



**US Army Corps
of Engineers
HUNTSVILLE DIVISION**

**Defense Environmental Restoration Program
for
Formerly Used Defense Sites**

**Ordnance and Explosive Waste
Chemical Warfare Materials**

ARCHIVES SEARCH REPORT

CHOPAWAMSIC TROOP TRAINING SITE

Prince William County, Virginia

Project Number - C03VA019401

FINAL - 24 April 1997

**Prepared by
US ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT**



DEPARTMENT OF THE ARMY
HUNTSVILLE CENTER, CORPS OF ENGINEERS
P.O. BOX 1600
HUNTSVILLE, ALABAMA 35807-4301

REPLY TO
ATTENTION OF:
CEHNC-OE-AI

24 April 1997

MEMORANDUM FOR Commander, U.S. Army Engineer District, St. Louis
ATTN: CELMS-PM-M (Mr. Mike Dace), 1222 Spruce
Street, St. Louis, MO 63103-2833

SUBJECT: Results of Technical Advisory Group (TAG) Review of
Archives Search Reports (ASR) and Fact Sheets for Defense
Environmental Restoration Program-Formerly Used Defense Sites
(DERP-FUDS). The following ASRs and Fact Sheets have been
finalized:

<u>Project Number:</u>	<u>Site:</u>
J09CA076600	Camp Beale
J09CA013600	Camp Beale and Beale Air Force Base
B07NE006201	McCook Precision Bombing Range No. 2
B08SD086401	Rapid City Air-To-Ground Gunnery Range
F10WA028100	Ephrata Army Air Field
K06NM044501	Kirtland Air Force Base Precision Bombing Ranges N-1, N-3, N-4 and "New" Demolitions
C03VA019402	Chopawasmic Troop Training Site
E05MI000600	Fort Custer
E05MI001303	Fort Custer Recreation Area
J09CA026201	Cadiz Lake Sonic Target # 8

1. Recommended strategy for future actions to be taken by the Project Manager is included in attached fact sheets. Supporting data from TAG decisions is also included with the fact sheets.
2. Fact sheets and supporting data are to be distributed with the subject ASRs.
3. Subject ASRs are considered to be final when attached fact sheets and supporting data are included as a part of the project package.
4. The POC is Mr. Danny Mardis at 205-895-1797, DSN 760-1797, and FAX 205-895-1737.

FOR THE DIRECTOR OF ORDNANCE
AND EXPLOSIVES TEAM:

Encls

Danny R. Mardis
DANNY R. MARDIS
Archive Search Report Manager
for Ordnance and Explosives Team

DISCLAIMER

The purpose of this archives search report is to present the findings of research undertaken for this specific Formerly Used Defense Site (FUDS) property. All of the factual information found during the research is included in this "Findings" volume. Reference may be made in this volume to a separate "Conclusions and Recommendations" volume. In some instances, the Conclusions and Recommendations volume contained recommendations of individuals performing the analysis that may contain inferences or conjecture not supported in subsequent reviews. Because these statements are not always factual in nature, the US Army Corps of Engineers has determined the Conclusions and Recommendations volumes, where they exist, do not necessarily represent the opinion of the USACE and are not available for public release.

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT**
for the former
CHOPAWAMSIC TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401

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1.0 Introduction

1.1 Authority

In 1986, Congress established the Defense Environmental Restoration Program at 10 U.S.C. 2701 et.seq. This program directed the Secretary of Defense to "carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary. "

In March, 1990, the EPA issued a revised National Contingency Plan. Under 40 C.F.R. 300.120, EPA designated DOD to be the removal response authority for incidents involving DoD military weapons and munitions under the jurisdiction custody and control of DoD.

Since the beginning of this program, the U.S. Army Corps of Engineers has been the agency responsible for environmental restoration at Formerly-Used Defense Sites (FUDS). Since 1990t the U.S. Army Engineering and Support Center, Huntsville has been the Mandatory Center of Expertise and Design Center for Ordnance and Explosives.

1.2 Subject

The former Chopawamsic Troop Training Site was a World War II era installation used for the training of counter intelligence agents of the Office of Strategic Service (OSS). The site, consisting of 11,011.23 acres, tends westward from Interstate 95 and is bordered by the U.S. Marine Corps Reservation, Quantico on the south and State Route 234 on the north. The site is currently a portion of the National Park Service's (NPS) Prince William Forest Park (PWFP).

1.3 Purpose

This Archives Search Report (ASR) compiles information obtained through historical research at various archives and records holding facilities, interviews with persons associated with the site or its operations, and personal visits to the site. All efforts were directed towards determining possible use or disposal of ordnance and explosive materials on the site. Particular emphasis was placed on establishing the type of munitions, quantities and area of disposal. Information obtained during this process was used in developing recommendations for further actions at the site.

1.4 Scope

Only that portion of the PWFP that comprised the former military installation was evaluated in assessing the potential for ordnance and explosive waste contamination. The correct Project Number is C03VA019401.

This report presents the history of the site, description and characterization of the immediate surrounding area, real estate ownership information, findings of a visual field survey, and OEW (CWM) site analysis, including an evaluation of potential ordnance contamination. A separate Executive Summary supplements these ASR FINDINGS and furnishes CONCLUSIONS and RECOMMENDATIONS.

2.0 Previous Site Investigations

2.1 Findings and Determination of Eligibility

Under the Defense Environmental Restoration Program (DERP), the Norfolk District prepared a Findings and Determination of Eligibility (FDE), for the subject Chopwamsic Troop Training Site. The FDE indicates that the site, consisting of 11,011.23 acres, was acquired by the Army in 1942 by use permit and condemnation. The entire site was placed in the custody of the National Park Service in 1948. The report determined that the site was eligible for the Defense Environmental Restoration Program for Formerly Used Defense Sites.

