely intact and undisturbed. Recommendations for protection will be made within the context of the completed list of evaluated MSPs on Fort Drum. An MOA will be prepared when evaluations are complete and most appropriate sites are selected to represent the sugaring context on Fort Drum. It is also important to note that an exhaustive study of sugaring sites on Fort Drum was completed by David Babson, for his PhD at Syracuse University, 2010.

FDH 1256, MSP, TA 14F

FDH 1256 is a maple syrup production site (MSP). The site includes an exposed stone and concrete pier, a boiling house structure, and a coal pile. Artifacts related to sugaring were distributed across the site including remains of glass containers, spiles, bucket hangers, an auger bit, and bucket hoops. The site is largely intact and undisturbed. Recommendations for protection will be made within the context of the completed list of evaluated MSPs on Fort Drum.

FDH 1286, MSP, TA 14G

Sugaring has been and continues to be a very important part of agriculture in northern New York. Foundation remains for maple processing at FDH include a ramp where horses could pull a wagon filled with sap, up a ramp, where the sap buckets could be dumped into a boiling trough adjacent and below.

FDH 1392, Bunker, TA 14G

This site consists of a free-standing concrete bunker approximately 12m long and 2.4m high and open on both ends located on Range 19. It has a row of brick-sized windows at eye level in the northeast wall, facing down range. Most of them have been filled in with concrete. The interior has a large amount of graffiti dating from 1941 to 1991. FDH1392 represents a WWII-era training bunker that was still in use until relatively recently. Its construction is different from other bunkers that have been documented on the installation in that it is not built into a hillside. It is also considerably smaller than other examples. It is eligible for the National Register under Criterion D.

TAs 17 and 18

This northwest portion of Fort Drum provides a transition from the Lake Plain to the Adirondack lowlands. TA 17 includes land forms that were islands in the Glacial Lake.

FDP 1083 TA 17A

The site is located along a small Indian River tributary. One small example of LeRay chert shatter was recovered in a shovel test pit. Cruciforms (radials) produced no cultural materials. There was a plan to attempt to relocate this site in 2008, but at this point, further investigation is a low priority.

FDP 1281 TA 17A

The site was originally identified as part of the Dispersed Social Center, Rural Industry and Agricultural Processing Sites project in 2000 (2000.166). During the site visit to what was thought to be Schoolhouse No. 12, a quartzite Levanna projectile point was recovered from the surface. Since no shovel testing was done at the time of the site visit, the decision was made to lay in a close-interval grid to test for the possibility of a prehistoric occupation (2012.032). Both historic and prehistoric materials were recovered, usually within the same shovel tests. While there may be a prehistoric context in the survey area, it appears to be highly disturbed. Test units based on the shovel test data might yield additional artifacts but are unlikely to contribute any other information. As such, the site is not National Register eligible under Criterion D. In order to allow for tracking in the site database, the possible prehistoric artifacts recovered in 2012 and the Levanna point were assigned site number FDP 1281, and the location of the point discovery was reconfirmed in 2019 under Project 2019.021.

FDP 1149 TA 17C

This site was originally identified in 1999 (1999.50) during a Phase I survey designed to test the prehistoric sensitivity model at the 600' contour level. It was assigned a site number and the project number 1999.86. A Phase II test unit excavation was performed under project number 1999.73. The artifact assemblage consisted of a small amount of quartz debitage and flakes. Positive identification of the artifacts was not made until 2004 during a consulting visit by Jim Cassidy, a paleo lithic expert from California. He identified a segment of a utilized prismatic quartz macroblade indicative of paleo-Indian occupation within the artifact assemblage (Cassidy, 2004). The hill on which this site is located would have been an island in Glacial Lake Iroquois during the late Pleistocene and early Holocene epochs. Additional Phase I testing was conducted in 2005 to attempt to relocate the concentration of prehistoric materials. Results were inconclusive.

FDP 1262, TA 17C

This site was a lithic scatter that was mitigated and removed via data recovery during testing.

FDP 1152 TA 17D

The site produced possible cultural quartz flakes in a surface context. Further investigation indicates that this site may be a fossil island paleo site with a maritme context. Artifacts include reamers and a pestle with ochre staining. The site is eligible for listing on the NRHP under criterion D and is similar to FDP 1208. The site has been posted with signs that read "Historic Site, Training Permitted, No Digging." In 2008 further evaluation of the site discovered a stone lined hearth. C-14 dating indicates a Point Peninsula affiliation dating to 810+/-40 BP.

Historic Sites

FDH 1341, World War II Aerial Gunnery Training Asset, TA 17A

This feature is a target track possibly in use from WWII till the early 1980's. It had post in the center that anchored a wheeled target as it drove around the track. The target was fired on from a remote location. There were similar tracks at Fort Huachuca, Tyndall Field Gunnery School, Florida; Brooksville Turret Gunnery Range, Florida and Buckingham Airfield at Fort Myers, Florida. Two mentions were also found in issues of Popular Mechanics from January, 1943 and April, 1944. The tracks were used to train aerial gunners during WWII, although the locations of the gunners in relation to the target seem to vary. Berms were used to protect the target mover (jeep).

TA 18

FDP 1118 TA 18A

Originally located during the judgmental survey of training area 18A, this site is located along a small drainage on a slope between the North Tank Trail and the Fort Drum boundary. The site consisted of one possible broken tool of what has tentatively been identified as Nedrow Onondaga chert. Cruciforms at five-meter intervals failed to produce further cultural material. Further testing is recommended in order to define and evaluate this site.

TAs 19 and 20

TA 19 represents the Adirondack lowlands portion of Fort Drum. It is characterized by wetlands interspersed with rocky outcrops. Important features include Mud Lake, Indian Pond and Indian Lake. Prehistoric archaeological sites are found along the shorelines of the lakes and can be tucked away in protected landforms that occur among the outcrops.

TA19

Prehistoric Sites

FDP 1237-1254 TA 19A

These lithic scatters were discovered during a Phase I survey for a proposed timber harvest and are located in the uplands of the Adirondack foothills. The sites were flagged for avoidance until evaluation can be completed. The only exception was FDP 1242 which is a prehistoric component of FDH 1321.

FDP 1000 (A049-03-0046) TA 19A

Although this site is listed as being in training area 19B, the original surveyor's topographical map shows it to be located in training area 19D on the north side of Bonaparte Creek. Given the original site description, this latter may be the correct location. However, the GIS location showed the site in TA19A, approximately 30 meters east of FDP 1001. Shovel tests in 2007 (2007.011) recovered artifacts in clusters at both of these locations and it was assumed that the GIS points were correct. Discovered during a judgmental survey of timber cutting unit 70, the artifacts are listed only as debitage from a shovel test and are either missing or lost. Cruciforms at an unknown interval failed to yield any additional cultural material. Further testing at the 19D location is also recommended.

FDP 1001 (A049-03-0047) TA 19A

Although this site is listed as being in training area 19B, the original surveyor's topographical map shows it to be located in training area 19A on the north side of a small tributary of Bonaparte Creek. Given the original site description, this latter is probably the correct location. Discovered during a judgmental survey of timber cutting unit 70, the only artifact listed on the site form is a quartz flake. Additional cultural material from a cruciform shovel test is mentioned but not identified. Artifacts in the collection consist of quartz shatter and debitage from what appear to have been two positive cruciform shovel tests. The site was believed to have been positively located in 2017 (see FDP 1000).

FDP 1023 TA 19A

Discovered during judgmental survey for timber cutting unit 81, the site is located on a small island or hummock in a beaver pond. At the time of survey it was accessible by means of a beaver dam. The site consisted of one LeRay chert flake found in a shovel test. This artifact is either missing or lost. Cruciform shovel tests at 2.5 meter intervals failed to produce further cultural material. A Phase II was conducted but did not produce further cultural material. Both the shovel test and the test unit recorded an ashy layer but Phase II information reported that it had no clear boundaries within the unit and was believed to be the result of a more recent forest fire. No further testing is recommended for this site.

FDP 1229-1235 TA 19B

These sites are a series of lithic scatters identified during a Phase I survey for a proposed timber harvest in the uplands adjacent to Rockwell Creek. The sites were set aside for protection until further evaluation is possible.

FDP 1185 TA 19C

Located during the Phase I testing for the FUSA Boulevard Upgrade project, this site lies approximately 200 meters southeast of Indian Lake in what was a parking area for Angling Site 24. A small creek, which drains into Indian Lake, runs along the western edge of this site. The site was first evidenced by chert and jasper debitage recovered from shovel tests and their cruciforms. Close-interval shovel testing in order to define the site boundaries showed that the site was confined to open area adjacent to FUSA Boulevard and did extend to the other side of the road. Phase II excavations yielded large amounts of lithic material and two Orient Fishtail projectile points. Carbon-14 testing, taken from the vicinity of the Orient fishtail point, returned a date of 840 +/- 80 BP. An unidentified historic component is also present giving the site a second designator of FDH 1254. Given the site's Orient associations and its location in the uplands of Fort Drum, it is clear that it is very important. The site has been protected and a slight redesign which actually straightened out a curve in the road enabled the engineers to avoid the site during construction.

FDP 1186 TA 19C

Located during Phase I testing for the FUSA Boulevard Upgrade project, the site lies on a rocky hill above the small creek associated with FDP 1186. Several possible argillite flakes and pieces of debitage were recovered from a shovel test and its cruciform. A single 1x1 meter Phase II excavation yielded several more pieces of possible argillite debitage and two possible groundstone tools. However, the pieces were not clearly cultural and no associated cultural features were recorded. No further testing is recommended.

FDP 1220 TA 19C

This site, located on the shore of Indian Pond, was initially identified as a group of positive shovel tests (2001.030) yielding Onondaga and LeRay chert shatter and flakes, quartz and argillite shatter, and fragments of soapstone and red ochre. It was avoided during construction of the Indian Pond fishing access site and is protected.

