Closed, Transferring and Transferred Range/Site Inventory Report

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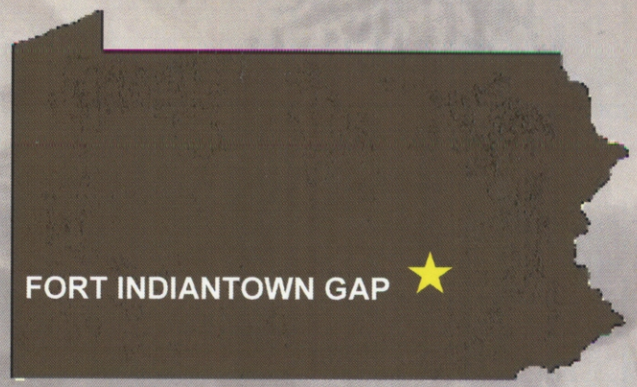
Fort Indiantown Gap, PENNSYLVANIA

U.S. Army National Guard Bureau (NGB)



October 2003

MALCOLM PIRNIE

Final CTT Inventory Report

U.S. Army Corps of Engineers

FINAL

U.S. ARMY CLOSED, TRANSFERRING and TRANSFERRED RANGE/SITE INVENTORY

for

FORT INDIANTOWN GAP, PA

24 October 2003

Prepared for

U.S. Army Environmental Center
and
U.S. Army Corps of Engineers,
Baltimore District

Prepared by

Malcolm Pirnie, Inc.
300 East Lombard Street, Suite 610
Baltimore, MD 21202

ABBREVIATIONS / ACRONYMS

AEC	Army Environmental Center
A/I	Active/Inactive
APG	Aberdeen Proving Grounds
ARID	Army Range Inventory Database
ARNG	Army National Guard
ARS	Advance Range Survey
ASR	Archive Search Report
BRAC	Base Realignment and Closure
CADD	Computer Aided Drafting and Design
CTC	Cost to Complete
CTT	Closed/Transferring/Transferred
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DMM	Discarded Military Munitions
DoD	Department of Defense
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
DOE	Department of Energy
DSERTS	Defense Site Environmental Restoration Tracking System
EOD	Explosive Ordnance Disposal
FFID	Federal Facility Identification
FUDS	Formerly Used Defense Site
FY	Fiscal Year
GIS	Geographic Information System
IR	Installation Restoration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
LPA	Limited Public Access
LTM	Long Term Monitoring
MACOM	Major Command
MC	Munitions Constituents
MMRP	Military Munitions Response Program
MR	Munitions Response
N/A	Not Applicable
NGB	National Guard Bureau
NPA	No Public Access
OB	Open Burn
OD	Open Detonation
PA	Preliminary Assessment
PM	Project Manager
POC	Point of Contact
QA	Quality Assurance
QC	Quality Control
RAC	Risk Assessment Code
RAO	Remedial Action (Operations)
RC	Response Complete
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy in Place

ABBREVIATIONS / ACRONYMS

RMIS	Restoration Management Information System
RPA	Restricted Public Access
SI	Site Inspection
STARC	State Area Command
TIC	Technical Information Center
UPA	Unrestricted Public Access
U.S.	United States
USACE	United States Army Corps of Engineers
USARC	United States Army Reserve Command
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
UXO	Unexploded Ordnance
WMM	Waste Military Munitions

Site Specific Acronyms

Mt. = Mount
PAARNG = Pennsylvania Army National Guard
PNG = Pennsylvania National Guard
USGS = U.S. Geological Survey
WP = White Phosphorus

EXECUTIVE SUMMARY

Purpose of the Closed, Transferring, and Transferred Inventory

To meet immediate, short-term, and long-term needs, the United States (U.S.) Army is conducting its range inventory in three phases. The first phase (Phase 1) involved a data call issued to each U.S. Army Major Command (MACOM) requesting general information about ranges on their installations. This phase was also referred to as the Advance Range Survey (ARS). The ARS allowed the Army to meet its immediate needs; however, a more detailed inventory was necessary. The Army decided to divide the detailed follow-on inventory into two parts, an active and inactive (A/I) inventory (Phase 2) and a closed, transferring, and transferred (CTT) inventory (Phase 3).

The results of the Phase 2 inventory for the installation were documented in an A/I range inventory binder submitted to the Army Environmental Center (AEC), the respective MACOM, and the installation. The Phase 2 binder contains maps that delineate the A/I range boundaries. The remainder of the property inside the installation's boundary is designated as non-A/I property by default. If the Phase 2 inventory was conducted at an installation, the data was provided to the Phase 3 team prior to starting the data collection effort.

This Phase 3 inventory began as an inventory of just Army CTT ranges. However, as a result of the congressional requirements outlined in the Defense Authorization Act of 2002 (Public law 107-107) and resultant changes to the Defense Environmental Restoration Program (DERP), the Phase 3 Inventory is a comprehensive history of both CTT ranges and other CTT sites with unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). All locations previously or currently owned, leased or possessed by the Department of Defense (DoD) (except those currently classified as A/I ranges or permitted military munitions treatment and/or disposal facilities) are included in this inventory. The U.S. Army Corps of Engineers (USACE) is the predominant executor of the Phase 3 inventory. The inventory specifically focused on the non-A/I areas as defined in Phase 2 and areas around the installation that may have been used in the past for munitions-related testing, training, or disposal.

Specific requirements of the Phase 3 inventory include: 1) mapping the CTT ranges and sites with UXO, DMM,or MC; 2) collecting and preparing data to be uploaded into the Army Range Inventory Database (ARID); 3) conducting an assessment of explosives safety risk using the Risk Assessment Code (RAC) methodology for each CTT range or site with UXO or DMM identified in the inventory; and 4) determining which sites on the inventory potentially qualify for the Military Munitions Response Program (MMRP).

The data collection portion of the CTT inventory at Fort Indiantown Gap was conducted on September 24th and 25th, 2002. While on site, the data collection team reviewed historical records and interviewed installation personnel concerning

potential CTT ranges, disposal areas, and other UXO, DMM, or MC sites. This report summarizes the CTT inventory conducted at Fort Indiantown Gap and presents the results.

Purpose of the Range Inventory Report

The purpose of this report is to present the results of the Phase 3 CTT inventory. The report includes individual CTT map(s) for the installation, a copy of the data tables that will be submitted electronically to AEC for uploading into the ARID, completed RAC worksheets for all CTT ranges and sites with UXO or DMM, DERP eligibility determination, and identification of which ranges/sites potentially qualify for the MMRP. Although the inventory did not require exhaustive archive searches to be performed, it did require historical research to identify sites subject to this inventory, locations, periods of use, the types of munitions used, and other specific information regarding the site. The majority of this data was obtained by reviewing installation records and interviewing personnel at, or involved with, the installation. Although the data presented in this report is believed to be accurate, it has not been verified by field sampling.

Summary of Results

Fort Indiantown Gap occupies approximately 17,100 acres, 14,939 of which are classified as A/I range (from Phase 2). The Phase 3 inventory identified six transferred ranges totaling 10,525-acres. Two of the transferred ranges just north of the installation include the "Artillery Ricochet Area" and the "Cold Spring Range Fan". The remaining four transferred ranges are located approximately 15-miles south of the installation in Mount (Mt.) Gretna, Pennsylvania. Mt. Gretna is the original site of Fort Indiantown Gap. An artillery range, machine gun range, pistol range, and rifle range were identified at Mt. Gretna.

As part of the inventory, the data collection team performed an assessment of explosives safety risk using the RAC process for each range and site with UXO and DMM in the inventory. The RAC process requires the completion of a worksheet that consists of a series of questions regarding the area. Based on the results of the worksheet, a relative overall score (RAC score) for each area is assigned. The RAC score is an estimate of the relative explosives safety risk, which is reported as a number from 1 (high explosives safety risk) to 5 (negligible explosives safety risk).

The results of the Phase 3 inventory for this installation are summarized in Table ES-1 on the following page.

Table ES-1: CTT Range and Site

Installation Name	Range / Site Name	Classification	Total Area (Acres)	Munitions Constituents	RAC [1] Score	DERP Eligibility
FORT INDIANTOWN GAP - ARNG	ARTILLERY RICOCHET AREA	TRANSFERRED	9122	Unknown	3	MR
Munitions Type(s)	LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY) LARGE CALIBER (37MM AND LARGER), HE LARGE CALIBER (37MM AND LARGER), PRACTICE MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE) MORTARS, HE MORTARS, PRACTICE					
FORT INDIANTOWN GAP - ARNG	COLD SPRING RANGE FAN	TRANSFERRED	1231	Unknown	3	MR
Munitions Type(s)	LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY) LARGE CALIBER (37MM AND LARGER), HE LARGE CALIBER (37MM AND LARGER), PRACTICE MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE) MORTARS, HE MORTARS, PRACTICE					
FORT INDIANTOWN GAP - ARNG	MT. GRETNA ARTILLERY RANGE	TRANSFERRED	119	Unknown	2	MR
Munitions Type(s)	LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY) LARGE CALIBER (37MM AND LARGER), HE LARGE CALIBER (37MM AND LARGER), PRACTICE MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE) MORTARS, HE MORTARS, PRACTICE					
FORT INDIANTOWN GAP - ARNG	MT. GRETNA MACHINE GUN RANGE	TRANSFERRED	1	Unknown	5	MR
Munitions Type(s)	SMALL ARMS					
FORT INDIANTOWN GAP - ARNG	MT. GRETNA PISTOL RANGE	TRANSFERRED	2	Unknown	5	MR
Munitions Type(s)	SMALL ARMS					
FORT INDIANTOWN GAP - ARNG	MT. GRETNA RIFLE RANGE	TRANSFERRED	50	Unknown	5	MR
Munitions Type(s)	SMALL ARMS					

[1] "0" indicates that the site is a Munitions Constituent (MC) site and therefore, RAC scores have not been prepared.

Note: A TD at the end of the Range/Site name indicates a Transferred portion of a site. If a site extends past the installation boundary and is therefore identified as transferred, that transferred portion is given the same name as the site within the installation boundary and a "TD" is added to the end to indicate that it has been identified as transferred.

A. INTRODUCTION

The United States (U.S.) Army is in the process of inventorying all of its past and current ranges to support its Range Sustainment Program and the Military Munitions Response Program (MMRP). The Army is conducting the inventory in three phases. The first and second phases only address properties meeting the definition of a range. The third and final phase is an inventory of closed, transferring and transferred (CTT) ranges and sites with unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC). Both ranges and other sites with explosive hazards, such as UXO or munitions disposal areas, are included.

This report documents the results of the CTT Range and Site inventory for Fort Indiantown Gap located in Lebanon and Dauphin Counties, Pennsylvania.

Background

To meet immediate, short-term, and long-term needs, the Army is conducting its range inventory program in three phases. The first phase (Phase 1) involved a data call issued through the Army Environmental Center (AEC) requesting general information about ranges on various installations under each U.S. Army Major Command (MACOM). The Phase 1 inventory was conducted using a questionnaire called the Advance Range Survey (ARS). The ARS allowed the Army to meet the short-term data goal of supporting the Department of Defense's (DoD) preparation of Senate Report 106-50.

The Phase 1 inventory for Fort Indiantown Gap was completed in November 2000. The point of contact (POC) listed in the ARS database is Major Michael Tompkins, Range Officer. The ARS identified no CTT ranges for Fort Indiantown Gap.

The ARS allowed the Army to meet its short-term needs; however, the Army's long-term needs required a more detailed inventory of its ranges that was not achievable based on the information in the ARS. For management and budgetary reasons, the Army divided the detailed follow-on inventory into two phases. The Phase 2 inventory addressed active and inactive (A/I) ranges (operational ranges), while Phase 3 covers CTT ranges and sites with UXO, DMM, or MC.

The Phase 2 inventory for Fort Indiantown Gap was conducted in early 2002 by AEC. The results were documented in an A/I range inventory binder that was submitted to Fort Indiantown Gap and the National Guard Bureau (NGB). The Phase 2 binder contains maps that delineate the A/I range boundaries. The remainder of the property inside the installation's boundary is designated as non-A/I property by default. As part of the effort, the inventory data was electronically uploaded into the Army Range Inventory Database (ARID) maintained by AEC. The Phase 2 maps and relevant data were provided to the Phase 3 team prior to their visit to Fort Indiantown Gap and were used to aid the Phase 3 CTT data collection. The results from the Phase 2 inventory (A/I areas and acreage totals) are included on the Phase 3 maps and described in the

report, where applicable, to provide the reader with a snap shot of the entire range area associated with Fort Indiantown Gap. The reader should refer to the Phase 2 range binder for specifics on the A/I Range Inventory.

This Phase 3 inventory includes all CTT ranges and UXO, DMM, and MC sites that are currently or have been owned, leased, or operated by the Army or DoD. Properties currently classified as A/I ranges or permitted military munitions treatment and/or disposal facilities are excluded from the Phase 3 inventory. Closed ranges and sites are no longer in use, but are still located on Army property. Transferred ranges and sites are no longer in use and are located on property that is no longer under military control. Transferred ranges that qualify for the Formerly Used Defense Site (FUDS) program are not included in the Phase 3 inventory. However, transferred sites that qualify for FUDS, but are not on the FUDS docket, and transferred sites that do not qualify for FUDS (transferred after 1986) are included in this inventory. A range or site is referred to as "transferring" if it is no longer used and is proposed for imminent release from military control.

A site visit to Fort Indiantown Gap was made on September 24 and 25, 2002. While on site, the data collection team reviewed historical records and interviewed knowledgeable installation personnel. The Phase 3 inventory is specifically focused on the non-A/I range areas, as defined in the Phase 2 inventory, and on areas surrounding the installation that may have been used in the past for munitions-related disposal, testing, or training.

The inventory itself represents a summary or "snap shot" in time of the areas associated with the U.S. Army's munitions disposal, training, and testing and should be updated as the Army changes how it uses training ranges or gathers additional data over time.

Project Drivers

There are several drivers for the Phase 3 inventory, including the Defense Environmental Restoration Program (DERP), as amended by the Defense Authorization Act of 2002 (Public Law 107-107, signed into law January 2002); federal financial accounting standards; and DoD guidance. The most important driver is the DERP. DERP requires that an "inventory of defense sites that are known or suspected to contain UXO, DMM, or MC" be conducted and completed by May 31, 2003. The revised Management Guidance for the DERP (September, 2001) created the MMRP and outlines the specific program requirements for the CTT inventory. Federal financial accounting standards require DoD to estimate the cost of cleaning up sites under the MMRP and report this cost in its annual financial statements. A complete inventory of CTT ranges and other sites with UXO, DMM and MC will ensure that future financial reporting estimates are defensible and supported by accurate data.

Report Objectives

The objective of this report is to present the results of the CTT inventory for this installation. Although this assignment did not require that an exhaustive archive search be performed, it did require historic research to identify CTT ranges and sites subject to this inventory, and the locations, periods of use, and associated types of UXO, DMM, or MC. The majority of this data was obtained by reviewing installation records and interviewing personnel at, or involved with, the installation. Although the data presented in this report is believed to be accurate, it has not been verified by field sampling.

Project Participants

AEC is the Program Manager for the Army's CTT inventory. AEC provides overall management and guidance, identifies significant issues, develops and maintains the Army Range Inventory Database (ARID), defines achievable schedules and milestones, coordinates with relevant U.S. Army organizations, and reports on the inventory's status. The Project Manager (PM) for AEC is Ms. Mary Ellen Maly.

The U.S. Army Corps of Engineers (USACE) is the executing organization for Phase 3 and was responsible for conducting the record searches; gathering, compiling, and validating data; and submitting the validated data to AEC in the specified file formats. USACE Baltimore District was responsible for completing the Phase 3 inventory for this installation. The PM for USACE Baltimore is Ms. Ann Wood.

Malcolm Pirnie, Inc., under contract with the USACE Baltimore District, provided personnel to help the USACE collect and analyze inventory data and to document the results. The data collection team leader for the Fort Indiantown Gap CTT inventory was Mr. Jonathan Sperka.

Fort Indiantown Gap personnel were contacted and interviewed as part of the CTT inventory. Mr. John Fronko, Environmental Planning Supervisor, was the primary POC during the site visit and initial data collection effort. Mr. Tony Hassler, Environmental Compliance Officer, has since assumed the position of primary POC for Fort Indiantown Gap.

B. DEFINITIONS AND DATA REQUIREMENTS

Before the results of the inventory can be presented, it is helpful for the reader to have an understanding of the definitions and data requirements associated with the inventory. This section defines the terms used in this report and the data requirements established by the Army.

Inventory Definitions

The following definitions are applicable to the Army's Range Inventory Program.

Defense Site: Locations that are or were owned by, leased to, or otherwise possessed or used by DoD. Does not include: operational ranges, operating storage or manufacturing facilities or facilities that are or were permitted for the treatment or disposal of military munitions.

Military Munitions: All ammunition products and components produced or used by or for the DoD or the U.S. Armed Services for national defense and security, including military munitions under the control of the DoD, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, and mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include nonnuclear components of nuclear devices, managed under DOE's nuclear weapons program, after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

Discarded Military Munitions (DMM): Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage facility for the purpose of disposal. Does not include: UXO or military munitions that are being held for use or planned disposal or that have been disposed of properly.

Unexploded Ordnance (UXO): Military munitions that have been primed, fused, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or

	material; and remain unexploded either by malfunction, design, or any other cause.
Munitions Constituents (MC):	Any materials that originate from UXO, DMM or other military munitions, including explosive and non-explosive materials, and emission, degradation or breakdown elements of such ordnance or military munitions.
Military Range:	A designated land or water area set aside, managed and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.
Active Range:	A military range that is currently in service and is being regularly used for range activities. For the purposes of the inventory, "in service" is defined as currently in operation, construction, maintenance, renovation, or reconfiguration to meet current Army training and/or test requirements. An active range qualifies as an operational range.
Inactive Range:	A military range that is not currently being used, but that is still considered by the Army to be a potential range area, and that has not been put to a new use that is incompatible with range activities. An inactive range qualifies as an operational range.
Closed Range:	A military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a DoD component. Closed ranges cannot occupy an area that has been identified as an A/I range. Closed ranges are those areas of land that used to be operational, are still owned by the Army, but are now used for non-range purposes.
Transferred Range:	A military range that is no longer under military control and had been leased, transferred, or returned by DoD to another entity, including Federal entities. This includes a military range that is no longer under military control, but that was once used by the Army. This includes use under the terms of an executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the Federal land manager.