Completion of the Risk Assessment Code (RAC) Procedures form resulted in a RAC of 3 for the site. However, the Norfolk District presented a justification to reduce their proposed OEW project to a RAC of 4. A copy of the above listed FDEs are included at Appendix C.

2.2 Prince William Forest Park, An Administrative History

This document, written in 1986 by Susan Cary Strickland of the History Division, National Park Service, Department of the Interior, Washington, D.C., provides a detailed account of the Park's development. Included is information on the military occupation of the Park, cooperation with the OSS, site selection, early development and growth. The major emphasis is on the political impacts of the original development, and government land acquisition, funding, community relations, and management are detailed.

3.0 Site and Site Area Description

3.1 Location

The former Chopawamsic Troop Training Site is located approximately 35 miles south of Washington D.C., in Prince William County, Virginia. Now referred to as Prince William Forest Park, the site is roughly bounded by Route 619 on the south and west, Route 234 to the north, and Interstate 95 to the east.

3.2 Past Uses

Prior to U.S. Government acquisition, the land was used for agricultural and mining operations. The Army utilized the site for the training counter intelligence agents for the OSS. Improvements by the Army included personnel and maintenance support facilities, several ranges, and two magazines.

3.3 Current Uses

The site currently constitutes the major portion of the Prince William Forest Park which serves as picnic and camping grounds as well as a national forest reserve.

3.4 Demographics of the Area

3.4.1 Center of Activity

Chopawamsic Training Annex is located in Prince William County, Virginia. This community has numerous centers of activity such as the Center for the Arts, Historic Prince William, Inc., Manassas Art Guild, and the Prince William Symphony Orchestra, and various parks located throughout the community. Information comes from both phone conversations and Prince William County demographic fact sheet.

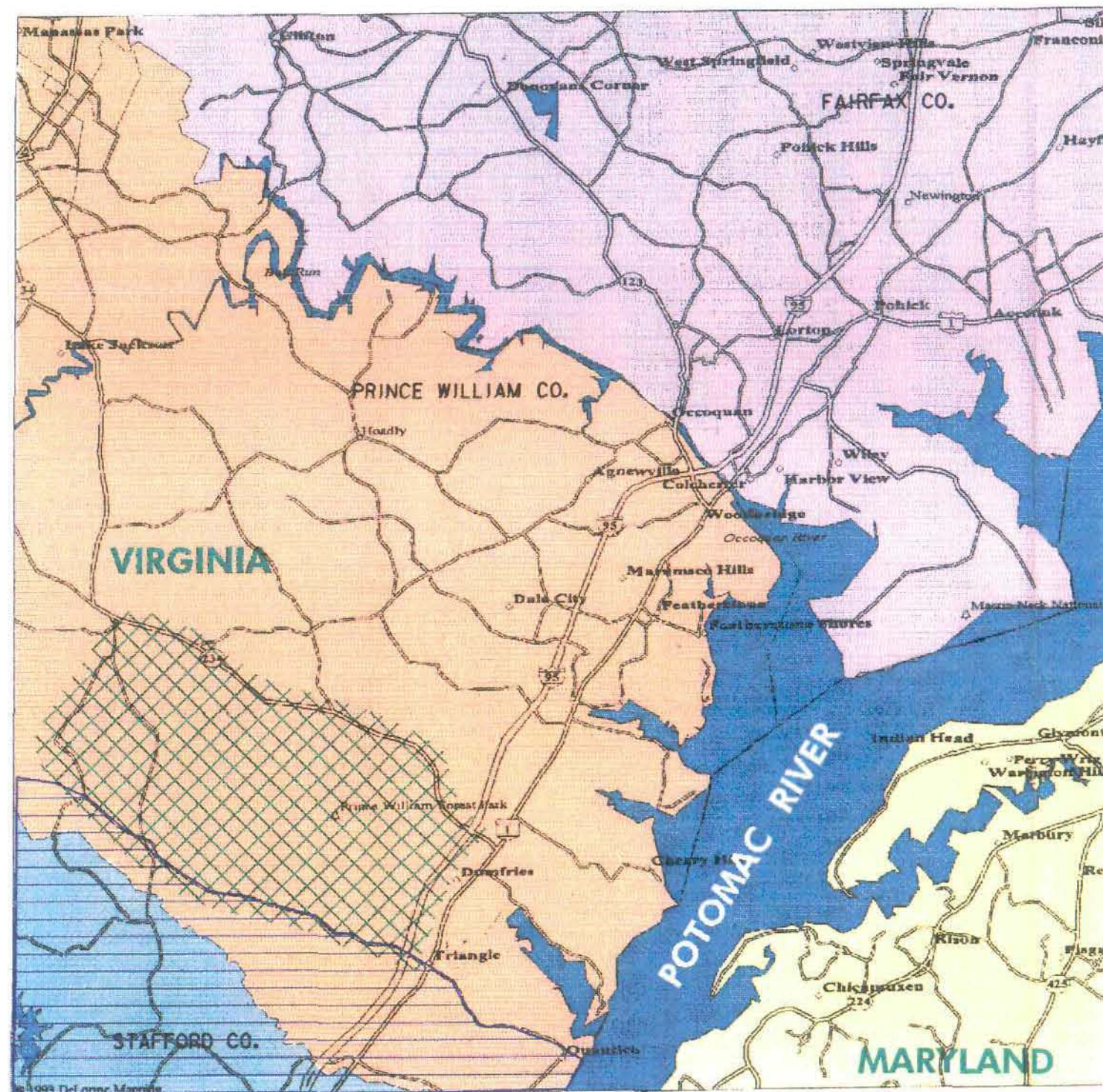
3.4.2 Population Density

County:	Prince William
Area:	348 sq.mi.
POP:	243,559
PD:	699.9 persons per sq.mi.