FDP 1187 TA 19D

Located during the Phase I survey for the FUSA Boulevard Upgrade project, this site lies on a flat area of shoreline along the southeast side of Indian Lake. Most of the shoreline of the Lake

is steep and rocky so these low areas present easy access to the water. In fact, the site was designated Angling Site 24 prior to Cultural Resources excavations. An Orient Fishtail projectile point was recovered from a shovel test and several LeRay and Onondaga chert flakes were found in the resulting cruciforms. Carbon-14 testing associated with the point returned a date of 3380 +/- 70 BP (1430 B.C.). A single 1x2 meter Phase II test excavation was performed. Several post molds were recorded and quartzite and Onondaga chert debitage were recovered. Angling Site 24 was moved to a different location on Indian Lake and the area was protected. Given the Orient associations of this site coupled with its location in the uplands of Fort Drum and its proximity to FDP 1085, this site has the possibility of being National Register eligible. This site is the northernmost location where Orient Fishtail projectile points have ever been found.

TCU 73 TA 19D

Two additional artifacts were curated as having been found during the timber-cutting unit 73 project survey. They are a large jasper core and a large novaculite core. There are no specific proveniences for these artifacts and they are not mentioned in any field notes or the report for the season. Due to the lack of information about these artifacts, no further testing can practically be performed.

FDP 1002 (A049-03-0048) TA 19D

Although this site is listed as being in training area 19B, the original surveyor's topographical map shows it to be located in training area 19D on the south side of Rockwell Creek. Given the original site description, this latter is probably the correct location. Discovered during a judgmental survey of timber cutting unit 70, the site consisted of two Onondaga chert scrapers, multiple Onondaga chert flakes and possible fire-cracked rock from a shovel test. Although cruciform shovel tests at two meter intervals were negative, Phase II excavation yielded a Brewerton corner-notched projectile point and additional debitage. Given the artifact assemblage the site is potentially eligible for the NRHP and further testing is recommended in order to relocate and define the site.

FDP 1003 (A049-03-0049) TA 19D

Although this site is listed as being in training area 19B, the original surveyor's topographical map shows it to be located in training area 19D on the south side of Rockwell Creek approximately 100 meters southeast of FDP 1002. Given the original site description, this latter is probably the correct location. Discovered during a judgmental survey of timber cutting unit 70, the site consisted of two Onondaga secondary flakes and may also include a quartz flake, which was originally misfiled with other artifacts from the same area. Although cruciform shovel tests at two-meter intervals were negative, Phase II excavation yielded 3 yellow jasper flakes and an

unknown amount of unidentified debitage including a utilized flake. Artifacts from the Phase II excavations are either missing or lost. Further testing is recommended in order to relocate and define the site prior to consideration for the NRHP.

FDP 1005 (A049-03-0050) TA 19D

Although this site is listed as being in training area 19C, the original surveyor's topographical map shows it to be located in training area 19D on the northeastern shore of Indian Lake. Given the original site description, this latter is probably the correct location. Discovered during the judgmental survey for timber cutting unit 73, the site was first identified by a number of lithics discovered in the back dirt of a military fighting position. A Phase II excavation, listed variously as one meter and five meters square, was performed. The artifact assemblage consists of a Brewerton corner-notched projectile point, two broken Onondaga bifaces, a graver and a combination graver/scraper of red jasper or possibly Onondaga chert with a red patina, one piece of yellow jasper debitage and more than 100 Onondaga flakes, some of which are heat-altered. This probable archaic site is potentially eligible for the NRHP and further testing will be performed during the upland lake survey.

FDP 1006 (A049-03-0051) TA 19D

Although this site is listed as being in training area 19C, the original surveyor's topographical map shows it to be located in training area 19D on the northeastern shore of Indian Lake. Given the original site description, this latter is probably the correct location. Originally located during the judgmental survey for timber cutting unit 73, the artifact assemblage from 10 positive shovel tests consists of Onondaga chert and quartz debitage. Phase II excavations yielded additional chert and quartz debitage but the actual artifacts are missing or lost. Although this site was originally listed as not eligible for the NRHP, its proximity to FDP 1005 with its Archaic associations should make it potentially eligible. Further testing is recommended in order to relocate and define this site.

FDP 1013 TA 19D

Although this site is listed as being in training area 19C, the original surveyor's topographical map shows it to be located in training area 19D. Given the original site description, this latter is probably the correct location. Originally located during the Range 51 Upgrade project, the site consisted of a single flake listed variously as quartz or quartzite from a shovel test. The original artifact is missing. Cruciforms at 2.5 meter intervals failed to yield further cultural material. For this reason, the site was not considered eligible for the NRHP.

Historic Sites

FDH 1321 TA 19A

The site was discovered during a Phase I survey for a proposed timber harvest. The site is located in the uplands of the Adirondack foothills. The assemblage consists of a clay pipe stem, glass, ceramics, and square nails. A foundation was also noted. The site has been flagged for avoidance and recommended for further testing. The foundation appears on the 1875 Beers *Atlas of Lewis County* labeled "Z.H. Benton". The foundation and the attendant artifacts were labeled FDH 1321 and the prehistoric component was labeled FDP 1242. The site was flagged for avoidance during the timber harvest. Z.H. Benton was Zebulon H. Benton a noted mining entrepreneur and the husband of Caroline de Foie, daughter of Joseph Bonaparte. Benton invested in and owned the iron furnace at Alpina, New York. Historic literature describes a brick house overlooking the iron works in Alpina. The apparent farmstead ascribed to Benton and now identified as FDH 1321 is not described in any of the sources found to date. Fort Drum manages Benton's Alpina holdings as a National Register protected archaeological district. Given this association, FDH 1321 is eligible for listing on the National Register under criterion B.

FDH 1320 TA 19B

This site was discovered by the Forestry crew and reported it to the Cultural Resources Section. When investigated, several large stone piles were noted as was a large foundation in excellent condition. A plowshare was noted nearby. The site does not appear on any historic maps of the area, however, the USGS topographic map does show a trail leading to it from Russell Turnpike.

FDP 1029 TA 20

Although this site is listed as being in training area 14B, the original surveyor's topographical map shows it to be located in training area 20 just southwest of the confluence of Rockwell Creek and the Indian River. Given the original site description, this latter is probably the correct location. Originally located during the Phase I survey of training area 14B, the site consisted of two positive shovel tests which yielded three LeRay chert flakes from level two, and a feature composed of red soil, which could indicate the presence of a hearth. Phase II testing was recommended but never performed and the site was listed as potentially eligible. Further testing is recommended in order to define the site prior to consideration for the NRHP. The site was protected during reconstruction of Bridge 12 in 2008 and remains protected. Prior to cultural resource activity in the area a sweep for probable ordnance is recommended by EOD.

APPENDIX C

OUTREACH

Purpose

This appendix highlights current outreach efforts both within Fort Drum and throughout the wider community. Fort Drum has conducted numerous outreach efforts since the inception of the Cultural Resources Program (CRP). These efforts include presenting at professional meetings and local historic preservation groups' meetings; publishing articles in the post and local newspapers as well as in the professional literature; publishing books on cultural property protection for dissemination to the military community; participating in events, such as the Fort Drum Outdoor Adventure Day activities; and hosting tours. Special events at the Mansion also include Beautify LeRay Day, a participatory garden event; History Open Houses; a Holiday Open House; and Haunted LeRay. In recent years, Fort Drum CRP has been facilitating regularly scheduled tours to archaeological sites throughout the Cantonment and Ranges of Fort Drum. These tours are a coordinated effort between Fort Drum CRP and PAO. The organizational aspects of the tour are taken over by PAO, they secure gate access and transportation as well as organize the advertising in local news media outlets. The point of contact for any outreach event involving the Cultural Resources Program is the outreach coordinator. The current outreach coordinator is Heather Wagner.

Overview

Lost Villages/ Historic Villages of Fort Drum Tour:

This tour goes through the training area and ends in the cantonment, with a visit to the 10th Mountain Division Museum, monument as well as the LeRay Mansion. The training area portion of the tour takes the participants along roads that at one point connected the villages that are now called the "Lost Villages". These lost villages are Sterlingville, Alpina, Lewisberg, Woods Mills, and Leraysville, which is the only one located in the cantonment. This tour is usually scheduled around Veterans Day in November.

Lost Industry/ Historic Industry of Fort Drum Tour:

The tour takes the participants through the training area and does not enter the cantonment. It starts at a farmstead on Borland Road, continues past remnants of a sawmill and then further into the training area. There are two versions of this tour so far, one goes as far as Quarry Pond Archaeological District, while the other version goes to Alpina Dam on Mud Lake. This tour usually takes place at the end of April/ beginning of May.

Both tours include guides from Cultural and Natural Resources to provide detailed descriptions, not just of the history of Fort Drum, but also of the flora and fauna of the region and to describe Fort Drum's responsible approach to managing military land.

LeRay Mansion Historic District

The Cultural Resources program offices are based in the LeRay Mansion, and the Farm Manager's cottage is now the "Conservation Cottage," offering Natural Resources outreach opportunities. The Mansion is open to the public whenever cultural resources staff are present,

normally during government office hours. All are welcome at LeRay Mansion, and the entire Mansion or individual rooms can be reserved for events by contacting bookleraymansion@gmail.com. The Historic District grounds are also open with trails for walking, snow shoeing, and cross country skiing that link to the Fort Drum trail system. There is also a sugar shack for hosting Maple Days events.

APPENDIX D

LERAY MANSION TERMS OF USE AND MAINTENANCE

Terms and Conditions

Note: These terms and conditions were approved by the Garrison Commander on 23 March 2020.

Mansion District Use Terms and Conditions*

The LeRay Mansion District is a tobacco free zone, and the rule applies to all forms of tobacco. Catered events and weddings to be held at the Mansion must book through the Commons to use the facility.

The Mansion is a community asset, not just for the Fort Drum community but also for the greater North Country region. All are welcome to visit the Mansion during regular business hours which are weekdays from 0830 to 1600 except for federal holidays.

This historic LeRay Mansion District is an important national historic site with many irreplaceable features. The Mansion staff expects all visitors to respect the grounds, structures and their contents at all times. The Mansion staff reserves the right to remove any guest from the premises at any time and reserves the right to deny use of the Mansion to any individual or group that has failed to respect the property on previous occasions.