Transferring Range:	A military range that is proposed to be leased, transferred, or returned by the DoD to another entity, including federal entities. This includes a military range that is used under the terms of a withdrawal, executive order, special-use permit or authorization, right of way, public land order, or other instrument issued by the federal land manager or property owner. A range will not be considered a "transferring range" until the transfer is imminent.
Operational Range:	A military range that is currently in service and is being regularly used for range activities, or a military range that is not currently used, but that is still considered by the Military to be a potential range area, and that has not been put to a new use that is incompatible with range activities. Active and inactive ranges qualify as operational ranges.
Base Realignment and Closure (BRAC):	A DoD program that focuses on compliance and cleanup efforts at military installations undergoing closure or realignment, as authorized by Congress in four rounds of base closures for 1988, 1991, 1993, and 1995. A BRAC parcel is eligible for the MMRP if the release occurred prior to September 30, 2002; the release is not an operational range, FUDS, active munitions demilitarization facility, or active waste military munitions (WMM) treatment or disposal unit that operated after September 30, 2002; and the site was not identified or included in the Restoration Management Information System (RMIS) prior to September 30, 2002.
Formerly Used Defense Site (FUDS):	A DoD program that focuses on compliance and cleanup efforts at sites that were formerly used by the DoD. A property is eligible for the FUDS program if the release occurred prior to October 17, 1986; the property was transferred from DoD control prior to October 17, 1986; and the property or project meets other FUDS eligibility criteria.
Restoration Management Information System (RMIS) Site:	A site included in the DoD's RMIS database. Includes any building, structure, impoundment, landfill, storage container, or other site or area where a hazardous substance was or has come to be located. Installations and ranges may have more than one RMIS site. The RMIS is used to track DoD sites under the DERP.
DSERTS Site:	A site included in the Army's Defense Site Environmental Restoration Tracking System (DSERTS) database. DSERTS is the database the Army uses to track Installation Restoration Program (IRP) sites under DERP.

Inventory Data Requirements

The goal of the inventory was to identify locations, periods of use, and types of munitions used on CTT ranges and sites with UXO, DMM or MC associated with the installation. Specific inventory data requirements included: 1) mapping out the CTT ranges and sites with UXO, DMM and MC, 2) collecting and preparing data to be uploaded into the ARID, 3) conducting an assessment of explosives safety risk using the Risk Assessment Code (RAC) methodology for each CTT range and UXO and DMM site identified in the inventory, and 4) determining which sites in the inventory qualify for the MMRP. Data requirements for range and site maps, ARID, and the RAC methodology are described below.

Range and Site Map Requirements

A CTT range and site map (or multiple maps depending on the specific installation) was generated for the CTT inventory of the installation. The map shows all the ranges and sites associated with the installation, including the A/I range areas (from Phase 2); closed, transferred, and transferring ranges and sites; and the non-range, UXO, DMM, and MC sites. The range and site map is provided in section E. Based on data collected and site conditions, multiple maps may be included in section E. An electronic version (.pdf file) of the map has been provided as an upload to ARID.

ARID Data Requirements

The CTT inventory data is driven by the requirements of ARID. The ARID Upload Instructions (14 January 2003) describe the minimum data elements required for completing the range inventory. According to the instructions, the following files are required for the inventory:

- Points of Contact
- Installation
- Range
- Munitions
- Ownership
- Land Use Restrictions and Access Controls
- Range Demographics
- Map
- RMIS Site Information
- DSERTS Site Information

A printed copy of each file submitted to ARID is provided in Section F.

Risk Assessment Code Methodology

The inventory team was required to perform an explosives safety risk assessment on each CTT range and UXO or DMM site identified during the inventory using the RAC methodology. RAC scores are not calculated for MC only sites. The RAC methodology is a process that the USACE designed to evaluate the relative explosives safety risk associated with past ordnance-related disposal, testing or training. The RAC score assists in prioritizing and sequencing projects. The RAC process is described in Appendix B of USACE Engineering Pamphlet 1110-1-18, Ordnance and Explosive Response (24 April 2000) and referenced in the updated management guidance for the DERP. The analysis involves a worksheet that, when completed, assigns a relative score (RAC score) to the sites. The RAC score is a number ranging from 1 (highest explosives safety risk) to 5 (negligible explosives safety risk). A summary of the calculated RAC scores and the completed RAC worksheets are included in Tab G.

DERP Eligibility Determination

The inventory team was required to determine the DERP eligibility of each range and site included in the inventory. This was done to ensure that ranges/sites are not double counted if already included under the IRP. It is also performed to ensure only ranges with UXO, DMM, or MC that meet the requirements identified in the DERP Management Guidance, September 01, are included in the MMRP. Results of the DERP eligibility determination include IRP, MMRP, or other (not eligible). To make this determination the following must be considered (when applicable):

- Whether or not the site has a DSERTS Site ID,
- Whether or not the current DSERTS cost to complete (CTC) includes a response to all UXO, DMM, and MC,
- Whether or not the DSERTS site has a BRAC UXO flag, and
- Whether or not the DSERTS site is listed as response complete (RC) because of ineligibility of funding due to UXO or munitions, where applicable.

After determining whether or not the ranges and/or sites (including their associated UXO, DMM, and MC aspects) are currently covered under the IRP, it must be determined if the range/site is eligible for the MMRP. If the range/site is not currently covered under IRP and not eligible for the MMRP, it should be classified as "other." As appropriate based on the eligibility determination, RMIS range ID and RMIS site ID numbers are then assigned.

C. INSTALLATION SUMMARY

This section provides a brief summary of the history of the installation and a summary of the data collection portion of the CTT inventory, including the types of records reviewed and personnel contacted.

Installation Overview and Description

The Pennsylvania Army National Guard (PAARNG) moved into the Indiantown Gap area of Pennsylvania in 1885, when it obtained 120 acres west of the Mount (Mt.) Gretna park area. The land was used for summer encampment for approximately 50 years and was known as Camp Gobin, Camp Winfield Scott Hancock, and then as Mt. Gretna. The camp trained soldiers for the Spanish-American War in 1898. In 1903, the camp became a permanent training camp because of its usefulness and its status as the only camp in Pennsylvania which had not experienced outbreaks of typhoid or yellow fever. Due to the site's proximity to public camping grounds, the camp was moved approximately 15 miles north to its current location in 1931. Mt. Gretna is classified as a transferred property because the land is no longer owned or controlled by the Army. It was evaluated in this report because, while it might qualify for the FUDS program, it is not currently in the program.

In 1931 the Commonwealth of Pennsylvania purchased approximately 18,000 acres 23 miles east of Harrisburg, Pennsylvania for its new camp. In 1940, Pennsylvania leased this area of Indiantown Gap to the Federal Government for $1 a year. The Indiantown Gap Military Reservation, established in 1941, became a training area for several units. Initially it functioned as the training facility for the 28th Infantry Division of the PAARNG. In 1942, the installation came under the command of the New York Port of Embarkation as the staging area for troops preparing for transport overseas. From July 1942 until the end of World War II, it supported the Transportation Corps Training Center. The 55th Infantry Brigade, the 53rd Field Artillery, the 52nd Cavalry Brigade, and the 109th Infantry all trained there. In addition to its role as a training center, Indiantown Gap Military Reservation was a prisoner of war camp for captured German soldiers. Between 1946 and 1951, Indiantown Gap Military Reservation was deactivated to housekeeping status. In 1951, it was reactivated to training camp status during the Korean conflict. In 1953, the installation was placed on inactive status and returned to the Pennsylvania Military District. Between 1957 and 1968, the XXI U.S. Army Corps oversaw an Army Reserve Program on site. The installation officially became Fort Indiantown Gap in 1975 and served as a refugee resettlement camp. In 1983, Fort Indiantown Gap became a sub-post of Fort George G. Meade in Maryland. In 1993, it became a sub-post of Fort Drum in New York.

As part of the 1995 Base Realignment and Closure (BRAC) program, active duty activities were terminated at Fort Indiantown Gap in 1998 when it became a National Guard and Army Reserves training center. As a part of the BRAC

review process, the government and the Commonwealth mutually determined that 567.5 acres, consisting of Range E-1 (412.1 acres), Cloverleaf (45 acres), and Sergeant's Grove (110.4 acres) (acreage based on non-surveyed real property records) were no longer required for the needs of the government and recommended for transfer out of DoD control. These properties were transferred out of DoD control on 16 September 1998. The BRAC area is not included in this inventory. The BRAC component of the range inventory is managed and reported separately by AEC.

Fort Indiantown Gap presently occupies approximately 17,100 acres, and it currently serves as the headquarters for the Pennsylvania Department of Military and Veterans Affairs and the Pennsylvania Army and Air National Guard. It also houses the Eastern Army Aviation Training Site, the second largest helicopter training facility in the United States. Over 100,000 troops train at Fort Indiantown Gap annually.

Contractor Team Composition

The CTT range inventory contractor team (CTT team) for Fort Indiantown Gap was staffed by Malcolm Pirnie, Inc. The CTT team leader for Fort Indiantown Gap was Mr. Jonathan Sperka. Additional team members included Ms. Rhonda Stone, Ms. Erin Keegan, and Ms. Denise Weaver as researchers; Mr. Svend Egholm as geographic information system (GIS) specialist; and Mr. Conrad Bernier as the quality assurance/quality control (QA/QC) manager.

Installation Points of Contact (POCs)

The primary CTT Range Inventory POC for Fort Indiantown Gap was Mr. Tony Hassler, Environmental Compliance Officer. Other Fort Indiantown Gap personnel who assisted in the inventory included Mr. John Fronko, Environmental Planning Supervisor; Major William Yearwood, Operations Officer; Mr. Robert Gustitus, Real Estate Representative; Mr. Robert Reeder, GIS Coordinator; Ms. Nancy Nelson, Real Estate Representative; and SGT Mike Fields and SGT George Allen of the 756th Ordnance Company (Explosive Ordnance Disposal - EOD).

Nature of Data Collection and Coordination

Each installation is unique in terms of the amount and quality of data available regarding CTT ranges and sites with UXO, DMM, and MC, as well as the depth of experience and knowledge of the personnel available for interviews. The data collection team attempts to contact as many applicable offices and review as many record repositories as possible.

Specifically, the following offices were contacted at Fort Indiantown Gap: Environmental, Real Estate, Facilities and Engineering, GIS, and EOD.

Summary of Critical Data Sources

Certain data sources (records and interviews) proved to be of particular use and interest to the data collection team for developing the CTT inventory at Fort Indiantown Gap. The data collection team, along with the assistance of Mr. John Fronko, identified two CTT ranges outside of the A/I range areas identified as part of the Phase 2 inventory using historical records and maps and the Safety Range Regulation for the installation. Specifically, Mr. Fronko provided the range inventory team with environmental reports and site contacts. The 756th Ordnance Company provided information on the types and amounts of ordnance recovered in the two transferred range areas identified in the inventory. Mr. Hassler provided historical information and aerial photographs pertaining to Mt. Gretna. Additionally, Mr. Gustitus provided the team with real estate documentation for Fort Indiantown Gap.

D. INSTALLATION CTT RANGE AND SITE DATA

This section presents information on the CTT ranges and sites with UXO, DMM or MC on or associated with the installation. It includes a summary of the total range and site area in acres, a summary of each individual CTT range and site, a table listing the details of each CTT range and site, a table with ownership and accessibility information, and a table illustrating the DERP eligibility determination.

Summary of CTT Range and UXO, DMM and MC Sites

The following is a summary of the range area at Fort Indiantown Gap:
A/I Range Area -- 14,939 acres (from Phase 2)
CTT Range/Site Area -- 10,525 acres
Total Range/Site Area (A/I and CTT combined) -- 25,464 acres

The areas identified as CTT ranges are all classified as transferred because they are not owned by the Army. No evidence of closed on-post ranges was found on the on-post non-A/I acreage. The CTT range/site ownership information is provided in Table D-1.

Table D-1: Ownership Summary Table

INSTALLATION NAME	RANGE / SITE NAME	OWNER	CTT ACREAGE
FORT INDIANTOWN GAP - ARNG	ARTILLERY RICOCHET AREA	STATE AGENCY	9122
FORT INDIANTOWN GAP - ARNG	COLD SPRING RANGE FAN	STATE AGENCY	1231
FORT INDIANTOWN GAP - ARNG	MT. GRETNA ARTILLERY RANGE	STATE AGENCY	119
FORT INDIANTOWN GAP - ARNG	MT. GRETNA MACHINE GUN RANGE	STATE AGENCY	1
FORT INDIANTOWN GAP - ARNG	MT. GRETNA PISTOL RANGE	STATE AGENCY	2
FORT INDIANTOWN GAP - ARNG	MT. GRETNA RIFLE RANGE	STATE AGENCY	50
		Total Acreage	**10525**

CTT Range and Site Summaries

Below are summaries for the individual CTT ranges and/or sites inventoried at the installation. Each summary typically includes a brief history of the range or site, total acreage, relative location, types of ordnance used or discarded, periods of use, information on any UXO responses conducted, and current usage. Only the non-A/I range area is reported to ARID to avoid duplicate Phase 2 and 3 reporting. The level of detail reported in these summaries is based on the level of data available. The ranges and sites are listed in alphabetical order.

ARTILLERY RICOCHET AREA -- The Artillery Ricochet Area is a 9,122-acre area located just north of the installation between Second Mountain and Peters Mountain. The undeveloped area is State Game Lands and is frequently used by recreational

hunters. The area is documented in the Safety Range Regulation for Fort Indiantown Gap (Army Regulation 385-1, Figure 7-1) as Restricted Airspace R5802A (also known as Restricted Area R5802A). The Safety Range Regulation describes the area as "a fall area for spent ordnance which ricochet north of Second Mountain." Based on this description, the Artillery Ricochet Area was defined by using the boundaries established in the Safety Range Regulation for Restricted Area R5802A. The 756th Ordnance Company (EOD) reported that they typically respond to numerous calls every hunting season involving artillery rounds. According to EOD, most of the rounds discovered in the area are old. No specific EOD records of White Phosphorus (WP) were found; however, both WP and illumination projectiles are authorized in the 1986 safety range regulation.

The area is considered a transferred range under the inventory because the Army does not own or control the property. The estimated active years for the range are from 1940 to 1998. The 1982 Installation Assessment done through the U.S. Army Toxic and Hazardous Materials Agency states that Fort Indiantown Gap "holds a Waiver of Safety from the Pennsylvania Game Commission for weapons range safety fans which extend beyond the installation boundaries onto State Game Lands No. 211 in Dauphin and Lebanon Counties." It states that Fort Indiantown Gap "also reportedly holds a special license from the Pennsylvania Game Commission for approximately 107 hectares [264 acres] north of the Impact Area as a safety measure in case projectiles fired in the impact area go beyond the installation boundary." No ordnance was intentionally fired into the Artillery Ricochet Area.

The following types of ordnance may be found in the area: 60-mm, 81-mm, and 4.2-inch mortars; and 105-mm, 155-mm and 8-inch projectiles. The Artillery Ricochet Area overlaps the Cold Spring Range Fan area included in the inventory; therefore, the area was adjusted accordingly so the overlap area was not double counted.

COLD SPRING RANGE FAN -- The Cold Spring Range Fan area is a 1,231-acre area located just north of the installation from the Cold Spring Area extending south towards the installation. The undeveloped area is State Game Lands and is frequently used by recreational hunters. A 1982 Installation Assessment report indicated, "at one time, the Cold Spring area served as an artillery firing point." For the purpose of the inventory, the boundaries of the Cold Spring Range Fan area were drawn by extending a line from the firing point to the northwest corner of the installation and another line from the firing point to the northeast corner of the installation. The exact targets and impact area for the munitions fired from the Cold Spring Area are unknown. The estimated active years for the range are from 1940 to 1970.

Artillery projectiles and mortars are the munitions types associated with the area. The following types of ordnance may be found in the area: 60-mm, 81-mm, and 4.2-inch mortars; and 105-mm, 155-mm and 8-inch projectiles. The Cold Spring Range Fan overlaps the Artillery Ricochet Area included in the inventory; therefore, the area

was adjusted accordingly so the overlap area was not double counted. The Cold Spring Range Fan also overlaps the current A/I range area within the installation boundary.

The 756th Ordnance Company reported that they respond to numerous calls every hunting season involving artillery rounds. According to EOD, most of the rounds discovered in the area appear to have been there for many years. No specific evidence was found regarding WP or illumination rounds from the range; however, these rounds have been used at other parts of the installation and it is assumed they were used at the Cold Spring Range Fan Area as well. The area is considered a transferred range under the inventory because the Army does not own or control the property, so it has been included in the CTT inventory as a transferred site associated with this active installation.

MT. GRETNA ARTILLERY RANGE – Fort Indiantown Gap personnel identified the former artillery range by comparing aerial photographs from the 1930s, 1950s, and modern day. Based on the aerial photographs and input from installation personnel, the size of the former artillery range is estimated at 119-acres. Limited data was available on the Mt. Gretna Artillery Range; therefore, it should be noted that the area included in the inventory is an estimate. The estimated area was based upon an educated guess from installation personnel and could not be verified through historic documents or other data sources. The estimated location of the former artillery range is in Mt. Gretna, Lebanon County, between Mt. Gretna Road (Route 117) and Ridge Road. The artillery range, as mapped, is immediately south of the former Mt. Gretna Rifle Range, and approximately 2,400-feet southwest of Lake Conewago. From the aerial photographs and discussions with local residents, it is estimated that the artillery was fired toward the south, toward the current location of Interstate 76. Artillery projectiles and mortars are the munitions types associated with the area. It is also believed that 37mm cannons were used on this range. Installation personnel have also spoken with individuals who recounted finding mortars in the area. However, no records of EOD responses were available to confirm. According to installation personnel, the range was relocated to Tobyhanna Army Depot, but the date of the move is unknown. The area is primarily undeveloped and forested, but portions of the site are used for agriculture. The area is currently owned by the Commonwealth of Pennsylvania and is maintained as part of State Game Lands #145 for recreational hunting and hiking. Although the Mt. Gretna Artillery Range may qualify as a FUDS property, it is not currently on the FUDS list, so it has been included in the CTT inventory as a transferred site associated with this active installation.