Population and area are based on the U.S. Department of Commerce, Bureau of the Census, 1990 statistics, and telephone interviews.

3.4.3 Business and Industry Profile

A review of both telephone interviews and County Business Patterns (1990) assisted in developing a business profile of the area. The County of Prince William is diversified. The



LEGEND

- | | | |
|------------------------|------------------------|---------|
| ○ Population Center | — Major Street/Road | 2 Miles |
| ○ State Route | — State Route | 5 KM |
| □ Geo. Feature | — Interstate Highway | |
| ☆ Town, Small City | — US Highway | |
| △ Park | ■ Open Water | |
| — Interstate, Turnpike | ▤ SITE AREA | |
| — US Highway | ▤ QUANTICO MARINE BASE | |
| --- County Boundary | | |



FIGURE 3.1

CHOPAWAMSIC TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VIRGINIA
DERP FUDS # C03VA019402
VICINITY MAP

NOT TO SCALE

PROJ. DATE: MAR. 1995

DATE OF MAP: 1993

23-MAR-1995 15:39

/N/OEW95AB/G4/MAP/CHOPVIC.DGN, H20,CHOPVIC.CIT



LEGEND:

RESERVATION BOUNDARY

**NOTE: U.S. ROUTE 95 HAS BEEN ADDED TO SHOW ITS APPROXIMATE PRESENT DAY LOCATION.



FIGURE 3.2

CHOPAWAMSIK TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VA
DERP FUDS # C03VA019402
SITE MAP

NOT TO SCALE

PROJ. DATE: MAR 1995

DATE OF MAP: 1943

23-MAR-1995 13:16

N:\OEWSAB\G4\MAP\CHOPAMAP.DGN - CHOPAMAP.CIT

largest employers are: Atlantic Research Corporation, AT&T, IBM Corp., Prince William County Schools, and Quantico Marine Corp Base. The community supports retail, service, and light industries.

3.4.4 Type of Housing

Housing in Prince William County is composed of both single and multi-family homes.

3.4.5 New Development in the Area

Development in the Prince William County area includes residential dwellings, industrial, and commercial development.

3.4.6 Typical Cross-Section of Population

The ancestry in Prince William County is diverse. Approximately 83.0% of the population is white, 12.0% Black, 4.5% Hispanic, 0.5% other races. The percent of those under the age of 18 is 31.0%, over 65 years is 3.0%. The median age is 29. There are approximately 84,100 housing units with a median value of \$138,500. The work force, based on the number of establishments in Prince William County is broken down into the following: manufacturing, 4.0%; agriculture, 1.1%; services, 30.0%; trade and finance, 37.4%; other, 27.5%.

4.0 Physical Characteristics of the Site

4.1 Geology\Physiography

The Chopawamsic Training Site is located in the Piedmont Upland section of the Piedmont physiographic province. The topography of the Piedmont physiographic province consists of low well-rounded hills and long, northeast-trending valleys and ridges. The surfaces of many ridge tops and interstream divides are relatively flat. Recent erosion by streams has dissected the Piedmont and created a local topographic relief of 100 to 200 ft between drainage divides and stream bottoms. Land surface in the Piedmont ranges from 300 to 600 ft above sea level along the eastern border near the Fall Line to more than 1500 ft near the escarpment of the Blue Ridge. The Upland section is considered representative of the Harrisburg peneplain. Erosional modification of this erosion surface has been on the whole rather moderate. Dissection is least at the western margin and increases along streams toward the Fall Line. Numerous monadnocks are present along the western margin of the section (Thornbury 1965).

4.2 Soils

The soils of the Chopawamsic site are composed mainly of silty sandy clay that becomes gradually more clayey and gravelly in the substratum. Slopes in this area range from 0% to 50%. The soils are all deep (over 60 inches) except for a few areas of severe slope where the soil is only moderately deep (48 inches). Generally, the surface layer is thin, dark brown, and composed of silty sandy clay. The subsoil is brownish yellow or strong brown, silty sandy clay. Gravel or sand is present in the lower part of the subsoil. The substratum is composed of multicolored sand or reddish yellowish and brownish gravelly sandy silty clay.

The permeability of the soil is for the most part is moderate, as well as the available water capacity. The surface runoff is dependent on the slope and in some areas is very rapid. The seasonal high water table is at the most within 12 inches of the surface and usually levels out between 36 and 60 inches below the surface (Elder 1989).

4.3 Hydrology

4.3.1 Surface Water

The Chopawamsic Troop Training Site is located southwest of Washington, DC near the Quantico Marine Corps Base in Prince William County, Virginia. It is drained primarily by Quantico Creek and Chopawamsic Creek and several of their small tributaries but insufficient gage readings are available.

4.3.2 Groundwater

The Piedmont physiographic province is underlain by igneous, metamorphic, and sedimentary bedrock ranging in age from Precambrian to Mesozoic. Bedrock includes massive granites and gneisses, foliated phyllites and schists, and consolidated sandstones. Metamorphic rocks predominate the crystalline rock regimes. In most places, the consolidated rocks are overlain by regolith. Porosity of the regolith is about 35 to 55% near land surface but decreases with depth as the degree of weathering decreases. Porosity of the bedrock is only .01 to 2%. Because of the relatively high porosity and permeability of the regolith, recharge from precipitation is stored in the regolith and later reaches the underlying rocks through fractures. The abundance of connected fractures within the bedrock directly affects the yield of wells in the Piedmont physiographic province. Because fractures act as conduits for the flow of ground-water, well yields are greatest where wells intersect large or numerous fractures. Because the number and size of fractures decreases with depth in the Piedmont rocks, most wells within the Piedmont are less than 800 ft deep. Wells in crystalline rocks of the Piedmont commonly produce 5 to 35 gal/min and some yield as much as 1800 gal/min (Swain and others 1991).