The LeRay Mansion is available for gatherings. Outside members of the public wishing to use the Mansion for a gathering will need to coordinate with the Fort Drum Public Affairs Office. To hold a gathering at the Mansion the following rules apply:

- There is no fee to use the LeRay Mansion, the associated buildings or grounds.
- The proponent must contact bookleraymansion@gmail.com to schedule their gathering
- Outside members of the public need to understand that priority for Mansion access is given to members and organizations associated with Fort Drum.
- When booking, we encourage the proponent to book sufficient time for set up and clean up afterward. The proponent may book additional time for next day clean up. Any changes in agreed upon times should be made at least one week ahead of time.
- The proponent must make arrangements to insure that they will leave the Mansion as clean or cleaner than they found it. For gatherings of more than fifty people involving alcohol, this arrangement will include providing documentation of a cleaning contract to the Mansion staff.
- Proponents may move Mansion furniture to meet the needs of their gathering and will be expected to return the furniture to their original locations, in their original condition.
- Proponents may bring in additional furniture, but they must insure that moving furniture never damages the walls, doorways or any other architectural feature.
- If a "kegerator" must be included for serving refreshments, it requires a waterproof basin in order to protect the floors.
- All proponents of gatherings are required to take their trash with them. Appropriated fund gatherings and MWR may secure their trash in the dumpsters and recycle containers provided in the back parking lot. At no time will trash from a gathering be left inside the Mansion overnight or outdoors.
- All items brought in for a gathering (i.e. Food, serving pieces, linens, furniture, tents, portajohns, etc.) must be promptly removed from the premises within the

scheduled time or 24 hours. Set-up and tear-down is the responsibility of the proponent and not the District or its employees. • The responsible party that has booked the District is liable for any breakage or damage to the LeRay District property caused by themselves, his/her employees, agents or guests.

- The proponents of the gathering are responsible for arranging and paying vendors for everything they require to include: music, flowers, photography, transportation, officiant, cleaners, tents, furniture, catering. No expense will be the responsibility of the District or its employees.
- Inclusion of pets or domestic animals at District events will be determined on an event by event basis. Owners will be expected to clean up after their animals.
- Event participants may park in the lot behind the Mansion. Since parking is limited, event participants are encouraged to car pool, Additional parking for after hours events is available at the Light Fighter School parking lot and at Remington Park. Event proponents may want to consider setting up a shuttle service for overflow parking if available parking is inadequate. For events where more than 150 guests are expected, shuttle service will be required.
- There is no parking on the grass or lawns. Event proponents will be responsible for damage to the landscape associated with parking infractions.
- Event participants must not block the roadways in the LeRay Mansion District Neighborhood.

Considerations:

- Please understand that renovations/restorations are an ongoing process throughout the District and may occur on the property at any time. This work may affect the appearance of areas of the District and that there is no guarantee of the appearance of any area.
- Outdoor gatherings where 150 guests or more are expected will be required to secure bathroom facilities (i.e. port-a-johns) at the proponent's expense, and there is no guarantee that the Mansion will be open or available for such events. As above, all exterior facilities must be removed within 24 hours of the event.
- Proponents of large events where formal catering is planned are requested to offer the Commons or an MWR facility an opportunity to bid on the event.
- Quiet hours in the LeRay Mansion District Neighborhood are from 2100 to 0800. These hours must be observed for all events.
- MWR is the only entity on Fort Drum that is authorized to sell alcohol.
- The LeRay Historic District together with Fort Drum reserves the right to change, without notice, any policy or procedure that has been communicated orally or in writing.

Any infractions of this policy will ban the organization from future use of the District.

Ferms and Use Agreement Form:		
Name of Organization, Unit or Family/Friends Function		
•		
Agreed Upon Times for Mansion or District Access		
Printed Name and Signature of Designee/Proponent/Contact		
Timed Ivanic and Signature of Designee/Troponent/Contact		
Date Primary Phone Number		
Street Address City, State, Zip Code		
Email Address Alternative Phone Number/ Cell Phone		
Email Address Atternative I none (vumber/ Cen I none		

*Note: The terms and conditions listed above do not supersede any Fort Drum regulation. All LeRay District Events and their participants are expected to stay in full compliance with all applicable Army and Fort Drum rules and regulations.

LERAY MANSION MAINTENANCE PLAN

Structural Maintenance

Given its status as a National Register Listed Historic Structure, all maintenance activities at the LeRay Mansion will follow the Secretary of Interior Standards for Historic Preservation. In addition to the standards set out in the rules for Mansion events, daily maintenance will be held to standard as well. Office areas and restrooms used by the staff within the Mansion are cleaned under the Fort Drum cleaning contract, and the cultural resources staff is responsible for light housekeeping throughout. PW supports thorough cleaning of the Mansion on a biennial basis with careful monitoring by the cultural team. For immediate repairs, the CRM is responsible for submitting service orders to PW. It is the responsibility of the DPW to insure that specialists who respond to needs at LeRay Mansion are qualified to work on a National Register Listed structure.

The cultural resources team is also in the process of developing a comprehensive plan that not only addresses routine cleaning and maintenance but will also provide guidelines for monitoring the condition of the structure on a room by room. This plan provides a detailed overview of the building's layout with pictures of the building interior and exterior. Further, condition of architectural features are described and potential issues that the building faces along with guidelines for preventative maintenance.

The plan outlines the roles and responsibilities assigned to individual agencies on Fort Drum that aid in the restoration and maintenance of the building. It intended as a stand-alone document but serves as the overarching strategy that aligns more detailed department and agency plans and operating procedures to meet the needs of a significant historic building. The plan includes maintenance to be performed at various intervals, as well as who is to perform said maintenance. Additionally, repairs already performed are outlined within the first chapter of the plan.

The plan is structured as follows:

- Overview History of Mansion
- Layout
- Current Condition
- Short-term Maintenance

- Long-term Maintenance
- Yearly Maintenance Checklist

The successful implementation of the plan is contingent upon a collaborative approach between all Fort Drum agencies involved. The plan recognizes the significant role these partner agencies and organizations play in maintaining the structure as well as the budget constraints that PW has as its disposal for repairs and maintenance of the LeRay Mansion. When renovations to the outbuildings are complete, comprehensive maintenance plans will be developed for those as well.

Landscape Maintenance

Fort Drum has completed two exhaustive studies of the history of the Mansion landscape that has generated general guidelines for landscape maintenance. The goal is to stay in keeping with ideas would have inspired the original landscape plan for the LeRay estate while

- Providing a safe and welcoming landscape for visitors
- Modeling healthy and ecologically sound methods for landscape maintenance
- Providing habitat for native species
- Encouraging recreational use of the landscape including walking tours and trails along with sponsorship of outdoor events in the Historic District
- Managing the grounds using best management practices for sustainability.

APPENDIX E

AGREEMENT DOCUMENTS

Contents

- Letter between the SHPO and Fort Drum outlining the agreement that the farmstead sites are considered mitigated as a result of the Louis Berger investigations and data recovery.
- Letter from MG Oates to the Onondaga Nation offering Fort Drum's Haudenosaunee Village site as a safe place for repatriated remains
- Inadvertent Discovery Agreement between Fort Drum and the Oneida Indian Nation; signed by MG Hagenbeck and Nation Representative Ray Halbritter



Dave G____

New York State Office of Parks, Recreation and Historic Preservation

The Governor Nelson A. Rockefeller Empire State Plaza Agency Building 1, Albany, New York 12238

518-474-045

September 10, 1987

Mr. Harold W. Wagner, Jr. Lieutenant Colonel, U.S. Army Director, Engineering and Housing Fort Drum, NY 13602-5000

Dear Mr. Wagner:

RE: CORPS 10th Light Mountain Division Fort Drum, Jefferson County

The State Historic Preservation Officer (SHPO) has received your letter drafted July 22, 1987 regarding treatment of archeological resources at Fort Drum.

In accordance with Section 106 of the National Historic Preservation Act of 1966, the Advisory Council on Historic Preservation's regualtions, 36 CFR 800/801, and the Memorandum of Agreement in place for this program, it is the opinion of the SHPO that the following measures will adequately mitigate effects of undertakings on training area farmstead archeological sites:

- Analysis of the distribution of farmstead sites in order to obtain a spatially representative sample of farmstead sites in the training areas.
- Performance of Stage I/II level of effort on a spatially representative sample of training area farmstead sites, not exceeding 12 sites.
- Performance of Stage III data recovery on an appropriate, selected farmstead site/sites in consultation with the State Historic Preservation Office.

If you have any questions, please contact our Project Review Staff.

Sincerely,

Julia S. Stokes

Deputy Commissioner for Historic Preservation

JSS/RLE:nb cc: Dr. David Guldenzopf Lloyd Chapman

An Equal Opportunity/Affirmative Action Agency



DEPARTMENT OF THE ARMY HEADQUARTERS, 10TH MOUNTAIN DIVISION (LIGHT INFANTRY) AND FORT DRUM FORT DRUM, NEW YORK 13602-5000

REPLY TO ATTENTION OF January 3, 2008

Office of the Commanding General

Onondaga Nation Office of Historic Preservation RR #1 Route 11A Box 319B Via Nedrow, NY 13120

Dear Faithkeeper Gonyea:

Thank you for your kind words. It was a privilege to meet with you and the other members of the Onondaga Nation leadership.

As you know, the Iroquoian Village site on Fort Drum is currently protected and is a restricted area. It also has been very carefully mapped and is excluded by the Fort Drum Master Planning office from any potential development by the United States Army. Since there are already ancestors buried at the Village, we share your view that this location is a sacred place. Should there be ancestors who may have been disturbed from this place or who need a safe place to return in Jefferson County, we would encourage you to re-inter them at this location.

From a legal perspective, the Village is protected by Fort Drum's implementation of the National Historic Preservation Act and the American Indian Religious Freedom Act. In addition, Executive Orders 13175 and 13007 further require any future Commander at Fort Drum to consult with the Onondaga Nation in good faith prior to taking any action that would compromise this place in any way. Should the Army ever wish to divest itself of this land, the National Historic Preservation Act requires that the United States Army make allowances for continued protection of this sacred place, again in consultation with our Native American partners.