The estimated active years for the range are from 1900 to 1940. The start year was estimated based on the establishment of Mt. Gretna as a PAARNG summer encampment in 1885. Although the camp was formally moved to its current location in 1931, it is appropriate to assume that a reasonable amount of time would be needed to establish the new ranges. In addition, the Commonwealth's deeds for

State Game Lands #145 are dated March 1938. For these reasons, it is estimated that the Mt. Gretna Artillery Range was closed circa 1940. It is assumed that all of the former ranges at Mt. Gretna were used during the same timeframe.

Reference to an artillery range in "Mt. Gretna, a Coleman Legacy" includes a quote from General Gobin's official report on the encampment, dated November 10, 1885, which states " . . . I am authorized by Mr. Robert H. Coleman to offer the State a rifle range . . . at Mt. Gretna for infantry and artillery practice . . ." The location of the referenced artillery range is not provided in the book; however, it may be assumed that it is referencing the Mt. Gretna Artillery Range due to the proximity to the Mt. Gretna Rifle Range. The author also references an article in the Lebanon Daily News that describes a photograph of Lake Conewago at Mount Gretna as "we furnish our viewers a view of the lake showing . . . To the right through the trees is the little valley over which the cannon balls passed during artillery practice at last year's brigade encampment."

Additional information in the form of photographs, range maps, and other information regarding the ranges at Mt. Gretna are retained by the Environmental Division - Environmental Compliance Officer at Fort Indiantown Gap. Interns were researching the Mt. Gretna ranges as this report was being developed, and some detailed information may not have been captured within the report.

MT. GRETNA MACHINE GUN RANGE – Fort Indiantown Gap personnel identified the one-acre range on a 1950 aerial map obtained from the U.S. Geological Survey (USGS) located in Middletown, Pennsylvania. The map was used in conjunction with a local resident's interview to locate the range. The former machine gun range is located in Mt. Gretna, Lebanon County, west of Timber Lane and south of State Game. The former range is at the bottom of a hill adjacent to the Timbers Dinner Theater. A man-made earthen berm surrounds the site. The area is currently undeveloped with few trees and sparse undergrowth. The area is currently owned by the Commonwealth of Pennsylvania and is maintained as part of State Game Lands #145 for recreational hunting and hiking. It is estimated that .30 caliber munitions were used at this range. It is assumed that the ranges at Mt. Gretna were used during the same time period, so the active years are estimated as 1900 to 1940. Although the range area was identified on the 1950 aerial photograph, installation personnel concur that the ranges were most likely active from 1900 to 1940. There is no record of EOD responses for the former Mt. Gretna Machine Gun Range. Although this site may qualify as a FUDS property, it is not currently on the FUDS list, so it has been included in the CTT inventory as a transferred site associated with this active installation.

MT. GRETNA PISTOL RANGE – Fort Indiantown Gap personnel identified the two-acre range on a 1950 aerial map obtained from the USGS located in Middletown, Pennsylvania. The map was used in conjunction with a local resident's interview to locate the range. The former pistol range is located east of Mount Gretna Road

(Route 117) in Lebanon County. The former pistol range is approximately 800-feet south of Conewago Lake. A man-made earthen berm is still present at the site, and .45 caliber small arms ammunitions were recently discovered in the berm. It is assumed that the ranges at Mt. Gretna were used during the same time period, so the active years are estimated as 1900 to 1940. Although the range area was identified on the 1950 aerial photograph, installation personnel concur that the ranges were most likely active from 1900 to 1940. The area is currently undeveloped and tree covered. The area is currently owned by the Commonwealth of Pennsylvania and is maintained as part of State Game Lands #145 for recreational hunting and hiking. There is no record of EOD responses for the former Mt. Gretna Pistol Range. Although this site may qualify as a FUDS property, it is not currently on the FUDS list, so it has been included in the CTT inventory as a transferred site associated with this active installation.

MT. GRETNA RIFLE RANGE – Fort Indiantown Gap personnel identified the 50-acre Mt. Gretna Rifle Range on a 1950 aerial map obtained from the USGS located in Middletown, Pennsylvania. Additional maps (1900 to 1915 timeframe) obtained by the installation were used as a guide to determine the exact location of the former rifle range. The rifle range is located south of Mt. Gretna Road (Route 117) in Mt. Gretna, Lebanon County, Pennsylvania. The rifle range is immediately north of the Mt. Gretna Artillery Range. Installation personnel estimate that 100, 200, 300, and 600-yard ranges were established at the former Mt. Gretna Rifle Range. Throughout the history of the range various small arms munitions were used, including 30-06, .30 caliber, and .45 caliber. It is estimated that the rifle range was active the entire time Mt. Gretna was used for National Guard training. It is assumed that the ranges at Mt. Gretna were used during the same time period, so the active years are estimated as 1900 to 1940. Although the range area was identified on the 1950 aerial photograph, installation personnel concur that the ranges were most likely active from 1900 to 1940. The Commonwealth of Pennsylvania currently owns the area. A portion of the area is maintained as part of State Game Lands #145 for recreational hunting and hiking. The remaining portion of the site is currently agriculture. There is no record of EOD responses for the former Mt. Gretna Rifle Range. Although the Mt. Gretna Rifle Range may qualify as a FUDS property, it is not currently on the FUDS list, so it has been included in the CTT inventory as a transferred site associated with this active installation.

Reference to a rifle range in "Mt. Gretna, a Coleman Legacy" includes a quote from General Gobin's official report on the encampment, dated November 10, 1885, which states " . . . I am authorized by Mr. Robert H. Coleman to offer the State a rifle range . . . at Mt. Gretna for infantry and artillery practice . . ." The location of the referenced rifle range is not provided in the book; however, it may be assumed that it is referencing the Mt. Gretna Rifle Range due to the proximity to the Mt. Gretna Artillery Range. The author also states that a branch the narrow-gauge railroad extended 4,490 feet (0.85 miles) from the terminal to the PNG (Pennsylvania National Guard) rifle range.

CTT Range and Site Details Table

The CTT Range and Site Details Table (Table D-2) provides detailed information on the CTT areas included in the inventory.

Table D-2: CTT Site Details Table

INSTALLATION AND RANGE / SITE NAME	CLASSIFICATION	TOTAL AREA	MUNITIONS CONSTITUENTS	RAC SCORE*	HISTORIC USE
FORT INDIANTOWN GAP - ARNG ARTILLERY RICOCHET AREA	TRANSFERRED	9122	UNKNOWN	3	•BUFFER AREA •ARTILLERY
MUNITIONS TYPE(S) *LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY)* *LARGE CALIBER (37MM AND LARGER), HE* *LARGE CALIBER (37MM AND LARGER), PRACTICE* *MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE)* *MORTARS, HE* *MORTARS, PRACTICE*					
FORT INDIANTOWN GAP - ARNG COLD SPRING RANGE FAN	TRANSFERRED	1231	UNKNOWN	3	•ARTILLERY •BUFFER AREA
MUNITIONS TYPE(S) *LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY)* *LARGE CALIBER (37MM AND LARGER), HE* *LARGE CALIBER (37MM AND LARGER), PRACTICE* *MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE)* *MORTARS, HE* *MORTARS, PRACTICE*					
FORT INDIANTOWN GAP - ARNG MT. GRETNA ARTILLERY RANGE	TRANSFERRED	119	UNKNOWN	2	•ARTILLERY
MUNITIONS TYPE(S) *LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY)* *LARGE CALIBER (37MM AND LARGER), HE* *LARGE CALIBER (37MM AND LARGER), PRACTICE* *MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE)* *MORTARS, HE* *MORTARS, PRACTICE*					
FORT INDIANTOWN GAP - ARNG MT. GRETNA MACHINE GUN RANGE	TRANSFERRED	1	UNKNOWN	5	•SMALL ARMS
MUNITIONS TYPE(S) *SMALL ARMS*					
FORT INDIANTOWN GAP - ARNG MT. GRETNA PISTOL RANGE	TRANSFERRED	2	UNKNOWN	5	•SMALL ARMS
MUNITIONS TYPE(S)					

SMALL ARMS

FORT INDIANTOWN GAP - ARNG					•SMALL ARMS
MT. GRETNA RIFLE RANGE	TRANSFERRED	50	UNKNOWN	5	

MUNITIONS TYPE(S)

SMALL ARMS

* The RAC score is a prioritization and sequencing tool used to rank the explosives safety risk at a site; 1 is the highest explosives safety risk, 5 is the lowest explosives safety risk. The RAC score is discussed further in section G. The RAC Score is only developed for range, UXO and DMM sites, not MC sites.

The area data reported in ARID is adjusted to account for CTT range and site overlaps with A/I range areas inventoried in Phase 2 to ensure that no area is reported more than once. By definition, if a portion of the CTT range/site is considered an A/I range and is reported in Phase 2, the range/site portion is not reported again in the Phase 3 acreage (where applicable).

CTT Range and Site Ownership, Use and Access Control Summary Table

The Range and Site Ownership Table (Table D-3) provides a summary of the owner, current use and access restrictions associated with each CTT site in the inventory.

Table D-3: CTT Range and Site Ownership, Use and Access Control Summary Table

INSTALLATION AND RANGE / SITE NAME	OWNER	CURRENT USE	RESTRICTIONS
FORT INDIANTOWN GAP - ARNG			
ARTILLERY RICOCHET AREA	STATE AGENCY	•RECREATIONAL •UNDEVELOPED	
FORT INDIANTOWN GAP - ARNG			
COLD SPRING RANGE FAN	STATE AGENCY	•RECREATIONAL •UNDEVELOPED	
FORT INDIANTOWN GAP - ARNG			
MT. GRETNA ARTILLERY RANGE	STATE AGENCY	•RECREATIONAL •UNDEVELOPED •AGRICULTURAL W/O HOUSING	
FORT INDIANTOWN GAP - ARNG			
MT. GRETNA MACHINE GUN RANGE	STATE AGENCY	•RECREATIONAL •UNDEVELOPED	
FORT INDIANTOWN GAP - ARNG			
MT. GRETNA PISTOL RANGE	STATE AGENCY	•RECREATIONAL •UNDEVELOPED	

FORT INDIANTOWN GAP - ARNG		
MT. GRETNA RIFLE RANGE	STATE AGENCY	•RECREATIONAL •UNDEVELOPED •AGRICULTURAL W/O HOUSING

DERP Eligibility Table

The RMIS Information Table (Table D-4) and the DERP Eligibility Table (Table D-5) provide a summary of the process for determining a site's DERP eligibility. Specifically, the team determined whether a site should be covered under the MMRP program or if it was already addressed under the IRP and should remain under that program. For those sites that are not DERP eligible due to a lack of UXO, DMM, or MC contamination (e.g., bayonet ranges and drop zones), the table identifies the DERP eligibility as "other."

Table D-4: RMIS Information Table

INSTALLATION AND RANGE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DSERTS RC FLAG	RC REASON	ACTIVE DSERTS PHASE(S)
FORT INDIANTOWN GAP - ARNG ARTILLERY RICOCHET AREA	NA	N/A	N/A	N/A	N/A	N/A
FORT INDIANTOWN GAP - ARNG COLD SPRING RANGE FAN	NA	N/A	N/A	N/A	N/A	N/A
FORT INDIANTOWN GAP - ARNG MT. GRETNA ARTILLERY RANGE	NA	N/A	N/A	N/A	N/A	N/A
FORT INDIANTOWN GAP - ARNG MT. GRETNA MACHINE GUN RANGE	NA	N/A	N/A	N/A	N/A	N/A
FORT INDIANTOWN GAP - ARNG MT. GRETNA PISTOL RANGE	NA	N/A	N/A	N/A	N/A	N/A
FORT INDIANTOWN GAP - ARNG MT. GRETNA RIFLE RANGE	NA	N/A	N/A	N/A	N/A	N/A

Reason Codes:
A- All Required Cleanup(s) Completed, B- Study completed, No Cleanup Required,
C- Not Eligible for DERA/BRAC Funding, D- Other, N/A - Not Applicable,
Y-Yes, N-No

Table D-5: DERP Eligibility Table

INSTALLATION	RANGE/SITE NAME	RANGE	DERP ELIGIBILITY	RMIS RANGE ID	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	ARTILLERY RICOCHET AREA	Y	MR	FTIG-003-R	FTIG-003-R-01
FORT INDIANTOWN GAP - ARNG	COLD SPRING RANGE FAN	Y	MR	FTIG-004-R	FTIG-004-R-01
FORT INDIANTOWN GAP - ARNG	MT. GRETNA ARTILLERY RANGE	Y	MR	FTIG-005-R	FTIG-005-R-01
FORT INDIANTOWN GAP - ARNG	MT. GRETNA MACHINE GUN RANGE	Y	MR	FTIG-006-R	FTIG-006-R-01
FORT INDIANTOWN GAP - ARNG	MT. GRETNA PISTOL RANGE	Y	MR	FTIG-007-R	FTIG-007-R-01
FORT INDIANTOWN GAP - ARNG	MT. GRETNA RIFLE RANGE	Y	MR	FTIG-008-R	FTIG-008-R-01

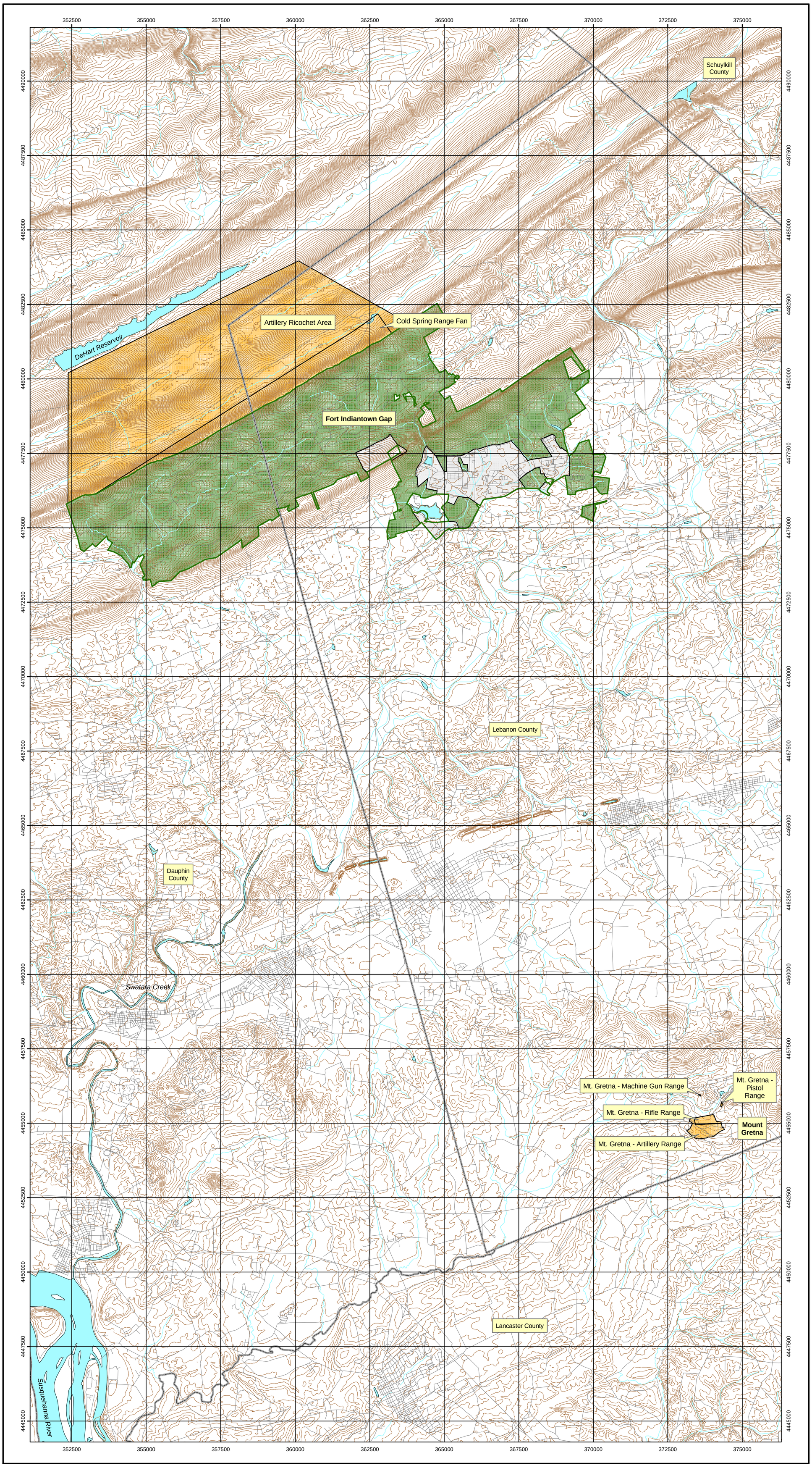
DERP Eligibility:
MR = Munitions Response Program Eligible, IR = Installation Restoration Program Eligible,
Other = Not Eligible for MR or IR Programs, Y = Yes, N = No

E. RANGE AND SITE MAPS

Individual CTT range and site map(s) were generated for the purposes of the Phase 3 inventory of this installation. The individual CTT range and site map(s) show all the range and site areas associated with the installation, including the A/I range areas (from Phase 2); closed, transferring, and transferred sites; and the non-range, UXO, DMM, or MC areas. An electronic version (.pdf file) of Figure E-1 has been provided as an upload to ARID. The individual CTT map(s) for the installation are included in this section.