4.4 Weather

This site near Washington, DC lies at the western edge of the mid Atlantic Coastal Plain, about 50 miles east of the Blue Ridge Mountains and 35 miles west of Chesapeake Bay. The area is characterized by warm and humid summers, and winters are cold, but not severe. Periods of pleasant weather often occur in the spring and fall. The summertime temperature is in the upper 80s and the winter is in the upper 20s. The average date of the last freezing temperature in the spring is April 1 and the average date for the first freezing temperature in the fall is November 10. Precipitation is rather uniformly distributed throughout the year. Thunderstorms can occur at any time of the year but are most frequent during the late spring and summer. The storms are most often accompanied by downpours and gusty winds but severe weather such as tornadoes and hailstorms are possible but infrequent. Tropical storms can also hit this area with heavy rain, high winds, and flooding, but extensive damage is also rare. The average winter snowfall is about 18 inches per year.

The prevailing wind direction is from the south, but occasional severe winter storms will produce strong northwesterly winds.

Relative humidity is close to 75 percent during the early hours of the day and drops to around 50 percent late in the afternoon.

In Washington, DC the sun shines for about 50 percent of the daylight hours in winter, and for more than 60 percent in summer. Skies are clear more than 25 percent of the time, partly cloudy about 30 per cent, and cloudy about 45 percent.

Climatological data for the area are summarized in TABLE 4-1. Data were collected at the National Weather Service meteorological station at the Washington, DC National Airport. The site is located about 25 miles southwest of the National Airport.

**CLIMATOLOGICAL DATA FOR
WASHINGTON, DC NATIONAL AIRPORT
TABLE 4-1**

Month	Temperature		Precipitation	Wind	
	Average Minimum ('F)	Average Maximum ('F)		Average Speed Miles/Hour	Average Direction
January	26.8	42.3	2.72	10.0	NW
February	29.1	45.9	2.71	10.4	S
March	37.7	56.5	3.17	10.9	NW
April	46.4	66.7	2.71	10.5	S
May	56.6	76.2	3.66	9.3	S
June	66.5	84.7	3.38	8.9	S
July	71.4	88.5	3.80	8.3	S
August	70.0	86.9	3.91	8.1	S
September	62.5	80.1	3.31	8.4	S
October	50.3	69.1	3.02	8.7	SSW
November	41.1	58.3	3.12	9.3	S
December	31.7	47.0	3.12	9.6	NW
Average	49.2	66.9	38.63	9.4	S

4.5 Ecology

The information on the endangered and threatened species for this site has been provided by the U.S. Fish and Wildlife Service (USFWS) and the Virginia Department of Conservation and Recreation, Division of Natural Heritage (VDC-NH).

The USFWS indicated that the following Federally protected species may be found in Prince William County, Virginia: Bald eagle (Haliaeetus leucocephalus), endangered; Henslow's sparrow (Ammodramus henslowii), candidate; brook floater (Alasmidonta varicosa), candidate; yellow lance (Elliptio lanceolata), candidate; regal fritillary (Speyeria idalia), candidate; and small whorled pogonia (Isotria medoloides), threatened.

The VDC-NH reported that the State endangered small whorled pogonia occur in the vicinity of the Chopawamsic Troop Training Site. The following State threatened and endangered species were reported to occur in Prince William County: Bald eagle, endangered; brook floater, endangered; and regal fritillary, candidate.

No additional information on the occurrence of rare or endangered species or natural communities is known at this time. This does not mean that other state or federally-listed species may not be present within the areas of interest. An on site inspection by appropriate state and federal personnel may be necessary to verify the presence, absence, or location of listed species, or natural communities if remedial action is recommended as part of the final ASR.

5.0 Real Estate

5.1 Present Ownership

The Findings and Determinations of Eligibility (FDEs), cited in Paragraph 2.0, indicates that the permitted use lands of the former Chopawamsic Troop Training Site and those acquired through condemnation proceedings were placed in the custody of the NPS by 1948. The site remains under NPS control.

5.2 Confirmed DOD Ownership

Based on data contained in the FDE, the Army acquired permit use of 9,870 acres from the Department of Interior and 1,141.23 acres in fee, by condemnation in 1942.

5.3 Historically Significant Past Ownership

There is nothing in the records to indicate that there were any historically significant past ownerships, other than DOD's, with respect to possible OEW.

6.0 OEW/CWM Site Analysis

6.1 Historical Summary of OEW/CWM Activities

In 1933, the Resettlement Administration, under the authority of the National Industrial Recovery Act, acquired 17,000 acres of depleted farmland in Prince William County, Virginia, and established the Chopawamsic Recreation Demonstration Area (RDA). In 1936, the area was transferred by Executive Order to the Department of the Interior for administration. In 1940 congress directed that the area be administered as a part of the National Capital Park system. A major stated purpose of the park was to provide recreational opportunities for residents of and visitors to the Washington metropolitan area (Jones 1981).

In 1934, the Civilian Conservation Corps (CCC) began the construction of the cabin camps, roads, lakes, trails, and utility systems. Some local labor was also used. The first camp was completed and in operation by 1935. By 1940, when the area was officially transferred to the national park system, five cabin camps had been completed, each accommodating 150 campers. Other facilities included three CCC camps, a temporary office, a makeshift maintenance area, and five lakes (National Park Service 1992).

With the beginning of World War II, the defense needs of the nation eventually superseded the recreational needs of the public. As early as 1938, military maneuvers had been conducted in the park by forces from Quantico Marine Base and Fort Belvoir. By 1942 the practice of military maneuvers had become commonplace. During World War II, parts of the park were utilized for military training purposes, and 4,862 acres of land south of Virginia State Route 619 are still under special use permit to the Department of the Navy for Marine training purposes.