Sincerely,

Michael L. Oates

Major General, US Army

Commanding

FORT DRUM AND ONEIDA INDIAN NATION

PROTOCOL

DISCOVERY AT FORT DRUM OF NATIVE AMERICAN HUMAN REMAINS AND ASSOCIATED FUNERARY OBJECTS, SACRED OBJECTS, OR OBJECTS OF CULTURAL PATRIMONY

Given,

The Fort Drum Army Installation is an extensive area in which Native American archeological remains (including human remains) could be encountered at any time.

The Native American Graves Protection and Repatriation Act states that Native American human remains and associated objects discovered on federal land belong to the most appropriate Native American party of the present day.

Fort Drum is committed to meeting the letter and the spirit of NAGPRA (and other relevant legislation and executive guidelines).

The Oneida Indian Nation feels responsible for care-taking the remains of ancient ones within its ancestral boundaries (aboriginal territory).

Fort Drum is within the aboriginal territory of the Oneida Nation.

The U.S. Army and the Oneida Indian Nation share a proud legacy of defending, and when necessary, dying for the United States. America's first allies, the Oneidas, stood shoulder-to-shoulder with their American Army brothers at Oriskany, Fort Stanwix, Saratoga, and Valley Forge in the war that won independence for the United States. In addition, the military assistance of the Oneida Indian Nation rendered to the U.S. forces during the Battle of Big Sandy Creek and the subsequent Great Rope Carry to Sackets Harbor, NY directly contributed to the successful control of Lake Ontario by American forces during the latter part of the War of 1812. Oneidas have fought for the United States in all the major wars since 1812.

The U.S. Army and the Oneida Indian Nation are neighbors sharing an interest in the region's past.

Having already begun to work together advancing a common legacy and interests, the two parties wish to work together further and to enhance their friendship as evidenced by this understanding.

Therefore,

Fort Drum and the Oneida Indian Nation enter into this agreement,

-believing it to be consistent with procedures governing such events on federal lands set out in NAGPRA Regulations Part 10;

 -and executed in a respectful atmosphere of good faith, government to government dealings.

The purpose of this protocol is to anticipate what will occur if human bones are found and, if such remains are encountered, to:

- promote respectful treatment of any Native American remains and/or funerary objects encountered;
- discuss proper ownership of remains and associated objects; and
- ensure their rightful return or disposition.

The parties acknowledge that:

-the least amount of excavation/disturbance of human remains is generally best; -and that local re-interment of human remains is a desirable goal.

In the event Fort Drum believes a project will disturb human remains, Fort Drum will consult with the Oneida Indian Nation in accordance with federal law.

In the event that human remains are discovered at Fort Drum, Fort Drum will determine whether the remains are recent, crime related, non-Indian etc. The Oneida Indian Nation acknowledges and supports Fort Drum's legal obligations.

All parties are aware that Fort Drum's obligations are subject to the availability of funds, and mission and security requirements, which may on rare occasions delay the commitments pertaining to time schedules for any activity specified herein. Fort Drum will immediately notify the other party if these events occur and reschedule activities to the mutual satisfaction of both parties. Emergency actions will be coordinated by telephone or fax.

If the human remains seem likely to be Native American, Fort Drum will expeditiously initiate consultation with the Oneida Indian Nation.

Consultation, in the context of NAGPRA, necessarily focuses on appropriate custody if both parties agree non-disturbance and local re-interment are not feasible. The two parties agree to collect and/or share any information that will assist in meeting NAGPRA requirements, and especially whether direct lineal descendants or an Indian tribe owner can be identified, and whether cultural affiliation is ascertainable.

If it is agreed that descendants are identifiable or non-Oneida cultural affiliation seems likely, the Oneida Indian Nation will, if requested, assist Fort Drum in the appropriate disposition of the remains to the lineal descendants or to another federally recognized native group.

If no descendants can be identified and cultural affiliation cannot be established with another native group, the Oneida Indian Nation will advise as to proper treatment and assume responsibility for reburial.

Nothing in this agreement is intended to modify the rights and obligations of either party under federal law or to create any enforceable rights.

In witness whereof, the parties hereto have executed this protocol on the date(s) set forth below.

F.L. Hagenbeck Major General, US Army Commanding

Date

Ray Halbritter Nation Representative Oneida Indian Nation

Date

APPENDIX F

GEOSPATIAL DATA COLLECTION VIA GPS

PURPOSE

The use of the Global Positioning System (GPS) for accurately and efficiently storing feature locations and attributes has become a widely accepted method for collecting geospatial data. To ensure alignment with Army geospatial data standards, this chapter details the requirements for geospatial data collection and processing via GPS.

GEOSPATIAL DATA STANDARD

Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) Army Adaptation (AA) is the geospatial database standard for the Army. Where applicable, SDSFIE AA version 4.0.2 feature classes will be utilized to represent cultural resource features. Each feature class will adhere to the guidance specified in the associated layers Quality Assurance Plan (QAP), if available.

ENVIRONMENTAL DIVISION GEOSPATIAL DATA MANAGER

Prior to the start of the field season, consult with the Fort Drum Environmental Division Geospatial Data Manager to address any changes or updates necessary to the geospatial data collection process via GPS to maintain consistency with the most current SDSFIE AA. Coordination with the Environmental Division Geospatial Data Manager shall continue to occur throughout the field season to ensure/confirm the implementation of appropriate data collection protocols/processes.

GPS FIELD EQUIPMENT

For capturing new geospatial data or updating existing geospatial data, utilize mapping grade or better (i.e. non-recreational grade) GPS equipment, such as Trimble or Magellan. To ensure high quality/precision GPS data, conduct data collection when positional dilution of precision (PDOP) is 4 or less. In addition, the raw GPS data must undergo differential post-processing utilizing a permanent GPS base station with a high integrity index (i.e. 70-100). The target accuracy for the resulting differentially corrected GPS field survey data is specified in *Section 2.6: Horizontal Accuracy* of the associated data layer QAP.

FIELD DATA COLLECTION PARAMETERS

GPS field work must be performed by personnel that have had training in basic GPS concepts, receiver operation, and software (i.e. Trimble TerraSync). How a receiver's critical parameter settings (PDOP, minimum positions, etc.) affect data collection must be very well understood. Personnel must also have familiarity with the types of features that are to be located and collected.

To achieve the data standard target accuracies, all collected GPS data must be differentially corrected.

DATA DICTIONARY

A data dictionary is a custom list of features and attributes to help streamline field data collection and ensure data integrity. The Environmental Division Geospatial Data Manager maintains a data dictionary specifically for the collection of cultural resource features that aligns with the most current SDSFIE AA. Using the data dictionary for GPS data collection ensures that data collected will be compatible with existing data and incorporated into the Environmental Division geospatial database of record (GDBR) with minimal effort.

COORDINATE SYSTEM

All geospatial data collected via GPS shall be geo referenced with projection information defined in the data file that is submitted. All geospatial data shall be collected using the following coordinate system: Universal Transverse Mercator (UTM) Zone 18N, Meters, World Geodetic System 1984 (WGS84). The vertical datum shall be Mean Sea Level (MSL) as determined by the Earth Gravitational Model 2008 (EGM2008) Geoid.

PROCESSING OF GPS FIELD DATA

All GPS data collected must undergo post-processing steps using GPS processing software (i.e. Trimble GPS Pathfinder Office) before the data can be used to generate a geospatial data layer. The GPS processing software must be able to download GPS data files from the GPS receiver and perform differential corrections. For post processed differential corrections, several resources exist for GPS base station data in New York. The nearest operating base station with the highest integrity rating should be used. In addition, the software must allow exporting the corrected data to a compatible format (i.e. shapefile, file geodatabase, etc.) in the correct coordinate system with automatically generated attribute information for exported features. This information can provide users of the geospatial data an indication as to the quality of the GPS fixes that were used to generate the features. Coordinate with the Environmental Division Geospatial Data Manager to ensure the GPS processing software is properly configured to generate the necessary attributes for exported features.

MANAGING GPS FIELD DATA AND PROCESSING LOG FILES

GPS field data files and associated processing log files will be by managed and archived by field season. At the start of each field season a new folder, named according to the given field season year (YYYY – ex. 2020), will be created within the appropriate folder on the server.

Prior to each Data Transfer/Post-Processing session, create a new folder under the given field season year folder using the following format: YYYYMMDD (ex. 20200727). This will ensure a

proper archive of past data transfer sessions and ensure files will not be overwritten. All GPS field data files, both corrected and uncorrected versions, as well as all GPS processing log files pertaining to post process differential correction and export associated with the given data transfer session will be stored in this folder. Repeat process for each data transfer/post-processing session performed throughout the field season.

	1E
GIS Locational Data Form	
Project Number	
	3
Easting, start of baseline	
Northing, start of baseline	
Easting, end of baseline	
Northing, end of baseline	
True North* Azimuth of transects from baseline	
Spacing of Transects in Meters	
Maximum Number of tests along transect	· · · · · · · · · · · · · · · · · · ·
FIT	
Total Number of Transects on Baseline	
Project Number	 ,
Baseline Number	
Beginning Transect Number on Baseline	·
Beginning STP Number on Baseline	-
*If the compass did not have a declination setting, magnetic reading. Magnetic north or compass rea	

APPENDIX G

CREW ORIENTATION MATERIALS

PHASE I FIELD PROCEDURES

FIELD NOTEBOOK

The field notebook is a general-purpose log for narrative field notes and description. It will only be used for recording daily work in Training Areas, transects and shovel test profiles, and to add notes or explain the excavation techniques used during the testing of units and features. Always date your entries. Begin each day's entry on a new page. The site number, project number, baseline number and azimuth, transect number and azimuth, shovel test, unit, etc. must always be written in the book. The notebook may be used for sketches; always indicate the project number or area, the scale, magnetic and grid north orientation of the drawing, your initials, and the date. Label the drawing as well. Any notes pertaining to the immediate environment of the project area (vegetation type, or the coverage by the vegetation) and the location of the project in relation to landforms should be included in your field notebook. Under no circumstances are features or units to be given a "pet" name, please see the crew chief or survey coordinator for a number for a unit of feature. Include basic test unit information and measurements each day even though these are also recorded on your Level Forms. Both you and your partner should record all information every day. This will eliminate the possibility of lost data if one of you loses your fieldbook.