CTT Range and UXO-DMM-MC Sites
Fort Indiantown Gap, PA

Figure E-1



Range Area	Acres
A/I Range	14939
Closed	0
Transferring	0
Transferred	10525

Legend

- Installation Boundary
- Roads
- Contours
- Counties
- Streams
- Water
- A/I Range Area
- Closed
- Transferring
- Transferred
- Non Range, Non UXO-DMM-MC Area

Projection UTM, zone 18

Horizontal Datum NAD83

Units Meters

Grid 2500 meters

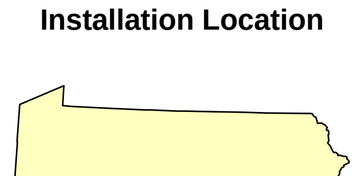
N W E S

1:65,000

1 0 1 2 Kilometers

1 0 1 2 Miles

Installation Location



CTT Range and UXO-DMM-MC Sites
Fort Indiantown Gap, PA

Source: Produced for the U.S. Army Corps of Engineers by Malcolm Pirnie, Inc. under contract DACA 31-00-D-0043.

Edition: Final Report

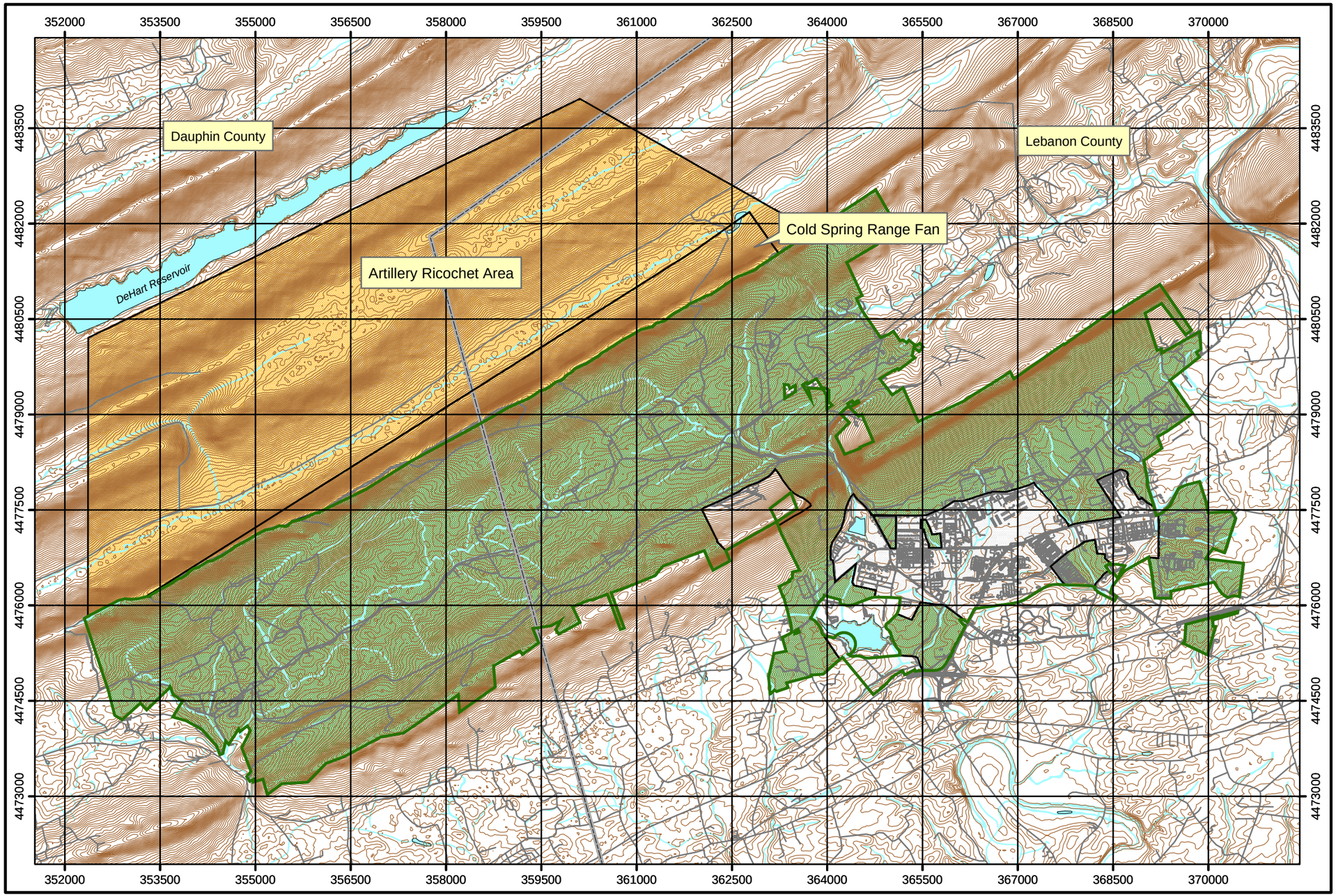
Date: October 2003

CTT Range and UXO-DMM-MC Sites
Fort Indiantown Gap, PA

MALCOLM PIRNIE

Figure E-2

Range Area	Acres
A/I Range	14939
Closed	0
Transferring	0
Transferred	10525



Legend

- Installation Boundary
- Roads
- Contours
- Counties
- Streams
- Water
- A/I Range Area
- Closed
- Transferring
- Transferred
- Non Range, Non UXO-DMM-MC Area

Projection UTM, zone 18

Horizontal Datum NAD83

Units Meters

Grid 1500 meters

N W E S

1:65,340

1 0.5 0 1 Kilometers

1 0.5 0 1 Miles

Installation Location

CTT Range and UXO-DMM-MC Sites
Fort Indiantown Gap, PA

Source: Produced for the U.S. Army Corps of Engineers by Malcolm Pirnie, Inc. under contract DACA 31-00-D-0043.

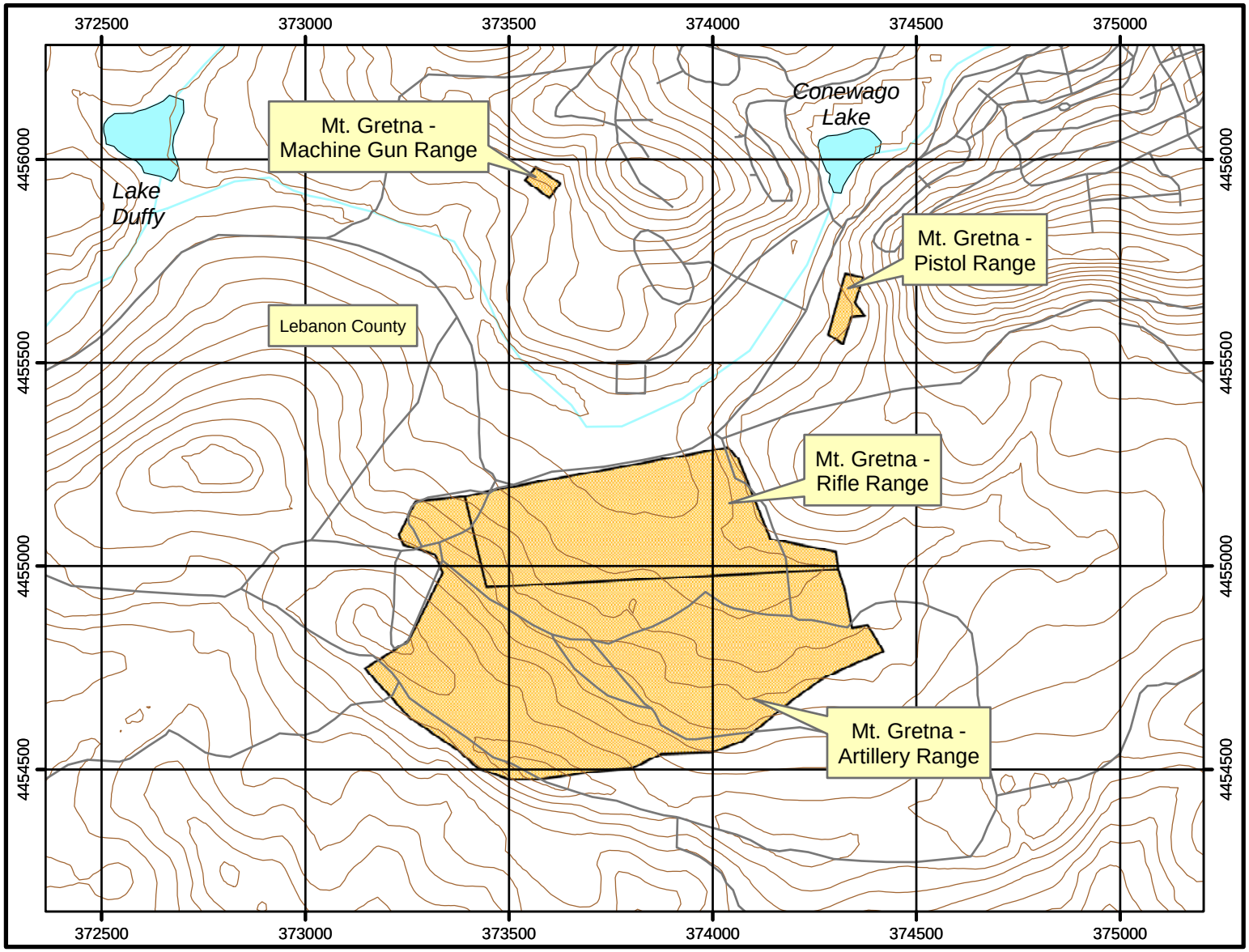
Edition: Final Report

Date: October 2003

CTT Range and UXO-DMM-MC Sites
Fort Indiantown Gap, PA

MALCOLM PIRNIE

Figure E-3



Range Area	Acres
A/I Range	14939
Closed	0
Transferring	0
Transferred	10525

Legend

- Installation Boundary
- Roads
- Contours
- Streams
- Water
- A/I Range Area
- Closed
- Transferring
- Transferred
- Non Range, Non UXO-DMM-MC Area

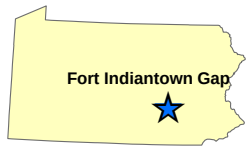
Projection	UTM, zone 18
Horizontal Datum	NAD83
Units	Meters
Grid	500 meters

1:15,014

0.2 0.1 0 0.2 Kilometers

0.2 0.1 0 0.2 Miles

Installation Location



CTT Range and UXO-DMM-MC Sites
Fort Indiantown Gap, PA

Source: Produced for the U.S. Army Corps of Engineers by Malcolm Pirnie, Inc. under contract DACA 31-00-D-0043.

Edition: Final Report

Date: October 2003

F. ARID DATA FILES

This section contains a printout of the ARID data files submitted to AEC for the Phase 3 CTT Inventory for this installation. The files were set up according to the guidelines in the ARID Upload Instructions (14 January 2003). The following files are included:

- Points of Contact
- Installation
- Range
- Munitions
- Ownership
- Land Use Restriction and Access Controls
- Range Demographics
- RMIS Site Information
- DSERTS Site Information

POC Table

10/24/2003

INSTALLATION NAME	FFID	LAST NAME	FIRST NAME	POC TITLE	POC ORG
FORT INDIANTOWN GAP - ARNG	PA211842A20	HASSLER	JOHN	ENVIRONMENTAL COMPLIANCE MANAGER	ENVIRONMENTAL DIVISION

POC TYPE: CTT

PHONE	ADDRESS
PHONE 717-861-8100 DSN 491-8100 FAX 717-861-8249 EMAIL THASSLER@STATE.PA.US	ENVIRONMENTAL COMPLIANCE ASSESSMENT OFFICER PA DEPARTMENT OF MILITARY AND VETERANS AFFAIRS FORT INDIANTOWN GAP, BUILDING 11 - 19 ANNVILLE, PA 17003-5002 UNITED STATES

Installation Table

10/22/2003

INSTALLATION NAME	FFID	MACOM	MSC	PARENT INSTALLATION	A/I RANGE	CTT RANGE	BRAC ROUND	DERA FLAG	FUDS FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARNG	PAARNG		Y	Y	N/A	Y	N

Range Table

10/24/2003

RMIS RANGE ID: FTIG-003-R

INSTALLATION NAME	FFID	RANGE/SITE NAME	STATUS	SEVERITY SCORE	PROBABILITY SCORE	RAC SCORE
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA	TRANSFERRED	II	C	3

RANGE DESCRIPTION

The Artillery Ricochet Area is just north of the installation between Second Mountain and Peters Mountain. The undeveloped area is State Game Lands and is frequently used by recreational hunters. The area is documented in the Safety Range Regulation for Fort Indiantown Gap (Army Regulation 385-1, Figure 7-1) dated October 1986. The airspace R5802A was used to draw the boundaries of the Artilley Ricochet Area. The safety range regulation describes the area as "a fall area for spent ordnance which ricochet north of Second Mountain." The 756 th Ordnance Company (EOD) reported that they typically respond to numerous calls every hunting season involving artillery rounds.

CTT TOTAL ACRES	MMR ACRES IDENTIFIED	MMR ACRES SUSPECTED	MMR ACRES NOT SUSPECTED
9122	0	9122	0

UTM ZONE	UTM DATUM	UTM X	UTM Y	CONSTRUCTION DATE	RIP RC DATE
18	NAD83	356840	4480299	1/1/40	

COMMENT

It is considered a transferred range under the inventory because the property is not owned by the Army and was not considered A/I range area from the Phase 2 inventory.

TOPOGRAPHY	VEGETATION	SOIL TYPE
MOUNTAINOUS	FOREST	CLAY/SAND WITH STONE

		START YEAR
CURRENT USE 1	RECREATIONAL	1970
CURRENT USE 2	UNDEVELOPED	1970
CURRENT USE 3	N/A	

		START YEAR	END YEAR
HISTORIC USE 1	BUFFER AREA	1940	1998
HISTORIC USE 2	ARTILLERY	1940	1970
HISTORIC USE 3	N/A		

Range Table

10/24/2003

RMIS RANGE ID: FTIG-004-R

INSTALLATION NAME	FFID	RANGE/SITE NAME	STATUS	SEVERITY SCORE	PROBABILITY SCORE	RAC SCORE
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN	TRANSFERRED	II	C	3

RANGE DESCRIPTION

The Cold Spring Range Fan area is just north of the installtion from the Cold Spring Area extending south towards the installation. A 1982 Installation Assessment report listed that "at one time, the Cold Spring area served as an artillery firing point." For the inventory, the boundaries of the Cold Spring Range Fan area were drawn by extending boundary lines from the firing point to the northwest corner and to the northeast corner of the installation. The exact targets and impact area for the Cold Spring Area are unknown. The 756th EOD reported that they respond to numerous calls every hunting season involving artillery rounds that appear to have been there for many years.

CTT TOTAL ACRES	MMR ACRES IDENTIFIED	MMR ACRES SUSPECTED	MMR ACRES NOT SUSPECTED
1231	0	1231	0

UTM ZONE	UTM DATUM	UTM X	UTM Y	CONSTRUCTION DATE	RIP RC DATE
18	NAD83	359586	4479787	1/1/40	

COMMENT

It is considered a transferred range under the inventory because the property is not owned by the Army and was not considered A/I range area from the Phase 2 inventory.

TOPOGRAPHY	VEGETATION	SOIL TYPE
MOUNTAINOUS	FOREST	CLAY/SAND WITH STONE

		START YEAR
CURRENT USE 1	RECREATIONAL	1970
CURRENT USE 2	UNDEVELOPED	1970
CURRENT USE 3	N/A	

		START YEAR	END YEAR
HISTORIC USE 1	ARTILLERY	1940	1970
HISTORIC USE 2	BUFFER AREA	1940	1998
HISTORIC USE 3	N/A		

Range Table

10/24/2003

RMIS RANGE ID: FTIG-005-R

INSTALLATION NAME	FFID	RANGE/SITE NAME	STATUS	SEVERITY SCORE	PROBABILITY SCORE	RAC SCORE
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE	TRANSFERRED	II	B	2

RANGE DESCRIPTION

Fort Indiantown Gap personnel identified the 119-acre range on a historic map. The former artillery range is located in Mt. Gretna, Lebanon County, between Mt. Gretna Road (Route 117) and Ridge Road. The artillery range is immediately south of the former Mt. Gretna Rifle Range, and approximately 2,400-feet southwest of Lake Conewago. Installation personnel have also spoken with individuals who recount finding mortars in the area. However, no records of EOD responses were available. The range was moved to Tobyhanna Army Depot, but the date of the move is unknown. The estimated active years for the range are from 1915 to 1930. The area is primarily undeveloped and forested, but portions of the site are used for agriculture.

CTT TOTAL ACRES	MMR ACRES IDENTIFIED	MMR ACRES SUSPECTED	MMR ACRES NOT SUSPECTED
119	0	119	0

UTM ZONE	UTM DATUM	UTM X	UTM Y	CONSTRUCTION DATE	RIP RC DATE
18	NAD83	373740	4454773	1/1/1900	

COMMENT

TOPOGRAPHY	VEGETATION	SOIL TYPE
HEAVILY ROLLING	FOREST	CLAY/SAND WITH STONE

		START YEAR
CURRENT USE 1	RECREATIONAL	1940
CURRENT USE 2	UNDEVELOPED	1940
CURRENT USE 3	AGRICULTURAL W/O HOUSING	1940

		START YEAR	END YEAR
HISTORIC USE 1	ARTILLERY	1900	1940
HISTORIC USE 2	N/A		
HISTORIC USE 3	N/A		

Range Table

10/24/2003

RMIS RANGE ID: FTIG-006-R

INSTALLATION NAME	FFID	RANGE/SITE NAME	STATUS	SEVERITY SCORE	PROBABILITY SCORE	RAC SCORE
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE	TRANSFERRED	V		5

RANGE DESCRIPTION

Fort Indiantown Gap personnel identified the one-acre range on a historic map. The former machine gun range is located in Mt. Gretna, Lebanon County, west of Timber Lane and south of State Game. The former range is at the bottom of a hill adjacent to the Timbers Dinner Theater. A man-made earthen berm surrounds the site. The area is currently undeveloped with few trees and sparse undergrowth. It is estimated that .30 caliber munitions were used at this range from 1915 to 1940. There is no record of EOD responses for the former Mt. Gretna Machine Gun Range.