In 1942, a special use permit was also granted allowing exclusive use of all five cabin camps in the park by the War Department (Strickland 1986). From 1942 to 1945, Chopawamsic RDA was closed and was used by the U.S. Army's Office of Strategic Services (OSS), the forerunner of the CIA. Chopawamsic RDA became a school for the training of agents in the art of espionage (Christner 1995).

The OSS staff ran both basic and advanced training at the same time in different sections of Chopawamsic, known as Areas A and C. Cabin units in each area were designated numerically. Paramilitary training included the use of pistols, revolvers, carbines, rifles, sub-machine guns, mortar guns, mortars, rockets, grenades, military demolition and explosives. An assortment of OSS sabotage and "booby-trap" devices (incendiary, demolition and contact firing types) were also probably used (Brunner 1994). Besides paramilitary training, Area C was also used for cryptic training (D'Anne Evans 1989, Strickland 1986).

"Live fire" ranges were established for each type of weapon system. Danger areas created included 10 target ranges and 3 demolition areas. Demolition areas covered 4 acres on old

Route 643, 1 acre on Route 620 (North of Route 626 intersection) and 20 acres on Route 626 and Route 619. Magazines and other storage facilities for munitions were also constructed at Chopawamsic RDA.

Shortly after World War II, in 1946, the special use permit for Chopawamsic RDA by the War Department was terminated. A restoration survey had been conducted by the U.S. Army Corps of Engineers listing improvements to the property by the War Department and/or damages resulting from War Department occupancy (United States Engineer Office 1945). The list includes the following designated areas and usage:

Area A---storage magazine surrounded by stockade fence, a 200-yard rifle range and three demolition areas (1 acre, 4 acres and 20 acres).

Area/Camp A-2---pistol range building (40 ft. by 60 ft.).

Tract Numbered 229---two magazines (24 ft. by 42 ft.)

Property believed to be National Park Service land, but may lie partly on Tracts Numbered 224 and 230---200-yard rifle range.

Tract Numbered 256---one acre demolition area.

Tract Numbered 208---four acre demolition area (effects may have extended to Tract Numbered 213 owned by War Department).

Tract Numbered 201---twenty acre demolition area.

Camp A-4---target rifle range (1500 cubic yards grading and wood shelters).

Camp C-4---6 target rifle range (100 cubic yards excavation and shelters).

Camp C-4---8 target pistol range (1,000 cubic yards excavation and shelters).

Included in the restoration survey document is a letter from Headquarters, Det # 6, 9800th TSU-CE, Bomb and Shell Disposal Team, Chopawamsic, VA, dated 13 January 1946, Subject: Clearance of Range Land in Chopawamsic Park, other areas are vaguely listed for the Chopawamsic RDA. Reference is made to a map, which was not attached to the report. These areas are listed as follows:

Mortar and Rocket Range (40.5 - 73.8), approximately 8 acres (letter reference), 20 acres (map indication).

Mortar Range (44.6 - 72.0), approximately 3 acres (letter reference), 1 acre (map indication).

Mortar Range (44.7 - 74.6), approximately 1 acre, 4 acres (map indication).

3 Abandoned Houses----practice booby-trapping

Magazine Area

Hand-grenade Court

Further investigation revealed that these ranges/explosive areas coincide with the previously listed areas

Remediation and restoration measures were taken in 1946 and 1947. The name of Chopawamsic RDA was then changed to Prince William Forest Park.

At the end of World War II, Chopawamsic RDA, now Prince William Forest Park, was supposedly cleared of unexploded ordnance. However, as recently as 1993, the 57th EOD at Ft. Belvoir, VA, reported an incident involving a bazooka round. Earlier in 1985, a mortar shell was found embedded in the roof of a building and removed.

Besides the discovery of ordnance, an ongoing administrative problem for Prince William Forest Park since World War II has been the issue of 4,862 acres of land on loan to the Quantico Marine Corps Base. Both the Marine Corps and the National Park Service believe they have valid claim to the 4,862 acres.

6.2 Records Review

**National Archives and Records Administration
Suitland Branch
4205 Suitland Road
Suitland, MD 20409**

Post war correspondence on restoration of the site was obtained from Accession Number 77-A52-259, Box 18.

**National Archives
8th and Pennsylvania
Washington, D.C. 20408**

Information obtained from textual sources: "OSS Weapons" by John W. Brunner, Ph.D., and "History of the Schools & Training Branch, Office of Strategic Services" edited by William L. Cassidy.

**Archives II
8601 Adelphi Road
College Park, MD 20740-6001**

Historical Maps (including post war time period) of Chopawamsic Troop Training Area were retrieved from the Cartographic Division.

**Chemical and Biological Defense Agency Historical Office
AMSCB-CIH
Aberdeen Proving Ground
Edgewood, MD 21010**

Files reviewed did not contain pertinent information.

**National Personnel Records Center
9700 Page Blvd
St. Louis, MO 63132**

All files under accession numbers reviewed yielded no pertinent information.

**U.S. Army Chemical School
Fisher Library, Sibert Hall
Ft. McClellan, AL 36205-5020**

Files searched by librarian revealed no pertinent information.

**National Archives-Mid Atlantic Region
9th & Market Streets
Philadelphia, PA 19107**

Information obtained from RG 79 (Records of the National Park Service) pertained to the land acquisition of the site (including maps) and some local correspondence. Information obtained from RG 270 (Records of the War Assets Administration) pertained to real estate information of the site, including a list of improvements to the property by the War Department and/or damages resulting from War Department occupancy with estimated cost of restoration.

**Federal Records Center
5000 Wissahickon Ave
Philadelphia, PA 19144**

Files under accession numbers did not reveal any pertinent information.