SHOVEL TESTING

Phase I subsurface testing for prehistoric cultural resources within the project area is conducted using shovel test pits (STPS) dug at 15 or 20-meter intervals. All shovel tests will be identified by transect and consecutive shovel test number (Transect 1, STP 5). Each STP is excavated to a depth at least 10 centimeters below sterile subsoil. Depth measurements are recorded using the metric scale and soil profiles use standard Munsell soil notations. Both of these should recorded in your field book and later on the Shovel Test Record form. All soil excavated from shovel tests is screened through 1/4" (quarter-inch) mesh to locate cultural materials. Any cultural materials recovered are bagged by level within the shovel test and recorded for further analysis and identification.

If a shovel test is to be cruciformed, cruciform shovel tests are dug at $1\neg$ meter intervals around the original shovel test pit. If any of these are positive, the corresponding 5-meter, 10-meter and 15-meter shovel tests should be dug as needed. Cruciform shovel tests should be numbered with the number of the original shovel test (X) followed by the decimal indicator of the cruciform position.

- X.1 indicates the 1-meter shovel test on the transect azimuth.
- X.2 indicates the 1-meter shovel test $90\Box$ clockwise from X.1
- X.3 indicates the 1-meter shovel test on the reverse transect azimuth
- X.4 indicates the 1-meter shovel test $90\Box$ clockwise from X.3

If 5-meter or more cruciforms are needed, the numbering continues clockwise with X.5, X.6, etc. Do not cruciform off negative cruciform shovel tests and use only the numbers needed. Remember, the cruciform shovel test number refers to the position around the positive STP and not to the actual number of STPs dug. (See Cruciform Protocol at the back of the handbook). Soil profiles are recorded for each shovel test.

All shovel tests must be backfilled upon completion. Use the sample STP form and the instructions with the form to complete the STP form. Also use the form that lists the Field Characteristics of the Major Soil Textural Classes as the standard abbreviations for your soil textures, and how to determine your soil textures. Note: Consistency in abbreviations is essential. Use the list below and no other abbreviations. This material is entered into a database and the degree of consistency in your information is directly related to quick and accurate entries.

SHOVEL TEST RECORD

Data from no more than 6 shovel tests are recorded on one form. Information for more than one transect should never appear on the same form. The shovel test form allows you to draw a profile of each shovel test and should include the depths of each stratigraphic or natural level/strata, Munsell soil color notation, soil texture (sand, clay, loam, etc.), and a brief description of the number and type of cultural material. The null sign (\square) will be used when no cultural material is present. The letters EOT should appear at the end of a set of paperwork for a transect. Headings must be filled in on all forms.

Instructions for STP Forms

- 1. There must be a heading on every page.
- 2. A color for each level indicated must be included using the Munsell Soil description.
- 3. Use ONLY the following abbreviations for soil textures on each level:

SAND = s
LOAMY SAND = ls
SANDY LOAM = sl
LOAM = l
SILT LOAM = sil
SILTY CLAY LOAM = sicl
CLAY LOAM = cl
SANDY CLAY LOAM = scl
SILTY CLAY = sic
CLAY = c
SANDY CLAY=scl

Please see the attachment at the end of the orientation manual for information on determining these soil textures.

4. For the artifact column please use the \Box to indicate that no cultural material was present.

- 5. If artifacts are recovered please indicate using a general description of the artifact and include an artifact count. For example, 15 chert debitage, 2 chert flakes, 2 prehistoric ceramic, or 5 historic ceramic. Also note the level each artifact came from. It is important to differentiate between prehistoric and historic ceramic materials.
- 6. Please indicate the depth of each level.
- 7. W/O will indicate that a shovel test has been written off. A reason MUST be included, such as military disturbance or standing water. W/O may never stand for "walkover".
- 8. PWO indicates a Pedestrian Walkover, use this when the surface is 100% visible and can be evaluated by a surface collection. These shovel tests are not considered to have been written off.
- 9. Use EOT to indicate that the transect was completed.

BASELINE RECORD

The baseline information sheet for each project will need to be filled out by the crew chiefs or program coordinator. This should be done at the end of each day. This sheet is important for entering the shovel test information into the database record.

TRANSECT STATUS RECORD

The transect status form will be used to record a summary of the work conducted on transects along a single baseline and will be completed by the crew chiefs or program coordinator. The form asks you to record: the transect, the team working on the transect, the number of STPs attempted, completed, written off, or walked-over, the number of positive shovel tests, and the number of artifact bags. Data from no more than 4 transects will be recorded on one form. Any new baseline will require a new form. The comment section should include the numbers of the shovel tests that were either written off and/or positive. It also should include the type of artifacts found in the positive shovel tests. General descriptive notes can be added as well.

PROJECT NUMBERS AND SITE NUMBERS

The program coordinator or crew chief will give the project number on a daily or as-needed basis. Each crewmember is responsible for writing the project number in their field notes. Following the completion of Phase I testing, sites will be identified using consecutive project and field numbers in conjunction with the abbreviations for Fort Drum Prehistoric and Fort Drum Historic (FDP, FDH respectively) (e.g. FDP1004). A New York State Prehistoric Site Inventory Form will be prepared for the New York State Historic Preservation Office (SHPO) to obtain an official state site number. When referring to a site, on forms and in notebooks, use both site numbers if they are available.

FIELD ARTIFACT BAGGING

All recovered cultural remains (artifacts, flotation samples, etc.) will be placed in sealable (zip-lock) plastic bags. Using a black "Sharpie," the project number (2004.001, etc.), project/site name (Training Area 12A, FDP1004), baseline, provenience (transect number, shovel test number, and level), test unit coordinate (if applicable), feature number (if applicable), the level

from which the artifact was recovered, date, recorder's first initial and last name, and number of artifacts will be written on the artifact bag. If an artifact is too large to fit in a bag, an artifact tag will be securely tied to the artifact with string. The tag will contain the same information as the artifact bag. Floral and faunal remains, complete artifacts, and fragile items may require separate bags or film canisters. In addition, if there is more than one bag for a provenience, the bags will be marked bag 1 of 3, 2 of 3, and 3 of 3 respectively. See below for all information needed on each artifact bag. Also note in your field books when artifacts are recovered and identify the artifact type.

It is important to bag artifacts from different levels of the same shovel test separately.

Included on artifact bags:

- 1. Project Number
- 2. Project Name
- 3. Training Area Number (if applicable)
- 4. Site Number (if applicable) (FDP 1090 or FDH 1070 as an example; FDP stands for Fort Drum Prehistoric and FDH for Fort Drum Historic)
- 5. Baseline Number (BL #)
- 6. Transect Number (TR #)
- 7. Shovel Test Number (STP #)
- 8. Level (of STP or Unit)
- 9. Test Unit Number (if applicable) (TU #)
- 10. Feature # (if applicable) (Fea #)
- 11. Date
- 12. First Initial and Last Name of Both (or all) Team Members
- 13. Number and type of Artifacts
- 14. Total Number of Bags for that Provenience (bag 1 of 3 etc.)

You must use the abbreviations shown above.

SITE MAP

A site map will be completed for each newly identified site. The map should show the entire site area and relationship(s) to landforms, contours, structures, roads, disturbed areas and other landmarks that may aid in documenting and relocating the site. The map of the site should be to scale and include an arrow indicating both grid and magnetic north. The map should also indicate the test grid used for shovel tests, surface collection units and excavation units and should include a legend denoting positive tests, subsurface features, concentrations, etc. Historic foundation plans and descriptions should include construction material information (brick, limestone masonry, concrete, wood, plaster, etc.) as well as construction details.

PHOTOGRAPH LOG FORM

All photos taken with the digital camera or cell phones should be recorded in your field book. When the pictures are downloaded, you should be prepared to provide a written photo log

including the date, location, subject of the photo and direction of the photo. For Phase II projects, cell phone photos will be taken and emailed to the program coordinator. (Wi-Fi will be provided for this purpose). Each test unit will have its own photo log. Photos will also be taken of units, levels, features and profiles during Phase II testing and will be recorded on this form as well. Enter the project number, camera number, exposure number, site name, description of photo, direction and date. Be sure to include the photographer's name/initials.

SURFACE COLLECTION AND SHOVEL TESTING

Sites that have been previously identified by surface collection and/or are situated on eroded sand dunes (where excavation is extremely difficult due to severe wind erosion) are tested using intensive surface collection and shovel testing. A site datum is first established which is tied into USGS benchmarks or permanent landmarks and located using Global Positioning Systems (GPS) data where possible. A rectangular grid of 5-meter or 10-meter intervals is then laid out over the site area, with grid square intersections marked by fluorescent orange paint or pin flags. Each 5m x 5m (or 10m x 10m) grid square is then identified by the coordinates of its southwest corner, which is the datum for each unit (i.e. N505E490).

Surface collection is conducted on 100% of the visible surface area, and any cultural materials recovered are plotted according to their location within a particular grid square. When the collection is complete, assembling the individual grid square results creates a composite grid map of the total number of surface finds. This map is then used to analyze and interpret any possible patterns of artifact concentrations.

Following the completion of the surface collection, shovel testing is conducted at 10- meter intervals with the existing grid as a guide. Using one side of the rectangular grid as a baseline, transects are tested across the grid perpendicular to the baseline. Transects are identified by numbers and individual shovel tests are designated with numbers, as with standard Phase I field procedures.

PHASE II FIELD PROCEDURES

If a Phase I survey of a prehistoric archeological site indicates that the site may be potentially eligible for listing on the National Register of Historic Places, Phase II testing is conducted to provide data for a final assessment of the site's eligibility. Generally, excavation units are used to test areas where surface collection units and shovel testing have identified features or potential features and artifact concentrations. If the data obtained from these methods are sufficient to fully assess the site's National Register eligibility, further fieldwork may not be necessary.

PHASE II PROTOCOL

1. Southwest corner acts as the unit datum. A line level is secured to the position/level of the highest corner in the unit. This will provide exact contour data for the grid set and standardize the procedure.