CTT TOTAL ACRES	MMR ACRES IDENTIFIED	MMR ACRES SUSPECTED	MMR ACRES NOT SUSPECTED
1	0	1	0

UTM ZONE	UTM DATUM	UTM X	UTM Y	CONSTRUCTION DATE	RIP RC DATE
18	NAD83	373582	4455944	1/1/1900	

COMMENT

TOPOGRAPHY	VEGETATION	SOIL TYPE
HEAVILY ROLLING	FOREST	CLAY/SAND WITH STONE

		START YEAR
CURRENT USE 1	RECREATIONAL	1940
CURRENT USE 2	UNDEVELOPED	1940
CURRENT USE 3	N/A	

		START YEAR	END YEAR
HISTORIC USE 1	SMALL ARMS	1900	1940
HISTORIC USE 2	N/A		
HISTORIC USE 3	N/A		

Range Table

10/24/2003

RMIS RANGE ID: FTIG-007-R

INSTALLATION NAME	FFID	RANGE/SITE NAME	STATUS	SEVERITY SCORE	PROBABILITY SCORE	RAC SCORE
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE	TRANSFERRED	V		5

RANGE DESCRIPTION

Fort Indiantown Gap personnel identified the two-acre range on a historic map. The former pistol range is located east of Mount Gretna Road (Route 117) in Lebanon County. The former pistol range is approximately 800-feet south of Conewago Lake. A man-made earthen berm is still present at the site, and .45 caliber munitions were recently discovered in the berm. The estimated active years for the range are from 1915 to 1940. The area is currently undeveloped and tree covered. There is no record of EOD responses for the former Mt. Gretna Pistol Range.

CTT TOTAL ACRES	MMR ACRES IDENTIFIED	MMR ACRES SUSPECTED	MMR ACRES NOT SUSPECTED
2	0	2	0

UTM ZONE	UTM DATUM	UTM X	UTM Y	CONSTRUCTION DATE	RIP RC DATE
18	NAD83	374327	4455637	1/1/1900	

COMMENT

TOPOGRAPHY	VEGETATION	SOIL TYPE
HEAVILY ROLLING	FOREST	CLAY/SAND WITH STONE

		START YEAR
CURRENT USE 1	RECREATIONAL	1940
CURRENT USE 2	UNDEVELOPED	1940
CURRENT USE 3	N/A	

		START YEAR	END YEAR
HISTORIC USE 1	SMALL ARMS	1900	1940
HISTORIC USE 2	N/A		
HISTORIC USE 3	N/A		

Range Table

10/24/2003

RMIS RANGE ID: FTIG-008-R

INSTALLATION NAME	FFID	RANGE/SITE NAME	STATUS	SEVERITY SCORE	PROBABILITY SCORE	RAC SCORE
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE	TRANSFERRED	V		5

RANGE DESCRIPTION

Fort Indiantown Gap personnel identified the 50-acre Mt. Gretna Rifle Range on numerous historic maps. The rifle range is located south of Mt. Gretna Road (Route 117) in Mt. Gretna, Lebanon County, Pennsylvania. The rifle range is immediately north of the Mt. Gretna Artillery Range. Installation personnel estimate that 100, 200, 300, and 600-yard ranges were established at the former Mt. Gretna Rifle Range. Throughout the history of the range various small arms munitions were used, including 30-06, .30 caliber, and .45 caliber. A portion of the site is currently overgrown, and the remaining portion is currently agriculture.

CTT TOTAL ACRES	MMR ACRES IDENTIFIED	MMR ACRES SUSPECTED	MMR ACRES NOT SUSPECTED
50	0	50	0

UTM ZONE	UTM DATUM	UTM X	UTM Y	CONSTRUCTION DATE	RIP RC DATE
18	NAD83	373804	4455098	1/1/1900	

COMMENT

TOPOGRAPHY	VEGETATION	SOIL TYPE
HEAVILY ROLLING	FOREST	CLAY/SAND WITH STONE

		START YEAR
CURRENT USE 1	RECREATIONAL	1940
CURRENT USE 2	UNDEVELOPED	1940
CURRENT USE 3	AGRICULTURAL W/O HOUSING	1940

		START YEAR	END YEAR
HISTORIC USE 1	SMALL ARMS	1900	1940
HISTORIC USE 2	N/A		
HISTORIC USE 3	N/A		

Munitions Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE

DODIC	DODIC DESCRIPTION	START DATE	END DATE	MUNITIONS EXPENDED
CTT21	LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY)	01/1900	01/1940	
CTT11	LARGE CALIBER (37MM AND LARGER), HE	01/1900	01/1940	
CTT22	LARGE CALIBER (37MM AND LARGER), PRACTICE	01/1900	01/1940	
CTT24	MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE)	01/1900	01/1940	
CTT23	MORTARS, HE	01/1900	01/1940	
CTT25	MORTARS, PRACTICE	01/1900	01/1940	

INSTALLATION NAME	FFID	RANGE/SITE NAME
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE

DODIC	DODIC DESCRIPTION	START DATE	END DATE	MUNITIONS EXPENDED
CTT16	SMALL ARMS	01/1900	01/1940	

INSTALLATION NAME	FFID	RANGE/SITE NAME
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE

DODIC	DODIC DESCRIPTION	START DATE	END DATE	MUNITIONS EXPENDED
CTT16	SMALL ARMS	01/1900	01/1940	

** Not all items listed under the DODIC Description may be present at the range/site.

Munitions Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA

DODIC	DODIC DESCRIPTION	START DATE	END DATE	MUNITIONS EXPENDED
CTT21	LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY)	01/1940	01/1998	
CTT11	LARGE CALIBER (37MM AND LARGER), HE	01/1940	01/1998	
CTT22	LARGE CALIBER (37MM AND LARGER), PRACTICE	01/1940	01/1998	
CTT24	MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE)	01/1940	01/1998	
CTT23	MORTARS, HE	01/1940	01/1998	
CTT25	MORTARS, PRACTICE	01/1940	01/1998	

INSTALLATION NAME	FFID	RANGE/SITE NAME
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN

DODIC	DODIC DESCRIPTION	START DATE	END DATE	MUNITIONS EXPENDED
CTT21	LARGE CALIBER (37MM AND LARGER), (SMOKE, WP, INCENDIARY)	01/1940	01/1998	
CTT11	LARGE CALIBER (37MM AND LARGER), HE	01/1940	01/1998	
CTT22	LARGE CALIBER (37MM AND LARGER), PRACTICE	01/1940	01/1998	
CTT24	MORTARS, (WP, INCENDIARY, ILLUMINATION, SMOKE)	01/1940	01/1998	
CTT23	MORTARS, HE	01/1940	01/1998	
CTT25	MORTARS, PRACTICE	01/1940	01/1998	

** Not all items listed under the DODIC Description may be present at the range/site.

Munitions Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE

DODIC	DODIC DESCRIPTION	START DATE	END DATE	MUNITIONS EXPENDED
CTT16	SMALL ARMS	01/1900	01/1940	

** Not all items listed under the DODIC Description may be present at the range/site.

Ownership Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	ALL ARMY OWNED	OWNER	OWNER DESCRIPTION
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA	N	STATE AGENCY	PENNSYLVANIA GAME COMMISSION

FEDERAL LEASE FLAG	STATE LEASE FLAG	LOCAL LEASE FLAG	TRIBAL LEASE FLAG	PRIVATE LEASE FLAG	OTHER LEASE FLAG	OTHER LEASE DESCRIPTION	LEASE TERMINATED	REVOCATION OF LAND
N	N	N	N	N	N	N/A	N	N

INSTALLATION NAME	FFID	RANGE/SITE NAME	ALL ARMY OWNED	OWNER	OWNER DESCRIPTION
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN	N	STATE AGENCY	PENNSYLVANIA GAME COMMISSION

FEDERAL LEASE FLAG	STATE LEASE FLAG	LOCAL LEASE FLAG	TRIBAL LEASE FLAG	PRIVATE LEASE FLAG	OTHER LEASE FLAG	OTHER LEASE DESCRIPTION	LEASE TERMINATED	REVOCATION OF LAND
N	N	N	N	N	N	N/A	N	N

INSTALLATION NAME	FFID	RANGE/SITE NAME	ALL ARMY OWNED	OWNER	OWNER DESCRIPTION
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE	N	STATE AGENCY	PENNSYLVANIA GAME COMMISSION

FEDERAL LEASE FLAG	STATE LEASE FLAG	LOCAL LEASE FLAG	TRIBAL LEASE FLAG	PRIVATE LEASE FLAG	OTHER LEASE FLAG	OTHER LEASE DESCRIPTION	LEASE TERMINATED	REVOCATION OF LAND
N	N	N	N	N	N	N/A	N	N

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Ownership Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	ALL ARMY OWNED	OWNER	OWNER DESCRIPTION
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE	N	STATE AGENCY	PENNSYLVANIA GAME COMMISSION

FEDERAL LEASE FLAG	STATE LEASE FLAG	LOCAL LEASE FLAG	TRIBAL LEASE FLAG	PRIVATE LEASE FLAG	OTHER LEASE FLAG	OTHER LEASE DESCRIPTION	LEASE TERMINATED	REVOCATION OF LAND
N	N	N	N	N	N	N/A	N	N

INSTALLATION NAME	FFID	RANGE/SITE NAME	ALL ARMY OWNED	OWNER	OWNER DESCRIPTION
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE	N	STATE AGENCY	PENNSYLVANIA GAME COMMISSION

FEDERAL LEASE FLAG	STATE LEASE FLAG	LOCAL LEASE FLAG	TRIBAL LEASE FLAG	PRIVATE LEASE FLAG	OTHER LEASE FLAG	OTHER LEASE DESCRIPTION	LEASE TERMINATED	REVOCATION OF LAND
N	N	N	N	N	N	N/A	N	N

INSTALLATION NAME	FFID	RANGE/SITE NAME	ALL ARMY OWNED	OWNER	OWNER DESCRIPTION
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE	N	STATE AGENCY	PENNSYLVANIA GAME COMMISSION

FEDERAL LEASE FLAG	STATE LEASE FLAG	LOCAL LEASE FLAG	TRIBAL LEASE FLAG	PRIVATE LEASE FLAG	OTHER LEASE FLAG	OTHER LEASE DESCRIPTION	LEASE TERMINATED	REVOCATION OF LAND
N	N	N	N	N	N	N/A	N	N

Land Use Restriction Table

10/24/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	RESTRICTION TYPE	RESTRICTION	PUBLIC ACCESS
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA			UPA

DESCRIPTION: THERE ARE NO RESTRICTIONS WHEN THE AREA IS USED BY HUNTERS, SO THERE IS UPA.

INSTALLATION NAME	FFID	RANGE/SITE NAME	RESTRICTION TYPE	RESTRICTION	PUBLIC ACCESS
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN			UPA

DESCRIPTION: THERE ARE NO RESTRICTIONS WHEN THE AREA IS USED BY HUNTERS, SO THERE IS UPA.

INSTALLATION NAME	FFID	RANGE/SITE NAME	RESTRICTION TYPE	RESTRICTION	PUBLIC ACCESS
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE			UPA

DESCRIPTION: THERE ARE NO RESTRICTIONS WHEN THE AREA IS USED BY HUNTERS, SO THERE IS UPA.

INSTALLATION NAME	FFID	RANGE/SITE NAME	RESTRICTION TYPE	RESTRICTION	PUBLIC ACCESS
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE			UPA

DESCRIPTION: THERE ARE NO RESTRICTIONS WHEN THE AREA IS USED BY HUNTERS, SO THERE IS UPA.

INSTALLATION NAME	FFID	RANGE/SITE NAME	RESTRICTION TYPE	RESTRICTION	PUBLIC ACCESS
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE			UPA

DESCRIPTION: THERE ARE NO RESTRICTIONS WHEN THE AREA IS USED BY HUNTERS, SO THERE IS UPA.

PUBLIC ACCESS DEFINITIONS

NPA = No Public Access: The public does not have any access to the range/site.

LPA = Limited Public Access: The public does have some access to the range/site, but that access doesn't involve any digging, only surface access, such as livestock grazing or use as a wildlife preserve or refuge.

RPA = Restricted Public Access: The public does have some access to the range/site and that access may involve some surface disturbance, such as agricultural use, forestry, recreation, and vehicle or supply storage facility use.

UPA = Unrestricted Public Access: There are no restrictions on the use of the range/site (excavation is allowed).

Land Use Restriction Table

10/24/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	RESTRICTION TYPE	RESTRICTION	PUBLIC ACCESS
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE			UPA

DESCRIPTION: THERE ARE NO RESTRICTIONS WHEN THE AREA IS USED BY HUNTERS, SO THERE IS UPA.

PUBLIC ACCESS DEFINITIONS

NPA = No Public Access: The public does not have any access to the range/site.

LPA = Limited Public Access: The public does have some access to the range/site, but that access doesn't involve any digging, only surface access, such as livestock grazing or use as a wildlife preserve or refuge.

RPA = Restricted Public Access: The public does have some access to the range/site and that access may involve some surface disturbance, such as agricultural use, forestry, recreation, and vehicle or supply storage facility use.

UPA = Unrestricted Public Access: There are no restrictions on the use of the range/site (excavation is allowed).

Range Demographics Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	TYPE	NAME	STATE	COUNTRY
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA	COUNTY	DAUPHIN	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA	COUNTY	LEBANON	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN	COUNTY	DAUPHIN	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN	COUNTY	LEBANON	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE	COUNTY	LEBANON	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE	COUNTY	LEBANON	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE	COUNTY	LEBANON	PA	UNITED STATES
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE	COUNTY	LEBANON	PA	UNITED STATES

'2

RMIS Information Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	RMIS RANGE ID	RMIS SITE ID	ON RANGE FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA	FTIG-003-R	FTIG-003-R-01	Y

RMIS SITE USEAGE:

BUFFER AREA	DISPOSAL	OBOD	SMALL ARMS RANGE	SKEET RANGE	TESTING	TRAINING	WASTE MILITARY MUNITIONS	OTHER	OTHER DESCRIPTION
Y	N	N	N	N	N	N	N	N	

DRINKING WATER	GROUNDWATER DEPTH (FT)	CONSTITUENT FLAG	UXO DENSITY
POTENTIAL	15	UNKNOWN	LOW

INSTALLATION NAME	FFID	RANGE/SITE NAME	RMIS RANGE ID	RMIS SITE ID	ON RANGE FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN	FTIG-004-R	FTIG-004-R-01	Y

RMIS SITE USEAGE:

BUFFER AREA	DISPOSAL	OBOD	SMALL ARMS RANGE	SKEET RANGE	TESTING	TRAINING	WASTE MILITARY MUNITIONS	OTHER	OTHER DESCRIPTION
Y	N	N	N	N	N	Y	N	N	

DRINKING WATER	GROUNDWATER DEPTH (FT)	CONSTITUENT FLAG	UXO DENSITY
POTENTIAL	15	UNKNOWN	LOW

RMIS Information Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	RMIS RANGE ID	RMIS SITE ID	ON RANGE FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE	FTIG-005-R	FTIG-005-R-01	Y

RMIS SITE USEAGE:

BUFFER AREA	DISPOSAL	OBOD	SMALL ARMS RANGE	SKEET RANGE	TESTING	TRAINING	WASTE MILITARY MUNITIONS	OTHER	OTHER DESCRIPTION
N	N	N	N	N	N	Y	N	N	

DRINKING WATER	GROUNDWATER DEPTH (FT)	CONSTITUENT FLAG	UXO DENSITY
POTENTIAL	15	UNKNOWN	LOW

INSTALLATION NAME	FFID	RANGE/SITE NAME	RMIS RANGE ID	RMIS SITE ID	ON RANGE FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE	FTIG-006-R	FTIG-006-R-01	Y

RMIS SITE USEAGE:

BUFFER AREA	DISPOSAL	OBOD	SMALL ARMS RANGE	SKEET RANGE	TESTING	TRAINING	WASTE MILITARY MUNITIONS	OTHER	OTHER DESCRIPTION
N	N	N	Y	N	N	Y	N	N	

DRINKING WATER	GROUNDWATER DEPTH (FT)	CONSTITUENT FLAG	UXO DENSITY
POTENTIAL	15	UNKNOWN	LOW

RMIS Information Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	RMIS RANGE ID	RMIS SITE ID	ON RANGE FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE	FTIG-007-R	FTIG-007-R-01	Y

RMIS SITE USEAGE:

BUFFER AREA	DISPOSAL	OBOD	SMALL ARMS RANGE	SKEET RANGE	TESTING	TRAINING	WASTE MILITARY MUNITIONS	OTHER	OTHER DESCRIPTION
N	N	N	Y	N	N	Y	N	N	

DRINKING WATER	GROUNDWATER DEPTH (FT)	CONSTITUENT FLAG	UXO DENSITY
POTENTIAL	15	UNKNOWN	LOW

INSTALLATION NAME	FFID	RANGE/SITE NAME	RMIS RANGE ID	RMIS SITE ID	ON RANGE FLAG
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE	FTIG-008-R	FTIG-008-R-01	Y

RMIS SITE USEAGE:

BUFFER AREA	DISPOSAL	OBOD	SMALL ARMS RANGE	SKEET RANGE	TESTING	TRAINING	WASTE MILITARY MUNITIONS	OTHER	OTHER DESCRIPTION
N	N	N	Y	N	N	Y	N	N	

DRINKING WATER	GROUNDWATER DEPTH (FT)	CONSTITUENT FLAG	UXO DENSITY
POTENTIAL	15	UNKNOWN	LOW

DSERTS Information Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DERP ELIGIBILITY	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	PA211842A20	ARTILLERY RICOCHET AREA	NA			MR	FTIG-003-R-01

DSERTS PHASE	RESPONSE COMPLETE: FLAG	REASON

INSTALLATION NAME	FFID	RANGE/SITE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DERP ELIGIBILITY	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	PA211842A20	COLD SPRING RANGE FAN	NA			MR	FTIG-004-R-01

DSERTS PHASE	RESPONSE COMPLETE: FLAG	REASON

INSTALLATION NAME	FFID	RANGE/SITE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DERP ELIGIBILITY	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA ARTILLERY RANGE	NA			MR	FTIG-005-R-01

DSERTS PHASE	RESPONSE COMPLETE: FLAG	REASON

DSERTS Information Table

10/22/2003

INSTALLATION NAME	FFID	RANGE/SITE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DERP ELIGIBILITY	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA MACHINE GUN RANGE	NA			MR	FTIG-006-R-01

DSERTS PHASE	RESPONSE COMPLETE: FLAG	REASON

INSTALLATION NAME	FFID	RANGE/SITE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DERP ELIGIBILITY	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA PISTOL RANGE	NA			MR	FTIG-007-R-01

DSERTS PHASE	RESPONSE COMPLETE: FLAG	REASON

INSTALLATION NAME	FFID	RANGE/SITE NAME	DSERTS SITE ID	DSERTS CTC INCLUDES UXO-DMM	DSERTS SITE ID HAS BRAC UXO FLAG	DERP ELIGIBILITY	RMIS SITE ID
FORT INDIANTOWN GAP - ARNG	PA211842A20	MT. GRETNA RIFLE RANGE	NA			MR	FTIG-008-R-01

DSERTS PHASE	RESPONSE COMPLETE: FLAG	REASON

G. RISK ASSESSMENT CODE ANALYSIS

As part of the CTT Inventory, the data collection teams performed an assessment of explosives safety risk using the RAC process. The RAC process requires the completion of a worksheet that consists of a series of questions regarding the range or site. Based on the results of the worksheet, relative values for the severity and probability of explosives safety risk associated with the range area are assigned. The severity and probability values are then combined to arrive at an overall score (RAC score).The RAC score is an estimate of the relative explosives risk, which is reported as a number between 1 and 5. The following is a description of the RAC scores.