**Library of Virginia
11th Street at Capitol Square
Richmond, VA 23219-3491**

A newspaper clipping on the site was obtained from the Richmond Times-Dispatch.

**Archives
Marine Corps Research Center
Quantico Corps University
Marine Corps Combat Development Command
2040 Broadway Street
Quantico, VA 22134-5107**

Materials obtained included 1937 revised map of the area encompassing the Chopawamsic Troop Training Site depicting impact areas, training areas and ranges. Historical information on the history of the Quantico Marine Corps Base was also found.

**Soil Conservation Service
9263 Corporate Circle
Manassas, VA 22110**

Copy of Soil Survey of Prince William County, Virginia (including maps) was obtained.

**Archives
Judicial Circuit Court
Prince William County Court House
9311 Lee Avenue
Manassas, VA 22110**

Aerials were reviewed. No copies were obtained.

**Office of Mapping & Information Resources
Prince William County
4379 Ridgewood Center Drive, Suite 201
Prince William, VA 22192-5308**

Maps and aerials were reviewed. No copies were obtained.

**Office of Planning and Zoning
Prince William County
1 County Complex Court
Prince William, VA 22192-9201**

Materials obtained included newspaper clippings; "Draft General Management Plan, Environmental Assessment, Prince William Forest Park, VA"; extracts from "Prince William

County: A Pictorial History" by D'Anne Evans and "Prince William: A Past to Preserve" by the Prince William County Historical Commission, "The Curtis Collection: A Personal View of Prince William County History"; and an page from a survey file by the Virginia Historical Landmarks Commission.

**Bull Run Regional Library
8051 Ashton Avenue
Manassas, VA 22110**

Information was obtained from pertinent pages of the publication entitled "Prince William Forest Park: An Administrative History" by Susan Cary Strickland and "the Hinterland: An Overview of the Prehistory and History of Prince William Forest Park, Virginia" by the National Park Service.

**Cultural Resource Management Interpretation & Visitor Center
Prince William Forest Park
P.O. Box 209
Triangle, VA 22172**

An historical map of the site and a copy of the publication entitled "Prince William Forest Park: An Administrative History" by Susan Cary Strickland was obtained.

6.3 Interpretation of Aerial Photography

6.3.1 Interpretation of Aerial Photography

Photographic analysis and land use interpretation were performed using the following photographic sources:

<u>Photo Date</u>	<u>Approx. Scale</u>	<u>Source</u>	<u>Frame ID #</u>
30 Mar 1943	1"=1,750	NATIONAL ARCHIVES	06 thru 12 51 thru 55 143 thru 147
12 Mar 1950	1"=2,000'	NATIONAL ARCHIVES	249 thru 254 266 thru 270
08 Dec 1953	1"=1,667'	ASCS	82 thru 87 127 thru 132
09 Apr 1954	1"=1,667'	ASCS	196 thru 200

<u>Photo Date</u>	<u>Approx. Scale</u>	<u>Source</u>	<u>Frame ID #</u>
09 Jun 1962	1"=1,667'	ASCS	79 thru 85 146 thru 151
10 Jul 1962	1"=1,667'	ASCS	35 thru 41
29 Mar 1963	1"=2,000'	USGS	86 thru 90 98 thru 102
30 Jun 1969	1"=1,667'	ASCS	32 thru 34 36 thru 40 48 thru 51
02 Dec 1971	1"=2,000'	USGS	19 thru 24 33 thru 38 45 thru 50

Two USGS topographic quadrangles were used to reference the photography, they are as follows:

Joplin (photorevised 1971)
Quantico (photorevised 1983)

Photography prior to 1943 was not available for interpretation. The photography from 1943, 1950, and 1954 does not reveal any land disturbances in any of the suspected site areas. Buildings were located in the site areas. These findings appear to be consistent considering the period of use.

1962 photography was analyzed, and buildings in the site areas are still evident in the photography. The rest of the photography was scanned, and no other areas of interest were evident.

Photography from 1963, 1969 and 1971 did not reveal anything different from the 1962 photos with respect to possible OEW indications.

6.3.2 Map Analysis

Map analysis was performed using the following 7.5' USGS quadrangles:

Joplin (photorevised 1971)
Quantico (photorevised 1983)

Both quadrangles contain both planimetric and topographic features. The terrain is fairly rugged and is covered with dense woods. There are many streams both perennial and intermittent in the area. Planimetrically there are many hard and loose surface roads. There are many areas of human habitation. The site area lies within the boundaries of Prince William Forest Park. There are mainly dense woods and a few small roads within this area.

6.4 Interviews

Interviews were conducted by telephone and in person, both prior to and during the site inspection. The primary purpose of these interviews was to make initial contact with individuals knowledgeable of the site and to coordinate follow-up visits during the site inspection phase of this ASR's preparation. A list of persons interviewed is included at Appendix E. Any pertinent information derived from these discussions is covered within the context of this report.

6.5 Site Inspection

The subject site inspection was performed by the following St. Louis District personnel:

Dennis W. Gilmore	Project Manager
Gregg Kocher	Safety Specialist
M. Kevin McCaffrey	QASAS

The site, which is currently a national forest, is tree covered and decades of accumulated organic matter covers the ground.

The team, accompanied by Mike Shafer, National Park Service Ranger, inspected various ranges within the former training site. The former facility included two small arms ranges, four demolition ranges, a mortar range, and a multi-use assault range (Figure 7.1).

Of the eight areas, OEW was observed in two. At the five target, 50 yard pistol range several expended .45 caliber rounds were found embedded in each of the target posts. This range was also used for carbine and sub-machine gun firing.

The multi-use assault range is the site of a 1993 recovery of a 2.36" rocket. During the site inspection we discovered two concrete targets (one with a 20mm gun barrel). Additionally, we found a portion of a 2.36". This site is located in what is believed to be a cemetery. No indications of OEW was found in either of the other areas inspected.