- 2. Test units will be excavated in arbitrary 10cm levels unless the natural level is thinner than 10cm or a new natural level is reached before the next 10cm mark. A new level form should be used for each level.
- 3. Photographs do not need to be taken for each new 10cm level unless there is a significant change in soil color, or you have a feature or in situ artifact in your planview. If you are uncertain, take a picture anyway. When closing the unit, photograph all four walls.
- 4. Plot artifacts from closest walls and include below datum depths for diagnostics, features, and debitage clusters.
- 5. Planviews are still required for all levels and should include wall to wall provenience and below datum depths.
- 6. Features are recorded by number beginning with 1. New features in lower levels are numbered accordingly. This will keep features organized when they penetrate more than one stratum. If a feature reappears in an adjacent unit and has a different number, use the same symbol in your planviews for both units.
- 7. Munsell each level and feature and include soil type.
- 8. Soil and carbon samples are extracted from strata with an uncontaminated instrument and placed in a clean, unused bag. All provenience information will be included on the bag. Note the location and below datum measurement on either a planview or profile. Always collect soil from around a diagnostic artifact found in situ.
- 9. Profile your best-looking wall using the datum level. Be sure to write which wall you are profiling when drawing the map. If features appear in more than one wall, you may have to profile all walls.

UNIT/LEVEL RECORD FORM

A unit/level form will be filled out for each excavation unit level. Levels will be numbered consecutively through the unit. The unit/level form records depth, level, soil, features, and artifacts recovered. Closing depths from one level will be made using a line level from the unit datum (0 elevation) in the southwest corner and should be identical to the opening depths for the next level.

FEATURE FORM

A feature form, located on the back of the level form, will be completed for each feature identified within a unit. The feature form records depth, dimensions, shape, levels, and contents of features. Additional descriptive and interpretive comments on features should be recorded on the level form and also written in field notebooks. Photograph and draw a planview of the feature before completing a bisection. Features will be bisected on either a north-south or east-west axis. One-half of the feature will be removed and screened through 1/4" mesh. Following the excavation, a profile is drawn the un-excavated portion and the feature is photographed again. Next, the second half of the feature is removed and placed in 1-liter plastic bags for

flotation and/or C-14 analysis. All recovered materials from the excavated portion of the feature are bagged separately from the flotation sample and from other artifacts found within that level. Both are assigned a provenience corresponding to the feature, unit and level. Be sure to label the bags as you would for other artifacts (see Field Artifact Bagging and Artifact Bag Catalog).

PROFILE AND PLANVIEW DRAWINGS

Profile drawings will be made on graph paper for one or more walls at the completion of each excavation unit. On the graph paper, the wall (north, south, east, west), the elevation of the line level above or below the unit datum, ground surface, levels and the base of the excavation or unit floor will be identified. Profile drawings will also be made for east-west or north-south cross sections of features. Planview refers to the "bird's-eye" view of an excavation unit(s) and should include an arrow indicating magnetic and grid north, spot elevations, etc. Profile drawings and planviews should contain a key to describe the texture and Munsell color of soil strata, any stone tools, pottery, fire-cracked rock, reddened soil, charcoal, and other prominent features. Roots, root stains, and animal burrows may be included on profile drawings. Leave ample space to repeat the identifying information for the title, i.e. site number, state site number, unit, profile/planview, date, initials, orientation, etc. The metric scale will be used for all planviews and wall profiles. Use the key included in the Phase II kit for legend symbols. Symbols for soil colors, etc. should remain consistent throughout the unit paperwork.

LABORATORY ANALYSIS

Artifact accessioning and cataloging will be covered in greater detail as needed. The processing of all recovered cultural materials is conducted at the Fort Drum Artifact Curation Facility (ACF), Building P-4836 in accordance with Fort Drum's Repository Curation Methodology. The contents of each bag returned from field excavations are checked and verified against field records to ensure that no artifacts or provenience data are lost. No prehistoric material will be washed; chert and ceramic can be dry-brushed. Charcoal, bone, and other fragile material will remain with the soil they are in context with and will not be washed. Different artifact types from the same unit will be accessioned separately. Remember to keep artifacts separated not only by type and diagnostic but also by provenience first. After cataloging and typing the artifacts, write all provenience information on the bag (labels inside the bags will be added later by the curator). Soil will be accessioned separately using a soil accession log. During rain days you will be required to work in the lab or the curation room. Duties will be assigned at that time but will include accessioning, flotation, separation of flotation, curation.

CATALOGING/ACCESSIONING

The artifact bags will be logged on a CRS cataloging worksheet. All of the artifact bags from the same provenience containing the same material type (e.g. ceramic, chert) are cataloged together using only one accession number, beginning with .001. If two material types are found in the same provenience then each type of artifact is given its own accession number.

The artifact bags from different proveniences from the same site will be given their own accession number following with the next consecutive number: .003, .004, etc. Diagnostic

artifacts will receive their own accession numbers. Basic drawings of diagnostic materials will be drawn on the catalog sheet for easy recognition. This is an example of a complete accession number: 1995.32.006. This equals "year.project number.accession number". This number will be written in the accession number space on the Cataloging Worksheet along with all provenience information.

EMERGENCY PROCEDURES IN THE FIELD – SEE ALSO SOP #13 SAFETY

Field Accident Protocol

If the event of becoming lost in the field:

STOP and stay where you are as soon as you realize you are lost. Attempt to establish contact with other crew members by yelling or phoning. If you hear other crew in distress:

- 1.) Signal that you have heard them by yelling.
- 2.) Use your compass to establish a bearing toward the crewmember in distress.
- 3.) Walk toward the person who signaled. (It is important that the crew member who signaled stay in the same spot so that others can establish a heading). If you are in a team of two, leave one person behind so you have a known point to return to.
- 4.) When you have established contact and learned the nature of the emergency, take the necessary steps to secure help.

If you are lost and no one answers your yelling it is important not to panic and to remain in one place. The closer you are to where you should be, the easier you will be to find.

In case of emergency:

- 1. If an area needs to be evacuated immediately when crew are in the field, crew will hear three long blasts of the vehicle horn. These three blasts indicate that crew should immediately evacuate the area. Gear not easily and quickly gathered or carried should be abandoned. Crewmembers should return to their vehicles. Never leave your partner behind.
- 2. If you see ordnance (or think you do), do not touch it. Flag the ordnance at a safe distance, leave the immediate area and notify your crew chief at once. He/she will take appropriate action.

In the event of a medical emergency:

- 1. Contact your crew chief immediately.
- 2. If your crew chief is not available contact the Survey Coordinator (315-772-2150, 315-408-5745).
- 3. Crew chief will contact Survey Coordinator (315-772-2150) and other parties, as he/she deems necessary. Other parties to include: Fort Drum Cultural Resources Manager, 315-772-4165 OR 315-783-9894, Range Control Radio Room 315-772-7152 or 911.

- 4. In the event that you are unable to reach your crew chief or Survey Coordinator proceed to call the Range Control Radio Room 315-772-7152. First Aid kits will be in all vehicles that carry crewmembers.
- 5. Do not administer any medicines without medical approval.
- 6. Remember: cell phones are not secure connections. Never transmit the name of an injured party or any personal information about him/her. Use discretion: do not transmit anything you do not want widely known.
- 7. In case of vehicle accident with a CSU rental vehicle:
 - 1. Contact your crew chief immediately.
 - 2. Crew chief will contact Survey Coordinator (315-772-2150) and other parties, as he/she deems necessary. Other parties to include; Fort Drum Cultural Resources Manager, 315-772-4165.
 - 3. If your crew chief is not available, contact the nearest person with a cell phone so that they may call the crew chief, or Survey Coordinator (315-772-2150).
 - 4. In case of medical emergency, see medical emergency protocol above.
 - 5. Be prepared to show identification and vehicle information, which will be in your glove compartment. When possible photograph damage to both the vehicle you are operating and other vehicle or damaged property. Remain on scene until the MPs arrive.
 - 6. Remember: cell phones are not secure connections. Never transmit the name of an injured party or any personal information about him/her. Use discretion; do not transmit anything you do not want widely known.

In case of vehicle accident with a GSA vehicle:

Follow the instructions provided in the dispatch notebook in the vehicle.

If you are injured at work you must notify your crew chief and Survey Coordinator and fill out an injury report immediately. Failure to do so could result in not being able to file for worker's compensation should you later need medical attention. Even if your injury seems minor, it is better to fill out a report than to wait till later. If you are bitten by a tick, notify your Program Coordinator as soon as possible. An injury report will be submitted for the first tick bite each person receives. This report will suffice for the season, no matter how many additional bites there are.

DOWN RANGE PROCEDURES

Anywhere that is not Cantonment (the fenced area southwest of State Route 26) is considered down range. Never go down range without checking in at Range Control for clearance. Also remember to take yourself off the Range board when you return. Normally your crew chief will take care of this but you may be required to go yourself for special projects. Always take some form of communication (usually a cell phone) with you and let your crew chief know where you are going. The speed limit on the tank trails is 30 mph. It is important to observe this at all

times. In some cases, you may need to drive slower. Due to dusty conditions on most roads, headlights must always be used. Seatbelts must be worn at all times by all crewmembers.

Remember that cell phones and radios are not considered secure forms of communication. Never discuss sensitive issues (such as possible human burials) over the phone or on the radio. Remember that everyone in the area with a radio can hear your conversations.

Be professional.

Your job here does not entitle you to go down range for any reason on your own time or in your own vehicle. Field vehicles have special passes that allow them in the training areas. If you wish to go down range on your own time, you must use your own vehicle, and you must obtain a recreational pass using Fort Drum's I-Sportsman system.

If you meet soldiers in the area where you are working, notify your crew chief immediately. He or she will coordinate with the soldiers and determine if it is safe for you to remain in the area. If your crew chief is unavailable, return to your vehicles and wait. If you have any problems with soldiers, you need to record the information on the bumpers of their vehicles and then report the incident to your crew chief. Without the bumper numbers, it is difficult to file a report with Range Control.