RAC 1 High Explosives Safety Risk - Highest priority for further action.

RAC 2 Serious Explosives Safety Risk - Priority for further action.

RAC 3 Moderate Explosives Safety Risk - Recommend further action.

RAC 4 Low Explosives Safety Risk - Recommend further action.

RAC 5 Negligible Explosives Safety Risk - No explosive related action necessary.

As designed by USACE, a site's RAC score is calculated and revised up to the end of the site's investigation as an expression of the explosives safety risk at the site. The RAC scoring performed under this CTT inventory is based on the munitions used, discarded, or disposed of at the CTT military range or site with UXO, DMM, or MC as determined through interviews, site visits and historic records and does not reflect any clean-up actions that may have already been performed at the site. If cleanup actions have been completed at the site, this is noted in the Narrative at the end of the RAC worksheet. Hence, the actual RAC score may reflect a higher than anticipated current risk at the site. DoD is currently developing a new priority assessment tool for site explosives safety risk. Until a new tool is approved for use, DoD is mandating the use of RAC scoring for the analysis of explosives safety risk associated with ranges and sites identified during this CTT inventory.

The area, probability value, severity value and overall RAC score for each of the CTT range, UXO and DMM sites in the inventory are provided in Table G-1 below.

Table G-1: Risk Assessment Code Analysis Results

INSTALLATION	RANGE NAME	ACRES	SEVERITY*	PROBABILITY**	OVERALL***
FORT INDIANTOWN GAP - ARNG	ARTILLERY RICOCHET AREA	9122	II	C	3
FORT INDIANTOWN GAP - ARNG	COLD SPRING RANGE FAN	1231	II	C	3
FORT INDIANTOWN GAP - ARNG	MT. GRETNA ARTILLERY RANGE	119	II	B	2
FORT INDIANTOWN GAP - ARNG	MT. GRETNA MACHINE GUN RANGE	1	V	N/A	5
FORT INDIANTOWN GAP - ARNG	MT. GRETNA PISTOL RANGE	2	V	N/A	5
FORT INDIANTOWN GAP - ARNG	MT. GRETNA RIFLE RANGE	50	V	N/A	5

* Severity – 5 possible classifications from I (catastrophic) to V (none)
** Probability – 5 possible classifications from A (frequent) to E (improbable).
*** "0" indicates that the site is a MC site and therefore, RAC scores have not been prepared.

According to the RAC worksheet instructions, if the severity value is V, the probability value does not need to be calculated, and a RAC score of 5 should be assigned to the range.

The completed RAC worksheet for each range in the CTT inventory is also included in this section. RAC worksheets were not prepared for MC sites.

RISK ASSESSMENT CODE WORKSHEETS

RISK ASSESSMENT CODE WORKSHEETS

Artillery Ricochet Area

Artillery Ricochet Area

RISK ASSESSMENT CODE WORKSHEETS

Site Name: Artillery Ricochet Area
Site Location: FORT INDIANTOWN GAP - ARNG
Date Completed: 11/11/02

Rater's Name: Jonathan Sperka
Phone: (410) 230-9962
Organization: MPI
Score: RAC 3

Explosive Relative Risk Assessment:
This risk assessment procedure was developed in accordance with Military Standard 882C and Army Regulation 385-10. The Risk Assessment Code (RAC) score will be used by DoD and the U.S. Army to assist in the prioritization and sequencing of projects. The risk assessment is based on the best available information resulting from the data collection effort of the CTT inventory. This information is used to assess the explosive relative risk involved with the CTT ranges/sites identified in this inventory. The risk assessment is composed of two factors, hazard severity and hazard probability.

PART I. HAZARD SEVERITY

Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of UXO.

TYPE OF ORDNANCE: (Circle all that apply)	**VALUE**
A. Conventional ordnance and ammunition:	
Medium/large caliber (20mm and larger)	☑ 10
Bombs, explosive	☐ 10
Grenades, hand or rifle, explosive	☐ 10
Landmine, explosive	☐ 10
Rockets, guided missile, explosive	☐ 10
Detonators, blasting caps, fuzes, boosters, bursters	☐ 6
Bombs, practice (w/spotting charges)	☐ 6
Grenades, practice (w/spotting charges)	☐ 4
Landmine, practice (w/spotting charges)	☐ 4
Small arms, complete round (.22 cal -.50 cal)	☐ 1
Small arms, expended	☐ 0
Practice ordnance (w/o spotting charges)	☐ 0

Conventional ordnance and ammunition (largest single value): 10

What evidence do you have regarding conventional unexploded ordnance?

The 1986 range regulation lists the area as a "fall area for spent ordnance which ricochet north of Second mountain". EOD interviews indicate multiple calls to the area during hunting

season to recover artillery projectiles.

B. The Values for Pyrotechnics (for munitions not described above):	**VALUE**
Munition (containers) containing White Phosphorus (WP) or other pyrophoric material (i.e.,spontaneously flammable)	☑ 10
Munition containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	☑ 6
Flares, signals, simulators, screening smokes (other than WP)	☐ 4

Pyrotechnics (select the single largest value): 10

What evidence do you have regarding pyrotechnics?

No specific EOD records of WP however, both WP and illumination projectiles are authorized in the 1986 range regulation.

C. Bulk High Explosives (HE) (not an integral part of conventional ordnance; uncontainerized):	**VALUE**
Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	☐ 10
Demolition charges	☐ 10
Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	☐ 8
Military dynamite	☐ 6
Less sensitive explosives (Ammonium Nitrate, Explosive D, etc.)	☐ 3

High explosives (select the single largest value): 0

What evidence do you have regarding bulk explosives?:

None found during site visit and document search.

D. Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance;	
Solid or liquid propellants	☐ 6

Propellants: 0

Artillery Ricochet Area

What evidence do you have regarding bulk propellants?

None found during site visit and document search.

E. Chemical Warfare Materiel (CWM) and Radiological Weapons:	**VALUE**
Toxic chemical agents (choking, nerve, blood, blister)	☐ 25
War Gas Identification Sets	☐ 20
Radiological	☐ 15
Riot Control Agents (vomiting, tear)	☐ 5

Chemical and Radiological (select the single largest value): *0*

What evidence do you have regarding chemical or radiological?

None found during site visit and document search.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E (maximum of 61): *20*

Apply this value to Table 1 to determine Hazard Severity Category

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY		HAZARD SEVERITY VALUE
CATASTROPHIC	I	☐	21 and/or greater
CRITICAL	II	☑	10 to 20
MARGINAL	III	☐	5 to 9
NEGLIGIBLE	IV	☐	1 to 4
**NONE	V	☐	0

*Apply Hazard Severity Category to Table 3

**If hazard severity value is 0, you do not need to complete Part II of this form. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

PART II. HAZARD PROBABILITY

The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance or explosive materials on the range/site.

AREA, EXTENT, ACCESSIBILITY OF OE HAZARD (Circle all that apply)

A. Locations of OE hazards	**VALUE**
On the surface	☑ 5
Within tanks, pipes, vessels, or other confined areas	☐ 4
Inside walls, ceilings, or other building/structure	☐ 3
Subsurface	☑ 2

Location (select the single largest value): 5

What evidence do you have regarding the location of OE?

EOD indicated surface projectiles are recovered in the hunting area often (10 - 20) calls per hunting season.

B. Distance to nearest inhabited location/structure likely to be at risk from OE hazard (road, park, playground, building, etc.)	**VALUE**
Less than 1,250 feet	☑ 5
1,250 feet to 0.5 mile	☐ 4
0.5 mile to 1.0 mile	☐ 3
1.0 mile to 2.0 Miles	☐ 2
Over 2 miles	☐ 1

Distance (select the single largest value): 5

What are the nearest inhabited structures/buildings?

The Artillery Ricochet Area is a State Game Land used by the public for hunting. The area is considered a park based on its usage for recreational hunting.

Artillery Ricochet Area

C. Number(s) of building(s) within a 2-mile radius measured from the OE hazard area, not the installation boundary.

26 and over	☐ 5
16 to 25	☐ 4
11 to 15	☐ 3
6 to 10	☐ 2
1 to 5	☐ 1
0	☑ 0

Number of buildings (select the single largest value): 0

Narrative:
Not Applicable

D. Types of Buildings (within a 2 mile radius)	**VALUE**
Educational, child care, residential, hospitals hotels, commercial, shopping centers	☐ 5
Industrial, warehouse, etc.	☐ 4
Agricultural, forestry, etc.	☐ 3
Detention, correctional	☐ 2
No buildings	☑ 0

Types of buildings (select the single largest value): 0

Describe the types of buildings:
Not Applicable

E. Accessibility to site refers to access by humans to ordnance and explosives. Use the following guidance: **VALUE**

Artillery Ricochet Area

No barrier nor security system	☑ 5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	☐ 4
A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	☐ 3
Security Guard, but no barrier.	☐ 2
Isolated site.	☐ 1
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area).	☐ 0

Accessibility (select the single largest value): 5

Describe the site accessibility:

No barrier - site is state Game Lands and is used by hunters on a regular basis during hunting season.

F. Site Dynamics. **VALUE**

This deals with site conditions are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase

Expected	☐ 5
None anticipated	☑ 0

Site Dynamics (select the single largest value): 0

Desc Dynamics:

None anticipated because the site is remote and in the heavily forested mountains. The site is also State Game Lands and is not expected to be developed.

TOTAL HAZARD PROBABILITY VALUE (sum of largest values for A through F (maximum of 30): 15

Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

TABLE 2
HAZARD PROBABILITY

DESCRIPTION	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☐	21 to 26
OCCASIONAL	C ☑	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

PART III. RISK ASSESSMENT

The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values. If the Hazard Severity value is zero (0), a Hazard Probability is not calculated and a RAC score of 5 is automatically assigned to the range or site.

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	☐ 1	☐ 1	☐ 2	☐ 3	☐ 4
CRITICAL II	☐ 1	☐ 2	☑ 3	☐ 4	☐ 5
MARGINABLE III	☐ 2	☐ 3	☐ 4	☐ 4	☐ 5
NEGLIGIBLE IV	☐ 3	☐ 4	☐ 4	☐ 5	☐ 5

RISK ASSESSMENT CODE (RAC)

Artillery Ricochet Area

☐ RAC 1 High Risk - Highest priority for further action.

☐ RAC 2 Serious Risk - Priority for further action.

☑ RAC 3 Moderate Risk - Recommend further action.

☐ RAC 4 Low Risk - Recommend further action.

☐ RAC 5 Negligible Risk - Indicates that no DoD action is necessary.

PART IV. NARRATIVE

Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made:

A RAC score of 3 is assigned to the area. Hunters frequent the State Game Land within the Artillery Ricochet Area. The EOD receives approximately 10-20 calls each hunting season about surface projectiles discovered by the hunters. There are no inhabited structures or facilities within a 2-mile radius of the area.

RISK ASSESSMENT CODE WORKSHEETS

Cold Spring Range Fan

Cold Spring Range Fan

RISK ASSESSMENT CODE WORKSHEETS

Site Name: Cold Spring Range Fan
Site Location: FORT INDIANTOWN GAP - ARNG
Date Completed: 11/8/02

Rater's Name: Denise Tegtmeyer
Phone: (410) 230-9963
Organization: MPI
Score: RAC 3

Explosive Relative Risk Assessment:
This risk assessment procedure was developed in accordance with Military Standard 882C and Army Regulation 385-10. The Risk Assessment Code (RAC) score will be used by DoD and the U.S. Army to assist in the prioritization and sequencing of projects. The risk assessment is based on the best available information resulting from the data collection effort of the CTT inventory. This information is used to assess the explosive relative risk involved with the CTT ranges/sites identified in this inventory. The risk assessment is composed of two factors, hazard severity and hazard probability.

PART I. HAZARD SEVERITY

Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of UXO.

TYPE OF ORDNANCE: (Circle all that apply)	**VALUE**
A. Conventional ordnance and ammunition:	
Medium/large caliber (20mm and larger)	☑ 10
Bombs, explosive	☐ 10
Grenades, hand or rifle, explosive	☐ 10
Landmine, explosive	☐ 10
Rockets, guided missile, explosive	☐ 10
Detonators, blasting caps, fuzes, boosters, bursters	☐ 6
Bombs, practice (w/spotting charges)	☐ 6
Grenades, practice (w/spotting charges)	☐ 4
Landmine, practice (w/spotting charges)	☐ 4
Small arms, complete round (.22 cal -.50 cal)	☐ 1
Small arms, expended	☐ 0
Practice ordnance (w/o spotting charges)	☐ 0

Conventional ordnance and ammunition (largest single value): 10

What evidence do you have regarding conventional unexploded ordnance?

Historic documents and interviews with installation personnel indicate that this area was once part of the range fan from an artillery firing area located at Cold Springs. The impact area for

the former range is believed to be located where the current impact area is today.

B. The Values for Pyrotechnics (for munitions not described above):	**VALUE**
Munition (containers) containing White Phosphorus (WP) or other pyrophoric material (i.e.,spontaneously flammable)	☑ 10
Munition containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	☑ 6
Flares, signals, simulators, screening smokes (other than WP)	☐ 4

Pyrotechnics (select the single largest value): *10*

What evidence do you have regarding pyrotechnics?

No specific evidence found regarding WP or illumination rounds from the range however, these rounds have been used at other parts of the installation and it is assumed they were used at the Cold Spring Range Fan Area as well.

C. Bulk High Explosives (HE) (not an integral part of conventional ordnance; uncontainerized):	**VALUE**
Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	☐ 10
Demolition charges	☐ 10
Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	☐ 8
Military dynamite	☐ 6
Less sensitive explosives (Ammonium Nitrate, Explosive D, etc.)	☐ 3

High explosives (select the single largest value): *0*

What evidence do you have regarding bulk explosives?:

None found during site visit and document search.

D. Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance;	
Solid or liquid propellants	☐ 6

Propellants: 0

What evidence do you have regarding bulk propellants?

None found during site visit and document search.

E. Chemical Warfare Materiel (CWM) and Radiological Weapons:	**VALUE**
Toxic chemical agents (choking, nerve, blood, blister)	☐ 25
War Gas Identification Sets	☐ 20
Radiological	☐ 15
Riot Control Agents (vomiting, tear)	☐ 5

Chemical and Radiological (select the single largest value): 0

What evidence do you have regarding chemical or radiological?

None found during site visit and document search.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E (maximum of 61): 20

Apply this value to Table 1 to determine Hazard Severity Category

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY		HAZARD SEVERITY VALUE
CATASTROPHIC	I	☐	21 and/or greater
CRITICAL	II	☑	10 to 20
MARGINAL	III	☐	5 to 9
NEGLIGIBLE	IV	☐	1 to 4
**NONE	V	☐	0

*Apply Hazard Severity Category to Table 3

**If hazard severity value is 0, you do not need to complete Part II of this form. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

PART II. HAZARD PROBABILITY

The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance or explosive materials on the range/site.

AREA, EXTENT, ACCESSIBILITY OF OE HAZARD (Circle all that apply)

A. Locations of OE hazards	**VALUE**
On the surface	☑ 5
Within tanks, pipes, vessels, or other confined areas	☐ 4
Inside walls, ceilings, or other building/structure	☐ 3
Subsurface	☑ 2

Location (select the single largest value): 5

What evidence do you have regarding the location of OE?

Interviews with EOD indicate that ordnance are routinely recovered there each year during hunting season.

B. Distance to nearest inhabited location/structure likely to be at risk from OE hazard (road, park, playground, building, etc.)	**VALUE**
Less than 1,250 feet	☑ 5
1,250 feet to 0.5 mile	☐ 4
0.5 mile to 1.0 mile	☐ 3
1.0 mile to 2.0 Miles	☐ 2
Over 2 miles	☐ 1

Distance (select the single largest value): 5

What are the nearest inhabited structures/buildings?

Since the area is part of the Sate Game Lands, the nearest inhabited structures would be located at Fort Indiantown Gap. However, the area is considered a park based on its use for recreational hunting.