Based on interviews and our research in the local area, it is concluded that OEW contamination of the site exists. However, because of the limited use and nature of the training conducted, it is believed that the scale of contamination would be relatively small. This is based on the number of personnel trained and the short period during which the site operated.

7.0 Evaluation of Ordnance Contamination

Based on the extensive archive searches performed, the interviews with National Park Service personnel, and the results of the site investigation, there exists the probability of OEW contamination at the site based on observed OEW and previous recoveries of ordnance. Due to the nature and small scale of the training, the OEW contamination is thought to be localized and in limited quantities.

As noted in Section 6.5 - Site Inspection, of the eight areas identified as potentially contaminated, OEW was observed in two. At the 50 yard small arms range, several expended .45 cal rounds were found embedded in each of the target posts. This range was also used for carbine and sub-machine gun firing.

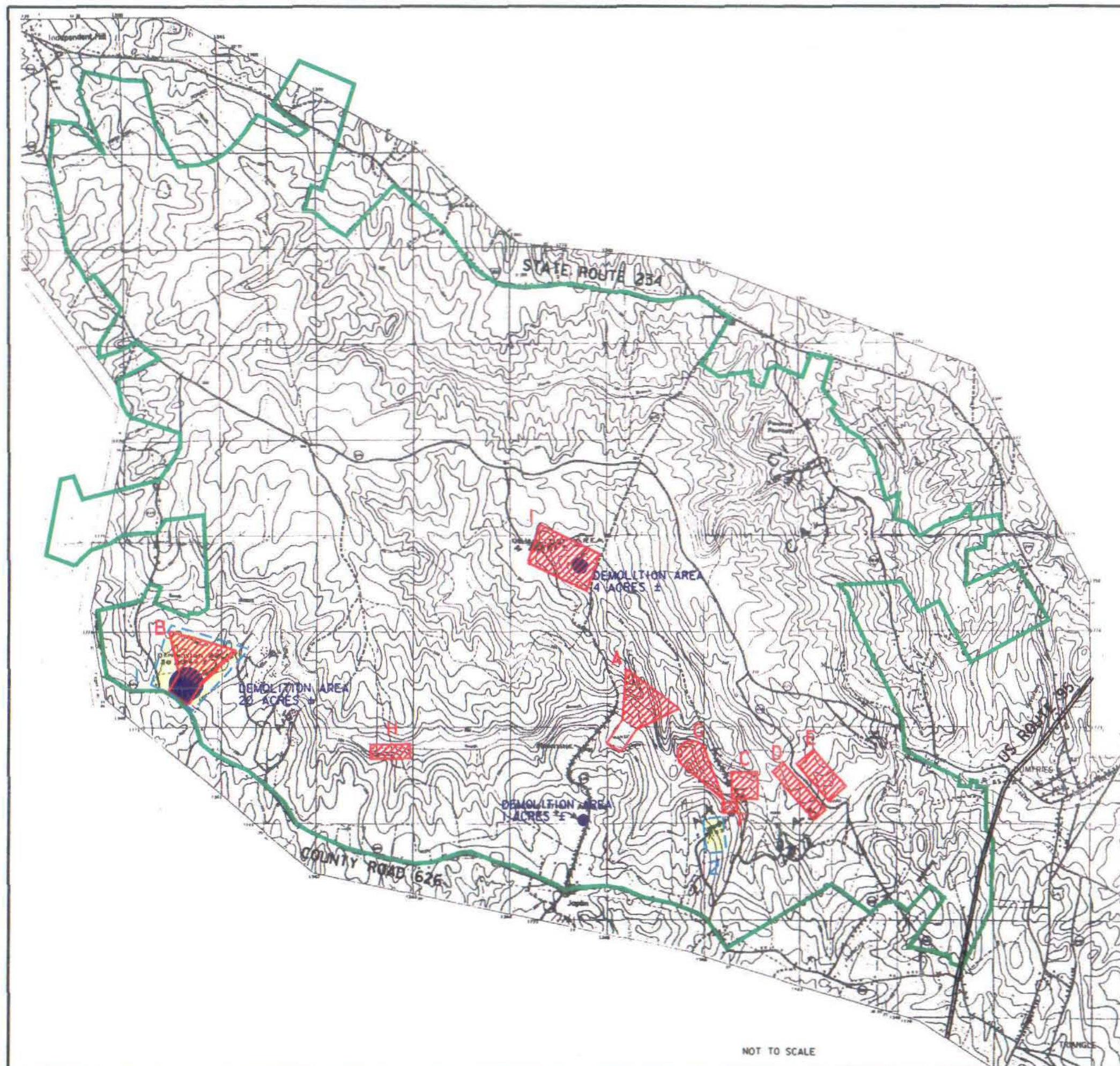
The multi-use assault range is the site of a 1993 2.36" rocket recovery. This item was found by a Park Ranger while cleaning a family homestead burial plot. No cultural significance related to the cemetery was found, though the Ranger suspects it dates to the turn of the century.

During the site inspection, two trapezoidal concrete targets (one with a 20mm gun barrel) were discovered. The continued survey of the site revealed a portion of a 2.36" rocket body. This site is located in what is reported above to be a cemetery.

No indications or observations of OEW was found in either of the other areas inspected. The ability to visually located items was severely hamper by the natural environment. The site is tree covered and decades of accumulated organic matter covers the ground.

The site inspection confirmed the contamination of the site with OEW. No OEW of a hazardous nature was observed during the site inspection. However, there exists a good probability of additional OEW.

A Technical Advisory Group (TAG) Risk Assessment Code (RAC) score of "1" was developed for this property (see APPENDIX I - FINALIZATION DOCUMENTS).