Orange safety vests must be worn at all times unless specified by your crew chief. Crewmembers may substitute blaze orange T-shirts for the vests if they choose. This serves to make you visible to hunters who may be in the area and to identify you to soldiers as someone who should be in the area.

If you find any ordnance in the field, you should flag the area (not too close to the ordnance) and leave. Notify your crew chief immediately. Never touch anything you cannot identify. Crew chiefs will notify the Program Coordinator who will take steps to identify and remove the ordnance.

SEXUAL HARASSMENT/ANTI-BULLYING POLICY

Sexual or any other form of harassment and bullying behavior or comments will not be tolerated at any time. If you are the target of these behaviors, notify your crew chief immediately. He/she will take the proper steps to mitigate the problem. You may also go directly to the Program Coordinator if you prefer. You may also report improper behavior toward another person if you feel uncomfortable with something that happened or was said. In both cases, it is important to report the problem immediately.

Inappropriate behavior will result in a report to CEMML Human Resources and the immediate termination of your employment.

ATTENDANCE POLICY

The field crew works Monday-Thursday, 7:00am to 5:30pm. There will be four mandatory holidays during the regular field season: Memorial Day, the 4th of July, Labor Day and Columbus Day. In these weeks the field crew works Friday to make up the time. If you will not

be at work you must either 1). Let your Program Coordinator or crew chief know ahead of time and write it on the attendance calendar or 2). Call or text the Program Coordinator (315-408-5745) and leave a message. If you do not do so, it will be considered an unexcused absence and you will be given a warning. Your second unexcused absence may result in dismissal. Except in special circumstances, there will not be opportunities to make up for missed time.

GENERAL INFORMATION

Due to heightened security measures, it is necessary for you to carry some form of identification on your person at all times. Failure to do so could result in your not being allowed on Post or being asked to leave the training areas.

Field gear issued to you by the Ft. Drum CRS is to remain in the ACF during non-work hours. This is to eliminate the possibility of forgotten gear or paperwork.

Crewmembers must be 21 or older to drive CSU rental vehicles.

Crewmembers must possess a U.S. Army Motor Vehicle Operator's ID Card in order to drive GSA vehicles.

When driving in Cantonment or on the tank trails, remember that the speed limit is 10 mph when passing troops in formation and during PT hours (0700-0830). Obey the posted speed limit at other times.

Remember that it is a New York State law that you may not use a cell phone while operating a motor vehicle. This also applies to all Fort Drum roads. Unless your phone is equipped with a hands free kit, you must pull over while you talk. Further, it is a Program rule that even hands free devices may not be used while operating CSU rental or GSA vehicles.

Use of personal cell phones for non-work related calls and texts should be kept to a minimum and restricted to breaks and lunch time.

Do not post pictures of sites or artifacts to social media without permission form the Cultural Resources Manager. If you are given permission, locational tags must be removed prior to posting. In sharing general photos of day-to-day activities, be professional. Remember that you are representing both Colorado State University and the Cultural Resources Program. Remove locational tags.

Although we do not have a strict dress code, discretion is required. Short shorts and halter tops are not allowed. Both males and females may wear tank tops but armholes should be snug and straps should be wide enough to cover bra straps (no spaghetti straps). Remember that you will be in view of soldiers and their families. Clothing with logos or print that may be offensive (i.e. peace symbols or anti-war slogans) may not be worn at any time.

*** IF AT ANY TIME YOU HAVE A QUESTION PLEASE DO NOT HESITATE TO ASK YOUR CREW CHIEF OR PROGRAM COORDINATOR. FOR QUESTIONS CONCERNING THE STORAGE/CURATION OF ARTIFACTS AND DOCUMENTS CHECK WITH YOUR CREW CHIEF OR ASK THE COLLECTIONS MANAGER***

EMERGENCY PHONE NUMBERS

THESE NUMBERS ARE PLACED IN THE ORDER IN WHICH YOU SHOULD CALL IN THE EVENT OF AN EMERGENCY

FIRST ATTEMPT TO CONTACT YOUR CREW CHIEF, THEN TRY:

315-772-2150 (Cell 315-408-5745) SURVEY COORDINATOR

315-772-4165 (Cell 315-783-9894) DR. RUSH

315-772-9914 (Cell 315-783-5747) IAN WARDEN

315-772-5971 JASON WAGNER

315-772-9636 WILDLIFE (RAY RAINBOLT)

Make sure you have these numbers in the field with you at all times.

Please return this page to your crew chief.	
I have read the Cultural Resource Program Orientat procedures stated in it.	ion Manual and understand the rules and
Crew member signature	Date

APPENDIX H

FIELD AND LABORATORY FORMS

This Appendix includes:

- Shovel Test Transect Survey Forms
- Test Excavation Unit Forms
- Photo Log Form
- Archaeological Site Monitoring Form
- New York State Site Forms
- Artifact Catalog Form and Soil Sample Tracking

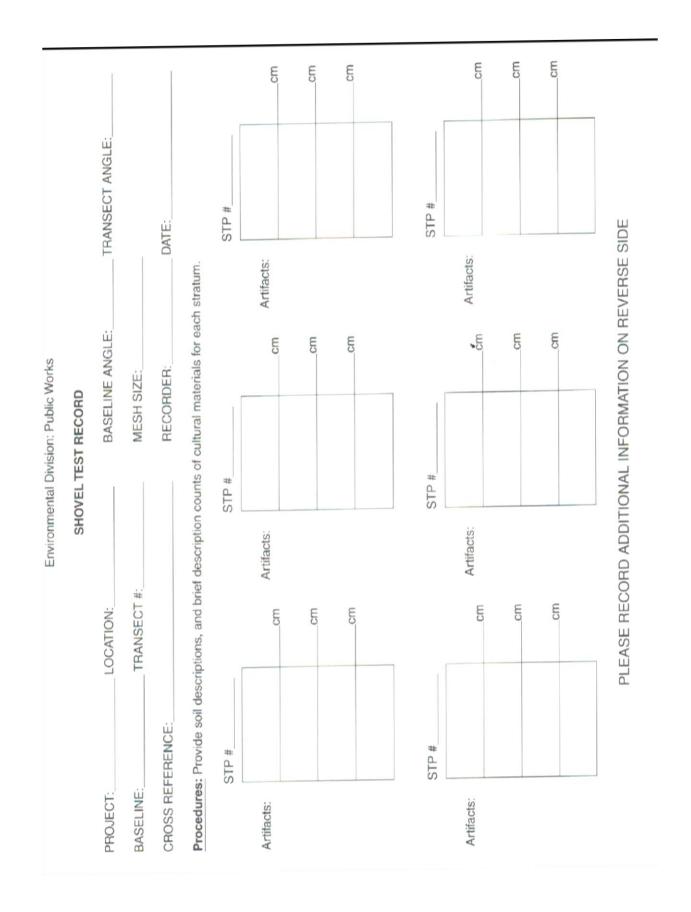
Project Number	Date	_
Baseline Number		

Comments

Transects	STPS
1.	
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33.	

Transect Status Record Cultural Resource Survey

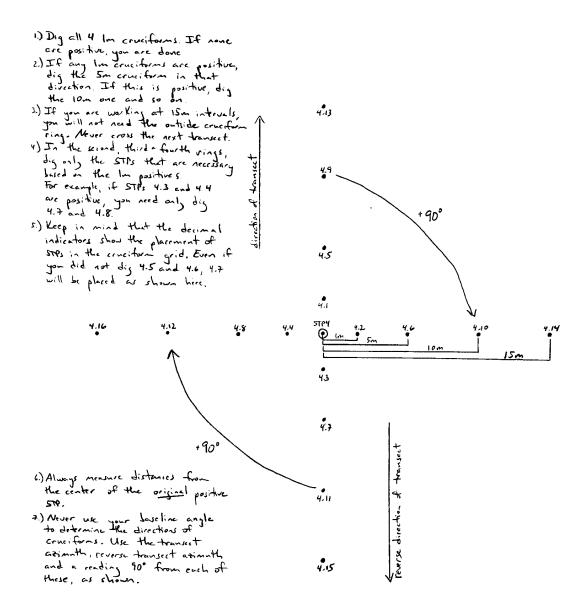
Project:	Date:
Project Name:	Recorder:
TA/Baseline:	
Transect:	
Team:	Comments:
STPs attempted:	w/o:
STPs written off:STPs positive:	pos:
	pwo:
Transect:	
Team:	Comments:
STPs attempted:STPs completed:	w/o:
STPs written off: STPs positive:	pos:
	pwo:
Transect: Team:	Comments:
STPs attempted:STPs completed:	w/o:
STPs written off: STPs positive:	pos:
	pwo:
Transect:	
Team:	Comments:
STPs attempted:STPs completed:	w/o:
STPs written off: STPs positive:	pos:
5.1. o pos	pwo:



41 cm 등 E E ED-TRANSECT ANGLE: 36 Impass gravel Fill 184R 311 JOYR 4/3 3 ROOT LACE _ STP# STP# DATE PLEASE RECORD ADDITIONAL INFORMATION ON REVERSE SIDE Artifacts: Artifacts: CROSS REFERENCE: Υραν Crew chilef will letylou RECORDER: A. Wood

| Lynow when to USe + nis
| Procedures: Provide soil descriptions and brief description counts of cultural materials for each stratum. BASELINE ANGLE: 1060 רטאו טאטו אטטיבו טעער נטאט ויטרער ד Environmental Division; Public Works 19 cm 32 cm 51 cm 띩 ಕ್ರ E <u>৭</u> MESH SIZE: SHOVEL TEST RECORD CLAT SUBSOIL 100 R 5/6 104R 3/4 loyk sli 104R 4/2 STP#_ STP# 1 present PROJECT: 2004.006 LOCATION: TA 12D debitage flakes le pieces Artifacts: Schort Artifacts: TRANSECT #: 75 cm 20 cm UO CM E5 E E 102 CLAY SUBSOIL 104 P 3 14 104 65/4 1046 3/1 104/8 3/2 2 S STP#_ STP# Do Hicglass BASELINE Artifacts: Artifacts: 2 pied debitage