C. Number(s) of building(s) within a 2-mile radius measured from the OE hazard area, not the installation boundary.

26 and over	☐ 5
16 to 25	☐ 4
11 to 15	☐ 3
6 to 10	☐ 2
1 to 5	☐ 1
0	☑ 0

Number of buildings (select the single largest value): 0

Narrative:
Not Applicable

D. Types of Buildings (within a 2 mile radius)	**VALUE**
Educational, child care, residential, hospitals hotels, commercial, shopping centers	☐ 5
Industrial, warehouse, etc.	☐ 4
Agricultural, forestry, etc.	☐ 3
Detention, correctional	☐ 2
No buildings	☑ 0

Types of buildings (select the single largest value): 0

Describe the types of buildings:
Not Applicable

E. Accessibility to site refers to access by humans to ordnance and explosives. Use the following guidance: **VALUE**

No barrier nor security system	☑ 5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	☐ 4
A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	☐ 3
Security Guard, but no barrier.	☐ 2
Isolated site.	☐ 1
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area).	☐ 0

Accessibility (select the single largest value): 5

Describe the site accessibility:

The area is part of the State Games Lands and is accessible by the public.

F. Site Dynamics. **VALUE**

This deals with site conditions are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase

Expected	☐ 5
None anticipated	☑ 0

Site Dynamics (select the single largest value): 0

Desc Dynamics:

None anticipated because the site is remote and in the heavily forested mountains.

TOTAL HAZARD PROBABILITY VALUE (sum of largest values for A through F (maximum of 30): 15

Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

TABLE 2
HAZARD PROBABILITY

DESCRIPTION	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☐	21 to 26
OCCASIONAL	C ☑	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

PART III. RISK ASSESSMENT

The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values. If the Hazard Severity value is zero (0), a Hazard Probability is not calculated and a RAC score of 5 is automatically assigned to the range or site.

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	☐ 1	☐ 1	☐ 2	☐ 3	☐ 4
CRITICAL II	☐ 1	☐ 2	☑ 3	☐ 4	☐ 5
MARGINABLE III	☐ 2	☐ 3	☐ 4	☐ 4	☐ 5
NEGLIGIBLE IV	☐ 3	☐ 4	☐ 4	☐ 5	☐ 5

RISK ASSESSMENT CODE (RAC)

☐ RAC 1 High Risk - Highest priority for further action.

☐ RAC 2 Serious Risk - Priority for further action.

☑ RAC 3 Moderate Risk - Recommend further action.

☐ RAC 4 Low Risk - Recommend further action.

☐ RAC 5 Negligible Risk - Indicates that no DoD action is necessary.

PART IV. NARRATIVE

Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made:

A RAC score of 3 is assigned to the Cold Spring Range Fan. Artillery was fired from Cold Springs to targets on Fort Indiantown Gap, and this area represents the off-post firing point and range fan associated with Cold Springs. The Cold Spring Range Fan is also overlapped by the Artillery Ricochet Area.

RISK ASSESSMENT CODE WORKSHEETS

Mt. Gretna Artillery Range

RISK ASSESSMENT CODE WORKSHEETS

Site Name: Mt. Gretna Artillery Range
Site Location: FORT INDIANTOWN GAP - ARNG
Date Completed: 8/19/03

Rater's Name: Denise Tegtmeyer
Phone: (410) 230-9963
Organization: MPI
Score: RAC 2

Explosive Relative Risk Assessment:
This risk assessment procedure was developed in accordance with Military Standard 882C and Army Regulation 385-10. The Risk Assessment Code (RAC) score will be used by DoD and the U.S. Army to assist in the prioritization and sequencing of projects. The risk assessment is based on the best available information resulting from the data collection effort of the CTT inventory. This information is used to assess the explosive relative risk involved with the CTT ranges/sites identified in this inventory. The risk assessment is composed of two factors, hazard severity and hazard probability.

PART I. HAZARD SEVERITY

Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of UXO.

TYPE OF ORDNANCE: (Circle all that apply)	**VALUE**
A. Conventional ordnance and ammunition:	
Medium/large caliber (20mm and larger)	☑ 10
Bombs, explosive	☐ 10
Grenades, hand or rifle, explosive	☐ 10
Landmine, explosive	☐ 10
Rockets, guided missile, explosive	☐ 10
Detonators, blasting caps, fuzes, boosters, bursters	☐ 6
Bombs, practice (w/spotting charges)	☐ 6
Grenades, practice (w/spotting charges)	☐ 4
Landmine, practice (w/spotting charges)	☐ 4
Small arms, complete round (.22 cal -.50 cal)	☐ 1
Small arms, expended	☐ 0
Practice ordnance (w/o spotting charges)	☐ 0

Conventional ordnance and ammunition (largest single value): 10

What evidence do you have regarding conventional unexploded ordnance?

Interviews with site personnel indicate that this areas was used as an artillery range.

B. The Values for Pyrotechnics (for munitions not described above): **VALUE**

Munition (containers) containing White Phosphorus (WP) or other pyrophoric material (i.e.,spontaneously flammable)	☐ 10
Munition containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	☐ 6
Flares, signals, simulators, screening smokes (other than WP)	☐ 4

Pyrotechnics (select the single largest value): *0*

What evidence do you have regarding pyrotechnics?

None found during site visit and document search.

C. Bulk High Explosives (HE) (not an integral part of conventional ordnance; uncontainerized): **VALUE**

Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	☐ 10
Demolition charges	☐ 10
Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	☐ 8
Military dynamite	☐ 6
Less sensitive explosives (Ammonium Nitrate, Explosive D, etc.)	☐ 3

High explosives (select the single largest value): *0*

What evidence do you have regarding bulk explosives?:

None found during site visit and document search.

D. Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance;

Solid or liquid propellants	☐ 6

Propellants: *0*

What evidence do you have regarding bulk propellants?

None found during site visit and document search.

E. Chemical Warfare Materiel (CWM) and Radiological Weapons:	**VALUE**
Toxic chemical agents (choking, nerve, blood, blister)	☐ 25
War Gas Identification Sets	☐ 20
Radiological	☐ 15
Riot Control Agents (vomiting, tear)	☐ 5

Chemical and Radiological (select the single largest value): 0

What evidence do you have regarding chemical or radiological?

None found during site visit and document search.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E (maximum of 61): 10

Apply this value to Table 1 to determine Hazard Severity Category

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY		HAZARD SEVERITY VALUE
CATASTROPHIC	I	☐	21 and/or greater
CRITICAL	II	☑	10 to 20
MARGINAL	III	☐	5 to 9
NEGLIGIBLE	IV	☐	1 to 4
**NONE	V	☐	0

*Apply Hazard Severity Category to Table 3

**If hazard severity value is 0, you do not need to complete Part II of this form. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

PART II. HAZARD PROBABILITY

The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance or explosive materials on the range/site.

AREA, EXTENT, ACCESSIBILITY OF OE HAZARD (Circle all that apply)

A. Locations of OE hazards	**VALUE**
On the surface	☑ 5
Within tanks, pipes, vessels, or other confined areas	☐ 4
Inside walls, ceilings, or other building/structure	☐ 3
Subsurface	☑ 2

Location (select the single largest value): 5

What evidence do you have regarding the location of OE?

Interviews with site personnel indicate that mortars have been found in the area.

B. Distance to nearest inhabited location/structure likely to be at risk from OE hazard (road, park, playground, building, etc.)	**VALUE**
Less than 1,250 feet	☑ 5
1,250 feet to 0.5 mile	☐ 4
0.5 mile to 1.0 mile	☐ 3
1.0 mile to 2.0 Miles	☐ 2
Over 2 miles	☐ 1

Distance (select the single largest value): 5

What are the nearest inhabited structures/buildings?

Private residences and commercial buildings are located within 1,250-feet of the former range.

C. Number(s) of building(s) within a 2-mile radius measured from the OE hazard area, not the installation boundary.

26 and over	☑ 5
16 to 25	☐ 4
11 to 15	☐ 3
6 to 10	☐ 2
1 to 5	☐ 1
0	☐ 0

Number of buildings (select the single largest value): 5

Narrative:

There are over 26 residential and commercial buildings within a 2-mile radius of the former range.

D. Types of Buildings (within a 2 mile radius)	**VALUE**
Educational, child care, residential, hospitals hotels, commercial, shopping centers	☑ 5
Industrial, warehouse, etc.	☐ 4
Agricultural, forestry, etc.	☑ 3
Detention, correctional	☐ 2
No buildings	☐ 0

Types of buildings (select the single largest value): 5

Describe the types of buildings:

There are numerous residential and commercial buildings within a 2-mile radius of the former range.

E. Accessibility to site refers to access by humans to ordnance and explosives. Use the following guidance: **VALUE**

No barrier nor security system	☑ 5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	☐ 4
A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	☐ 3
Security Guard, but no barrier.	☐ 2
Isolated site.	☐ 1
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area).	☐ 0

Accessibility (select the single largest value): 5

Describe the site accessibility:

No barriers exist at the site.

F. Site Dynamics. **VALUE**

This deals with site conditions are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase

Expected	☐ 5
None anticipated	☑ 0

Site Dynamics (select the single largest value): 0

Desc Dynamics:

The area is well established, so changes in land use are not anticipated.

TOTAL HAZARD PROBABILITY VALUE (sum of largest values for A through F (maximum of 30): 25

Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

TABLE 2
HAZARD PROBABILITY

DESCRIPTION	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☑	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

PART III. RISK ASSESSMENT

The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values. If the Hazard Severity value is zero (0), a Hazard Probability is not calculated and a RAC score of 5 is automatically assigned to the range or site.

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	☐ 1	☐ 1	☐ 2	☐ 3	☐ 4
CRITICAL II	☐ 1	☑ 2	☐ 3	☐ 4	☐ 5
MARGINABLE III	☐ 2	☐ 3	☐ 4	☐ 4	☐ 5
NEGLIGIBLE IV	☐ 3	☐ 4	☐ 4	☐ 5	☐ 5

RISK ASSESSMENT CODE (RAC)

☐ RAC 1 High Risk - Highest priority for further action.

☑ RAC 2 Serious Risk - Priority for further action.

☐ RAC 3 Moderate Risk - Recommend further action.

☐ RAC 4 Low Risk - Recommend further action.

☐ RAC 5 Negligible Risk - Indicates that no DoD action is necessary.

PART IV. NARRATIVE

Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made:

A RAC score of 2 is assigned to the former Mt. Gretna Artillery Range. A high RAC score is assigned because of the proximity of the former artillery range to residential and commercial areas.

RISK ASSESSMENT CODE WORKSHEETS

Mt. Gretna Machine Gun Range

Mt. Gretna Machine Gun Range

RISK ASSESSMENT CODE WORKSHEETS

Site Name: Mt. Gretna Machine Gun Range

Site Location: FORT INDIANTOWN GAP - ARNG

Date Completed: 8/18/03

Rater's Name: Denise Tegtmeyer

Phone: (410) 230-9963

Organization: MPI

Score: RAC 5

Explosive Relative Risk Assessment:

This risk assessment procedure was developed in accordance with Military Standard 882C and Army Regulation 385-10. The Risk Assessment Code (RAC) score will be used by DoD and the U.S. Army to assist in the prioritization and sequencing of projects. The risk assessment is based on the best available information resulting from the data collection effort of the CTT inventory. This information is used to assess the explosive relative risk involved with the CTT ranges/sites identified in this inventory. The risk assessment is composed of two factors, hazard severity and hazard probability.

PART I. HAZARD SEVERITY

Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of UXO.

TYPE OF ORDNANCE: (Circle all that apply)	**VALUE**
A. Conventional ordnance and ammunition:	
Medium/large caliber (20mm and larger)	☐ 10
Bombs, explosive	☐ 10
Grenades, hand or rifle, explosive	☐ 10
Landmine, explosive	☐ 10
Rockets, guided missile, explosive	☐ 10
Detonators, blasting caps, fuzes, boosters, bursters	☐ 6
Bombs, practice (w/spotting charges)	☐ 6
Grenades, practice (w/spotting charges)	☐ 4
Landmine, practice (w/spotting charges)	☐ 4
Small arms, complete round (.22 cal -.50 cal)	☐ 1
Small arms, expended	☑ 0
Practice ordnance (w/o spotting charges)	☐ 0

Conventional ordnance and ammunition (largest single value): 0

What evidence do you have regarding conventional unexploded ordnance?

Interviews with installation personnel and historic maps indicate that this range was used for small arms training.

B. The Values for Pyrotechnics (for munitions not described above): **VALUE**

Munition (containers) containing White Phosphorus (WP) or other pyrophoric material (i.e.,spontaneously flammable)	☐ 10
Munition containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	☐ 6
Flares, signals, simulators, screening smokes (other than WP)	☐ 4

Pyrotechnics (select the single largest value): *0*

What evidence do you have regarding pyrotechnics?

None found during site visit and document search.

C. Bulk High Explosives (HE) (not an integral part of conventional ordnance; uncontainerized): **VALUE**

Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	☐ 10
Demolition charges	☐ 10
Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	☐ 8
Military dynamite	☐ 6
Less sensitive explosives (Ammonium Nitrate, Explosive D, etc.)	☐ 3

High explosives (select the single largest value): *0*

What evidence do you have regarding bulk explosives?:

None found during site visit and document search.

D. Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance;

Solid or liquid propellants	☐ 6

Propellants: *0*

What evidence do you have regarding bulk propellants?

None found during site visit and document search.

Mt. Gretna Machine Gun Range

E. Chemical Warfare Materiel (CWM) and Radiological Weapons:	**VALUE**
Toxic chemical agents (choking, nerve, blood, blister)	☐ 25
War Gas Identification Sets	☐ 20
Radiological	☐ 15
Riot Control Agents (vomiting, tear)	☐ 5

Chemical and Radiological (select the single largest value): 0

What evidence do you have regarding chemical or radiological?

None found during site visit and document search.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E (maximum of 61): 0

Apply this value to Table 1 to determine Hazard Severity Category

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY		HAZARD SEVERITY VALUE
CATASTROPHIC	I	☐	21 and/or greater
CRITICAL	II	☐	10 to 20
MARGINAL	III	☐	5 to 9
NEGLIGIBLE	IV	☐	1 to 4
**NONE	V	☑	0

*Apply Hazard Severity Category to Table 3

**If hazard severity value is 0, you do not need to complete Part II of this form. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

PART II. HAZARD PROBABILITY

The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance or explosive materials on the range/site.

AREA, EXTENT, ACCESSIBILITY OF OE HAZARD (Circle all that apply)

A. Locations of OE hazards	**VALUE**
On the surface	☐ 5
Within tanks, pipes, vessels, or other confined areas	☐ 4
Inside walls, ceilings, or other building/structure	☐ 3
Subsurface	☐ 2

Location (select the single largest value): *0*

What evidence do you have regarding the location of OE?

Not Applicable

B. Distance to nearest inhabited location/structure likely to be at risk from OE hazard (road, park, playground, building, etc.)	**VALUE**
Less than 1,250 feet	☐ 5
1,250 feet to 0.5 mile	☐ 4
0.5 mile to 1.0 mile	☐ 3
1.0 mile to 2.0 Miles	☐ 2
Over 2 miles	☐ 1

Distance (select the single largest value): *0*

What are the nearest inhabited structures/buildings?

Not Applicable

C. Number(s) of building(s) within a 2-mile radius measured from the OE hazard area, not the installation boundary.

26 and over	☐ 5
16 to 25	☐ 4
11 to 15	☐ 3
6 to 10	☐ 2
1 to 5	☐ 1
0	☐ 0

Number of buildings (select the single largest value): 0

Narrative:
Not Applicable

D. Types of Buildings (within a 2 mile radius)	**VALUE**
Educational, child care, residential, hospitals hotels, commercial, shopping centers	☐ 5
Industrial, warehouse, etc.	☐ 4
Agricultural, forestry, etc.	☐ 3
Detention, correctional	☐ 2
No buildings	☐ 0

Types of buildings (select the single largest value): 0

Describe the types of buildings:
Not Applicable

E. Accessibility to site refers to access by humans to ordnance and explosives. Use the following guidance: **VALUE**

No barrier nor security system ☐ 5

Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing. ☐ 4

A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site. ☐ 3

Security Guard, but no barrier. ☐ 2

Isolated site. ☐ 1

A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area). ☐ 0

Accessibility (select the single largest value): 0

Describe the site accessibility:

Not Applicable

F. Site Dynamics. **VALUE**

This deals with site conditions are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase

Expected ☐ 5

None anticipated ☐ 0

Site Dynamics (select the single largest value): 0

Desc Dynamics:

Not Applicable

TOTAL HAZARD PROBABILITY VALUE (sum of largest values for A through F (maximum of 30): 0

Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

TABLE 2
HAZARD PROBABILITY

DESCRIPTION	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☐	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

PART III. RISK ASSESSMENT

The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values. If the Hazard Severity value is zero (0), a Hazard Probability is not calculated and a RAC score of 5 is automatically assigned to the range or site.

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	☐ 1	☐ 1	☐ 2	☐ 3	☐ 4
CRITICAL II	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
MARGINABLE III	☐ 2	☐ 3	☐ 4	☐ 4	☐ 5
NEGLIGIBLE IV	☐ 3	☐ 4	☐ 4	☐ 5	☐ 5

RISK ASSESSMENT CODE (RAC)

☐ RAC 1 High Risk - Highest priority for further action.

☐ RAC 2 Serious Risk - Priority for further action.

☐ RAC 3 Moderate Risk - Recommend further action.

☐ RAC 4 Low Risk - Recommend further action.

☑ RAC 5 Negligible Risk - Indicates that no DoD action is necessary.

PART IV. NARRATIVE

Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made:

A RAC score of 5 is assigned to the Mt. Gretna Machine Gun Range because it was used for small arms training.

RISK ASSESSMENT CODE WORKSHEETS

Mt. Gretna Pistol Range

RISK ASSESSMENT CODE WORKSHEETS

Site Name: Mt. Gretna Pistol Range
Site Location: FORT INDIANTOWN GAP - ARNG
Date Completed: 8/18/03

Rater's Name: Denise Tegtmeyer
Phone: (410) 230-9963
Organization: MPI
Score: RAC 5

Explosive Relative Risk Assessment:
This risk assessment procedure was developed in accordance with Military Standard 882C and Army Regulation 385-10. The Risk Assessment Code (RAC) score will be used by DoD and the U.S. Army to assist in the prioritization and sequencing of projects. The risk assessment is based on the best available information resulting from the data collection effort of the CTT inventory. This information is used to assess the explosive relative risk involved with the CTT ranges/sites identified in this inventory. The risk assessment is composed of two factors, hazard severity and hazard probability.