Cruciforn Protocol



60	ATION CRUCIFORM INFO	DATE RECORDER	ARTIFACTS STP # ARTIFACTS ARTIFACTS	
ENVIRONMENTAL DIVISION: PUBLIC WORKS	CRUCIFORM SHOVEL TESTS ION ORIGINAL SHOVEL TEST INFORMATION	TRANSECT #: STP #: TRANSECT ANGLE: ORIGINAL RECORDER: DATE OF EXCAVATION:	ARTIFACTS STP # ARTIFACTS ARTIFACTS	
EN	ORIGINAL PROJECT INFORMATION	PROJECT: LOCATION BASELINE #: BASELINE ANGLE:	ARTIFACTS STP # ARTIFACTS ARTIFACTS	

Artifact Bag Label

Project # TA	Project # TA
Project Name	Project Name
BL#TR#STP#L	BL#TR#STP#L
Date Excavators	Date Excavators
Contents	Contents
Project # TA	Project # TA
Project Name	Project Name
BL # TR # STP # L	BL#TR#STP#L
Date Excavators	Date Excavators
Contents	Contents
Project # TA Project Name	Project # TA Project Name
BL # TR # STP # L	BL# TR# STP#L
DateExcavators	Date Excavators
Contents	Contents
Project # TA	Project # TA
Project Name	Project Name
BL#TR#STP#L	BL#TR#STP#L
Date Excavators	Date Excavators
Contents	Contents

Phase II UNIT/LEVEL AND FEATURE FORMS Cultural Resources Survey

Project Identifier:	Training Range/Area:
Ft. Drum Site Identifier:	Excavating Team:
State Site Identilier:	Date of Excavation:
Unit Datum Coordinates: E: N:	Site Datum Coordinates: E: N:
Azimuth (SW Corner → NW Corner):	
Location of Unit Datum:	
Unit: Size of Unit:	Level:
Excavation Method: Shovel Skim: Screen (1/8" mesh) Arbitrary Level (10c	Level: Level: Trowel: Screen (1/4" mesh): : Natural Level: sm.):
Beginning Depths: SW: SE: Ending Depths: SW: SE: Depth Range:	C: NW: NE:
Soil Description: Munsell: Color:	Texture:
Photo(s): Camera #: Frames:	
Maps: Planview: Profile:	
Descriptions of Material Recovered:	
Prehistoric Artifacts	Historic Artifacts Floral Faunal
1:1:2:	1:
3:3:	3: 3:
4: 4:	4: 4: 4:
5: 5:	5: 5:
5:5:6:6:	6: 6:
7:7:	7:7:
8:8:	8: 8:
9: 9:	9:9:
Soil Samples(flotation): #of bags C-14 Samples(1.7g-30g): #of bags Material Discarded or Sampled:1:	_ Weight(s): 1: 2: 3: 4: Weight(s): 1: 2: 3: 4:
Comments/Descriptions:	

FEATURES OF LEVEL

Feature number	Munsell/ Texture	Shape	Length/ Width	Elevation	Bisected Y/N	Material Recovered	Samples Taken Type/Size	Photos Camera/Frame
1	Texture		vviatri		17/19	Recovered	Type/Size	Camera/Frame
2								
3								
4								,
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
Comme	nts/Descri	ption:						

Comments/Description:	

Test Unit Artfact Bag Labels

Project #	TA		Project #		
Project Name			Project Name		
TU#L_	FEA #	BD	TU#L_	FEA #	BD
Date	_ Excavators		Date	Excavators	
Contents			Contents		
Project #	TA		Project #	TA	
Project Name			Project Name		
TU#L_	FEA #	BD	TU#L_		
Date	_ Excavators		Date	_ Excavators	
Contents			Contents		
Project #	TA	_	Project #	TA	
Project Name			Project Name		
TU#L_			TU#L_	FEA #	BD
Date	Excavators		Date	_ Excavators	
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CRS PHOTOGRAPH LOG

Pre	oject #		CAMERA					
EXP#	DESCRIPTION	SITE #	PROJECT #	UNIT #	T.A.	FACING	DATE	INITIALS
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Fort Drum Site Monitoring Form

Project Identifier: 20	20.		Train	Training Range/Area:			
Ft. Drum Site Identif							
Monitor(s):			Date:				

Site Coordinates:	E:			New GPS per	imeter? Yes	No	
Site Coordinates: (Datum)	N:		_				
(7.112 <u> </u>		-				
Site Condition Asse	ssment (If other is	chosen plea	se describe be	ow)		
					97500 0 4 0.		
Surface Erosion Military Impact		Vehicle	Other				
Animal Caused Distr	urbance	Yes	No				
Natural Impact					•		
Vandalism		Ves	No		3		
Other		1 05	110				
Other							
Dans this site house		aatiwa maa	annaa in ni	aca? (Diagga al	sook all that appl	•••	
Does this site have a						у)	
Plantings?		Physical	barriers?	Off	mints signs:		
Siber Stakes?							
Evaluate effectiven	ess:						
Were any protective Planting Does this site require	Fix sign	ns	Repair ba	arriers		signs	
Does site condition	requite :	a visit fron	the Cultu	ral Resources	manager? Yes	No	
Artifacts Collected	or Noted	d:					
Photos: Taken from	aantar o	faita in fau	r cordinal s	livations			
r notos. Taken mom	center 0	i site ili iou	i cardinal C	meetions			
N. Comero:	Frame		S. Ca	mera:	Frame:		
N: Camera: E: Camera:	Frame		W. C	omara:	Frame:	-	
E: Camera:	Frame:	-	w. C	amera	riame	-	
Photos of Disturba	nce: Car	nera:	Frame	(s):			
Comments:							

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

For Office Use OnlyState Identifier	
Project Identifier:	Date:
Name: Cultural Resources Manager Address: 85 First Street West Ft. Drum, NY 13602-5097	Phone:
Organization: Cultural Resources Section, Public Wo	<u>ITKS</u>
1. Site Identifier:	One of the Following: City:
Incorporated \	vnship:
Unincorporated Village or	Hamlet:
3. Present Owner:Address:	
4. Site Description (check all appropriate categories): Structure/site: Superstructure: complete partial colla Foundation: above below (ground level) Structural subdivisions: apparent only sur Construction materials:	apsed not evident not evident from not evident from traces detected from
Grounds: under cultivation never cultivated previously cultivated sustaining erosion	floodplain woodland pastureland upland
Soil Drainage: excellent good fair poor Slope: flat gentle moderate steep	
Distance to nearest water source from site:	
5. Site Investigation (append additional sheets if necessurface: date(s) (submit with form)	essary)
Collection: date	
Testing: shovel corning unit size other number of units (submit plan of	In funits with form)
Excavation: unit size number of units	(submit plan of units with form)
Collection:	

Manuscript or published report(s):		
Present repository of materials:		
Site Inventory (append sheets if necessary): a. date constructed or occupation period b. previous owners (if known) c. modifications, if known		
7. Site documentation (append sheets if necessing a. Historic references (originals) 1) Name Present location of original (if known)	300	Source
2) Name	Date	Source
Present location of original (if known) 3) Name	Date	Source
1) Photo date Location		
d. Persons with memory of site:		
2) Name	Address	
List of material remains other than those use object and material:		
If prehistoric materials are evident, chec	k here and	fill out prehistoric site inventory form.
9. Map references: Map(s) showing exact location be identified by source and date. If feasible keeps to the source and date.	ion and exte	nt of site must accompany this form and must
USGS 7.5 Minute Series Quad. Name:		Year:
For Office Use OnlyUTM coor	dinates:	
10. Photography (optional for Environmental Im-	pact survey)	: Submit 5" x 7" black and white print(s)

10. Photography (optional for Environmental Impact survey): Submit 5" x 7" black and white print(s) showing the current state of the site. Provide a label for the photograph on a separate sheet of paper.

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

For office use only—Site Identifier:	
Project Identifier: Name: Cultural Resources Section Address: Public Works 85 First Street West Fort Drum, New York 13602-5097	Date:Phone: 315-772-4165
Site Identifier:	_
2. County:Incorp	One of the Following City: Township: porated Village: ed Village or Hamlet:
3. Present Owner: US ARMY Address: (see above)	ed vinage of Haimet.
4. Site Description (Check all appropriate categories Site: Stray (isolated) FindCave/Rockshelt	erWorkshopMoundVillageStratified eMulticomponentEvidence of Features
Location: Under CultivationWoodlandNever CultivatedUplandPreviously CultivatedLowlandNon-agricultural Disturbance Soil Drainage: ExcellentGoodFairF Slope: FlatGentleModerateSteepF	Sustaining Erosion Sand Dune (Hogback) Bluff Floodplain
Distance (approx.) to nearest water from site: Elevation:ft AMSL	
5. Site Investigation (append additional sheets, if r	necessary)

SurfaceDate
Site Map (submit with form)
Collection: Fort Drum Artifact Curation Facility, Bldg. T-4836
Subsurface Date(s):
Subsurface Date(s): Other
Unit Size: Number of Units (*submit unit plan with form)
Excavation: Unit size# of units(*submit unit plan with form)
*Submission should be 8 ½ x 11, if feasible
Collection: Fort Drum Artifact Curation Facility, Bldg. T-4836
Investigator:
Relevant manuscript or published report(s) (reference fully):
Present repository of materials: Fort Drum Artifact Curation Facility, Bldg. T-4836 6. Component(s) (cultural affiliation/dates):
7. List of materials remains (be specific in identification of object and material): NOTE: If historic materials are evident, check here and fill out historic site form
8. Map References: Map or maps showing exact location and extent of site must accompany this form and must be identified by source and date. Keep this submission to 8 ½" x 11", if feasible. USGS 7 ½ minute series Quad Name: Year:
For Office Use Only—UTM Coordinates:
9. Photography (optional for environmental impact survey): Please submit a 5" x 7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.

REMARKS ATTRIBUTE V QUAN. I ATTRIBUTE III ATTRIBUTE IV O Artifact Catalog Sheet Project Site Number ATTRIBUTE II ш Attribute I ۵ Period ပ Provenience B Accession # A

Entered in Computer By Date

Cataloged By Date