PART I. HAZARD SEVERITY

Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of UXO.

TYPE OF ORDNANCE: (Circle all that apply)	**VALUE**
A. Conventional ordnance and ammunition:	
Medium/large caliber (20mm and larger)	☐ 10
Bombs, explosive	☐ 10
Grenades, hand or rifle, explosive	☐ 10
Landmine, explosive	☐ 10
Rockets, guided missile, explosive	☐ 10
Detonators, blasting caps, fuzes, boosters, bursters	☐ 6
Bombs, practice (w/spotting charges)	☐ 6
Grenades, practice (w/spotting charges)	☐ 4
Landmine, practice (w/spotting charges)	☐ 4
Small arms, complete round (.22 cal -.50 cal)	☐ 1
Small arms, expended	☑ 0
Practice ordnance (w/o spotting charges)	☐ 0

Conventional ordnance and ammunition (largest single value): 0

What evidence do you have regarding conventional unexploded ordnance?

Interviews with site personnel and historic maps indicate that this range was used for small arms training.

B. The Values for Pyrotechnics (for munitions not described above): **VALUE**

Munition (containers) containing White Phosphorus (WP) or other pyrophoric material (i.e.,spontaneously flammable)	☐ 10
Munition containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	☐ 6
Flares, signals, simulators, screening smokes (other than WP)	☐ 4

Pyrotechnics (select the single largest value): *0*

What evidence do you have regarding pyrotechnics?

None found during site visit and document search.

C. Bulk High Explosives (HE) (not an integral part of conventional ordnance; uncontainerized): **VALUE**

Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	☐ 10
Demolition charges	☐ 10
Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	☐ 8
Military dynamite	☐ 6
Less sensitive explosives (Ammonium Nitrate, Explosive D, etc.)	☐ 3

High explosives (select the single largest value): *0*

What evidence do you have regarding bulk explosives?:

None found during site visit and document search.

D. Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance;

Solid or liquid propellants	☐ 6

Propellants: *0*

What evidence do you have regarding bulk propellants?

None found during site visit and document search.

E. Chemical Warfare Materiel (CWM) and Radiological Weapons:	**VALUE**
Toxic chemical agents (choking, nerve, blood, blister)	☐ 25
War Gas Identification Sets	☐ 20
Radiological	☐ 15
Riot Control Agents (vomiting, tear)	☐ 5

Chemical and Radiological (select the single largest value): 0

What evidence do you have regarding chemical or radiological?

None found during site visit and document search.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E (maximum of 61): 0

Apply this value to Table 1 to determine Hazard Severity Category

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY		HAZARD SEVERITY VALUE
CATASTROPHIC	I	☐	21 and/or greater
CRITICAL	II	☐	10 to 20
MARGINAL	III	☐	5 to 9
NEGLIGIBLE	IV	☐	1 to 4
**NONE	V	☑	0

*Apply Hazard Severity Category to Table 3
**If hazard severity value is 0, you do not need to complete Part II of this form. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

PART II. HAZARD PROBABILITY

The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance or explosive materials on the range/site.

AREA, EXTENT, ACCESSIBILITY OF OE HAZARD (Circle all that apply)

A. Locations of OE hazards	**VALUE**
On the surface	☐ 5
Within tanks, pipes, vessels, or other confined areas	☐ 4
Inside walls, ceilings, or other building/structure	☐ 3
Subsurface	☐ 2

Location (select the single largest value): *0*

What evidence do you have regarding the location of OE?

Not Applicable

B. Distance to nearest inhabited location/structure likely to be at risk from OE hazard (road, park, playground, building, etc.)	**VALUE**
Less than 1,250 feet	☐ 5
1,250 feet to 0.5 mile	☐ 4
0.5 mile to 1.0 mile	☐ 3
1.0 mile to 2.0 Miles	☐ 2
Over 2 miles	☐ 1

Distance (select the single largest value): *0*

What are the nearest inhabited structures/buildings?

Not Applicable

C. Number(s) of building(s) within a 2-mile radius measured from the OE hazard area, not the installation boundary.

26 and over	☐ 5
16 to 25	☐ 4
11 to 15	☐ 3
6 to 10	☐ 2
1 to 5	☐ 1
0	☐ 0

Number of buildings (select the single largest value): *0*

Narrative:
Not Applicable

D. Types of Buildings (within a 2 mile radius)	**VALUE**
Educational, child care, residential, hospitals hotels, commercial, shopping centers	☐ 5
Industrial, warehouse, etc.	☐ 4
Agricultural, forestry, etc.	☐ 3
Detention, correctional	☐ 2
No buildings	☐ 0

Types of buildings (select the single largest value): *0*

Describe the types of buildings:
Not Applicable

E. Accessibility to site refers to access by humans to ordnance and explosives. Use the following guidance: **VALUE**

No barrier nor security system ☐ 5

Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing. ☐ 4

A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site. ☐ 3

Security Guard, but no barrier. ☐ 2

Isolated site. ☐ 1

A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area). ☐ 0

Accessibility (select the single largest value): 0

Describe the site accessibility:

Not Applicable

F. Site Dynamics. **VALUE**

This deals with site conditions are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase

Expected ☐ 5

None anticipated ☐ 0

Site Dynamics (select the single largest value): 0

Desc Dynamics:

Not Applicable

TOTAL HAZARD PROBABILITY VALUE (sum of largest values for A through F (maximum of 30): 0

Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

TABLE 2
HAZARD PROBABILITY

DESCRIPTION	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☐	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

PART III. RISK ASSESSMENT

The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values. If the Hazard Severity value is zero (0), a Hazard Probability is not calculated and a RAC score of 5 is automatically assigned to the range or site.

TABLE 3

PROBABILITY LEVEL / SEVERITY CATEGORY:	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
CATASTROPHIC I	☐ 1	☐ 1	☐ 2	☐ 3	☐ 4
CRITICAL II	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
MARGINABLE III	☐ 2	☐ 3	☐ 4	☐ 4	☐ 5
NEGLIGIBLE IV	☐ 3	☐ 4	☐ 4	☐ 5	☐ 5

RISK ASSESSMENT CODE (RAC)

☐ RAC 1 High Risk - Highest priority for further action.

☐ RAC 2 Serious Risk - Priority for further action.

☐ RAC 3 Moderate Risk - Recommend further action.

☐ RAC 4 Low Risk - Recommend further action.

☑ RAC 5 Negligible Risk - Indicates that no DoD action is necessary.

PART IV. NARRATIVE

Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made:

A RAC score of 5 is assigned to the former Mt. Gretna Pistol Range because it was used for small arms training.

RISK ASSESSMENT CODE WORKSHEETS

Mt. Gretna Rifle Range

Mt. Gretna Rifle Range

RISK ASSESSMENT CODE WORKSHEETS

Site Name: Mt. Gretna Rifle Range
Site Location: FORT INDIANTOWN GAP - ARNG
Date Completed: 8/18/03

Rater's Name: Denise Tegtmeyer
Phone: (410) 230-9963
Organization: MPI
Score: RAC 5

Explosive Relative Risk Assessment:
This risk assessment procedure was developed in accordance with Military Standard 882C and Army Regulation 385-10. The Risk Assessment Code (RAC) score will be used by DoD and the U.S. Army to assist in the prioritization and sequencing of projects. The risk assessment is based on the best available information resulting from the data collection effort of the CTT inventory. This information is used to assess the explosive relative risk involved with the CTT ranges/sites identified in this inventory. The risk assessment is composed of two factors, hazard severity and hazard probability.

PART I. HAZARD SEVERITY

Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of UXO.

TYPE OF ORDNANCE: (Circle all that apply)	**VALUE**
A. Conventional ordnance and ammunition:	
Medium/large caliber (20mm and larger)	☐ 10
Bombs, explosive	☐ 10
Grenades, hand or rifle, explosive	☐ 10
Landmine, explosive	☐ 10
Rockets, guided missile, explosive	☐ 10
Detonators, blasting caps, fuzes, boosters, bursters	☐ 6
Bombs, practice (w/spotting charges)	☐ 6
Grenades, practice (w/spotting charges)	☐ 4
Landmine, practice (w/spotting charges)	☐ 4
Small arms, complete round (.22 cal -.50 cal)	☐ 1
Small arms, expended	☑ 0
Practice ordnance (w/o spotting charges)	☐ 0

Conventional ordnance and ammunition (largest single value): 0

What evidence do you have regarding conventional unexploded ordnance?

Personnel interviewed and historic recordsindicate that this range was used for small arms training.

B. The Values for Pyrotechnics (for munitions not described above): **VALUE**

Munition (containers) containing White Phosphorus (WP) or other pyrophoric material (i.e.,spontaneously flammable)	☐ 10
Munition containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	☐ 6
Flares, signals, simulators, screening smokes (other than WP)	☐ 4

Pyrotechnics (select the single largest value): *0*

What evidence do you have regarding pyrotechnics?

None found during site visit and document search.

C. Bulk High Explosives (HE) (not an integral part of conventional ordnance; uncontainerized): **VALUE**

Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	☐ 10
Demolition charges	☐ 10
Secondary explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	☐ 8
Military dynamite	☐ 6
Less sensitive explosives (Ammonium Nitrate, Explosive D, etc.)	☐ 3

High explosives (select the single largest value): *0*

What evidence do you have regarding bulk explosives?:

None found during site visit and document search.

D. Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance;

Solid or liquid propellants	☐ 6

Propellants: *0*

What evidence do you have regarding bulk propellants?

None found during site visit and document search.

E. Chemical Warfare Materiel (CWM) and Radiological Weapons:	**VALUE**
Toxic chemical agents (choking, nerve, blood, blister)	☐ 25
War Gas Identification Sets	☐ 20
Radiological	☐ 15
Riot Control Agents (vomiting, tear)	☐ 5

Chemical and Radiological (select the single largest value): 0

What evidence do you have regarding chemical or radiological?

None found during site visit and document search.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E (maximum of 61): 0

Apply this value to Table 1 to determine Hazard Severity Category

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY		HAZARD SEVERITY VALUE
CATASTROPHIC	I	☐	21 and/or greater
CRITICAL	II	☐	10 to 20
MARGINAL	III	☐	5 to 9
NEGLIGIBLE	IV	☐	1 to 4
**NONE	V	☑	0

*Apply Hazard Severity Category to Table 3
**If hazard severity value is 0, you do not need to complete Part II of this form. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

PART II. HAZARD PROBABILITY

The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance or explosive materials on the range/site.

AREA, EXTENT, ACCESSIBILITY OF OE HAZARD (Circle all that apply)

A. Locations of OE hazards	**VALUE**
On the surface	☐ 5
Within tanks, pipes, vessels, or other confined areas	☐ 4
Inside walls, ceilings, or other building/structure	☐ 3
Subsurface	☐ 2

Location (select the single largest value): 0

What evidence do you have regarding the location of OE?

Not Applicable

B. Distance to nearest inhabited location/structure likely to be at risk from OE hazard (road, park, playground, building, etc.)	**VALUE**
Less than 1,250 feet	☐ 5
1,250 feet to 0.5 mile	☐ 4
0.5 mile to 1.0 mile	☐ 3
1.0 mile to 2.0 Miles	☐ 2
Over 2 miles	☐ 1

Distance (select the single largest value): 0

What are the nearest inhabited structures/buildings?

Not Applicable

C. Number(s) of building(s) within a 2-mile radius measured from the OE hazard area, not the installation boundary.

26 and over	☐ 5
16 to 25	☐ 4
11 to 15	☐ 3
6 to 10	☐ 2
1 to 5	☐ 1
0	☐ 0

Number of buildings (select the single largest value): *0*

Narrative:
Not Applicable

D. Types of Buildings (within a 2 mile radius)	**VALUE**
Educational, child care, residential, hospitals hotels, commercial, shopping centers	☐ 5
Industrial, warehouse, etc.	☐ 4
Agricultural, forestry, etc.	☐ 3
Detention, correctional	☐ 2
No buildings	☐ 0

Types of buildings (select the single largest value): *0*

Describe the types of buildings:
Not Applicable

E. Accessibility to site refers to access by humans to ordnance and explosives. Use the following guidance: **VALUE**

No barrier nor security system ☐ 5

Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing. ☐ 4

A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site. ☐ 3

Security Guard, but no barrier. ☐ 2

Isolated site. ☐ 1

A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area). ☐ 0

Accessibility (select the single largest value): 0

Describe the site accessibility:

Not Applicable

F. Site Dynamics. **VALUE**

This deals with site conditions are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase

Expected ☐ 5

None anticipated ☐ 0

Site Dynamics (select the single largest value): 0

Desc Dynamics:

Not Applicable

TOTAL HAZARD PROBABILITY VALUE (sum of largest values for A through F (maximum of 30): 0

Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

Mt. Gretna Rifle Range

TABLE 2
HAZARD PROBABILITY

DESCRIPTION	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☐	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

PART III. RISK ASSESSMENT

The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values. If the Hazard Severity value is zero (0), a Hazard Probability is not calculated and a RAC score of 5 is automatically assigned to the range or site.

TABLE 3

PROBABILITY LEVEL / SEVERITY CATEGORY:	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
CATASTROPHIC I	☐ 1	☐ 1	☐ 2	☐ 3	☐ 4
CRITICAL II	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
MARGINABLE III	☐ 2	☐ 3	☐ 4	☐ 4	☐ 5
NEGLIGIBLE IV	☐ 3	☐ 4	☐ 4	☐ 5	☐ 5

RISK ASSESSMENT CODE (RAC)

☐ RAC 1 High Risk - Highest priority for further action.

☐ RAC 2 Serious Risk - Priority for further action.

☐ RAC 3 Moderate Risk - Recommend further action.

☐ RAC 4 Low Risk - Recommend further action.

☑ RAC 5 Negligible Risk - Indicates that no DoD action is necessary.

PART IV. NARRATIVE

Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made:

A RAC score of 5 is assigned to the former Mt. Gretna Rifle Range because it was used for small arms traing.

H. DIGITAL FILES

Compact discs are attached to this section of the report[1] which contain the Phase 3 inventory electronic ARID, GIS, and map files. The compact discs also include the Phase 2 inventory electronic GIS files.

[1] Digital files are not included in the Draft Report.

I. DOCUMENT LOG

Reports

Bitner, Jack. "Mt. Gretna, A Coleman Legacy." Lebanon County Historical Society, 1990.

Pennsylvania Army National Guard. "Integrated Cultural Resources Management Plan, 2001-2006, and Environmental Assessment in Support of The Pennsylvania Army National Guard (PAARNG) and Activities at PAARNG-Managed Facilities throughout the State of Pennsylvania." April 2002.

U.S. Army Fort Indiantown Gap. "Safety Range Regulation Fort Indiantown Gap Regulation 385-1". 1 October 1986.

U.S. Army Toxic and Hazardous Materials Agency. "Installation Assessment of Fort Indiantown Gap, Annville, PA., and the Subinstallation, Oakdale Support Element, Oakdale, PA., Report No. 317." April 1982.

Maps

Army Map Service, Corps of Engineers, Department of the Army, 1948. "Indiantown Gap Mil. Res., Pennsylvania."

Defense Mapping Agency Hydrographic/Topographic Center, 1977. "Indiantown Gap Military Installation Map."

Indiantown Gap Military Installation Map, Military Overprint Information as of January 1984.

U. S. Geological Survey, Middletown, Pennsylvania. 1950 Aerial Map.

Interviews

Mr. John Fronko, Environmental Planning Supervisor, Department of Military and Veterans Affairs, Environmental Division. Fort Indiantown Gap, Pennsylvania.

Mr. Tony Hassler, Environmental Compliance Officer, ECAS Manager, Department of Military and Veterans Affairs, Bureau of Facilities and Engineering. Fort Indiantown Gap, Pennsylvania.

Major William C. Yearwood, Operations Officer. Fort Indiantown Gap, Pennsylvania.

Mr. Robert Gustitus, Real Estate Representative, Department of Military and Veteran Affairs, State Armory Board. Fort Indiantown Gap, Pennsylvania.

Mr. Robert Reeder, GIS Coordinator. Fort Indiantown Gap, Pennsylvania.

Ms. Nancy Nelson, Real Estate Technician, Department of Military and Veteran Affairs, State Armory Board. Fort Indiantown Gap, Pennsylvania.

SGT George Allen and SGT Mike Fields, 756th Ordnance Company (Explosive Ordnance Disposal). Fort Indiantown Gap, Pennsylvania.

J. NOTES

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
INDEPENDENT ENVIRONMENTAL ENGINEERS, SCIENTISTS & CONSULTANTS

October 24, 2003

Ms. Ann Wood

U.S. Army Corps of Engineers, Baltimore District
10 South Howard St.
CENAB-EN-HM (Attn: A. Wood RM 10000-F)
Baltimore, MD 21201

Re: Final CTT Range/Site Inventory Report, Fort Indiantown Gap, PA
FFID: PA214020444
Army Range Inventory
Contract DACA-31-00-D-0043
Delivery Order No. 7

Dear Ms. Wood:

Malcolm Pirnie is pleased to provide to the Baltimore District this **Final Closed, Transferred, and Transferring (CTT) Range/Site Report, Fort Indiantown Gap, Pennsylvania**. In total 4 copies of the Draft Report have been provided.

Comments on the Revised Draft Report received form the Baltimore District, Huntsville District, the Army Environmental Center, National Guard Bureau, and Fort Indiantown Gap have been incorporated into the Final Report.

Please call me at 410-230-9962 if you have any questions or comments.

Very truly yours,

Jonathan Sperka
MALCOLM PIRNIE, INC.
Team Leader

CC: Fort Indiantown Gap – Mr. Tony Hassler (1 copy)
AEC – Mr. Samuel Bryant (1 copy)
NGB – Mr. Fran Coulters (1 copy)
USACE Huntsville – Mr. James Manthey (1 copy)