KEY TO AREAS IN RED

- A. RIFLE RANGE AND DANGER SPACE.
- B. RIFLE, MACHINE GUN, MORTAR AND ROCKET FIRING. MORTAR AND ROCKET DUDS IN DANGER SPACE.
- C. DEMOLITION RANGE. FIRING LIVE CHARGES. TIMBER.
- D. DEMOLITION RANGE. FIRING LIVE CHARGES. STEEL.
- E. DEMOLITION RANGE. FIRING LIVE CHARGES. CRATERING.
- F. FRAGMENTATION GRENADE RANGE.
- G. NIGHT FIRING COURSE. PISTOL, CARBINE AND SUB-MACHINE GUN.
- H. DEMOLITION RANGE. FIRING LIVE CHARGES. GENERAL.
- I. ABANDON MORTAR RANGE. COVERED WITH DUDS.

KEY TO AREAS IN BLUE

- 1. 2.36" ROCKET BODY FOUND AT N 30°34' 57.1" & W 77°25' 30.2".
- 2. AREA A-4: MORTAR FOUND IN ROOF.

FIGURE 7.1

CHOPAWAMSIK TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VA
DERP FUDS # C03VA019402
FINDINGS

PROJ. DATE: MAR 1995

DATE OF MAP: 1943

23-MAR-1995 13:14

N:\OE\95AB\G4\MAP\FINDINGS.DGN - CHOPAMAP.CIT

NOT TO SCALE

APPENDIX A

REFERENCES

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
for the former
CHOPAWAMSIK TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401**

APPENDIX A -- REFERENCES

A.1 REFERENCES

Brunner, John W.

- 1994 Book, OSS Weapons, dated 1994, by John W. Brunner, Ph.D., Phillips Publications, Williamstown, NJ.

Christner, Henry

- 1995 Article, "Public Park, Private Past", dated 29 January 1995, Staff Writer-Henry Christner, Richmond Times-Dispatch, Richmond, Virginia.

Evans, D'Anne

- 1989 Pamphlet, Prince William County: A Pictorial History, dated 1989 by D'Anne Evans, The Donning Company Publishers, Norfolk/Virginia Beach, Virginia.

Jones, Francis

- 1981 Attachment to Survey Form 76-299, Virginia Historical Landmarks Commission Survey, dated April 1981, performed by John Francis, Architectural Historian/Surveyor, for the Office of Planning and Zoning, Prince William Forest Park, Virginia.

National Park Service

- 1992 Pamphlet, Draft General Management Plan, Environmental Assessment, Prince William Forest Park, Virginia, dated December 1992, sponsored by National Park Service, Department of the Interior, for the Office of Planning and Zoning, Prince William Forest Park, Virginia.

Strickland, Susan Cary

- 1986 Pamphlet, Prince William Forest Park: An Administrative History, dated January 1986, History Division, National Park Service, Department of Interior, Washington, D.C.

U.S. Army Corps of Engineers (ACOE)

- 1993 Letter with enclosures, dated 12 January 1993, from Commander, North Atlantic Division, Corps of Engineers, to Commander Department of the Army Headquarters, U.S. Army Corps of Engineers, Attention: CEMP-R, Washington D.C., and Commander, Huntsville Division, Attention: CEHND-DE, Huntsville, AL, Subject: Inventory Project Report for Site No. C03VA019400, Chopawamsic Troop Training Site, Prince William County, Virginia.

United States Engineer Office

- 1945 Restoration Survey (Form SPB-5), Chopawamsic Training Center, Quantico, VA, dated 7 December 1945, Washington, D.C., Accession 77-A52-259, Box 18, Washington National Records Center, Suitland, MD.

A.2 REFERENCES FOR GEOLOGY AND SOILS

Elder, John H.

- 1989 *Soil Survey of Prince William County, Virginia*. US Department of Agriculture, Soil Conservation Service, in cooperation with Virginia Polytechnic Institute and State University.

Swain, Lindsay A., Hollyday, Este F., Daniel, Charles C. III, and Mesko, Thomas O.

- 1991 *An Overview of the Appalachian Valleys-Piedmont Regional Aquifer-System Analysis*. Aquifers of the Southern and Eastern States, Regional Aquifer Systems of the United States, AWRA Monograph Series No. 17.

Thornbury, William D.

- 1965 *Regional Geomorphology of the United States*. Department of Geology, Indiana University, John Wiley and Sons, Inc., New York.

A.3 DEMOGRAPHIC REFERENCES

Prince William County Chamber of Commerce (703) 590-5000

Office of Mapping and Information Resources (703) 792-6840

U.S. Department of Commerce. Bureau of the Census. Virginia. 1990.

APPENDIX B

ACRONYMS

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
for the former
CHOPAWAMSIC TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401**

APPENDIX B -- ACRONYMS

AAF	Army Airfield
ASR	Archives Search Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEHND	Corps of Engineers, Huntsville Division
CCC	Civilian Conservation Corps
CIA	Central Intelligence Agency
CSM	Chemical Surety Material
CWM	Chemical Warfare Material
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
EOD	Explosives Ordnance Disposal
EPA	Environmental Protection Agency
ERDA	Environmental Restoration Defense Account
FDE	Findings and Determination of Eligibility
FDIC	Federal Deposit Insurance Corporation
FUDS	Formerly Used Defense Sites
FWS	U. S. Fish and Wildlife
GSA	General Services Administration
HTW	Hazardous and Toxic Waste
INPR	Inventory Project Report
IRP	Installation Restoration Program
MCX	Mandatory Center of Expertise
NPS	National Park Service
NCP	National Contingency Plan
OEW	Ordnance and Explosive Waste
OSS	Office of Strategic Services
PWFP	Prince William Forest Park
RDA	Recreational Demonstration Area
SARA	Superfund Amendments and Reauthorization Act
TSU-CE	Technical Service Unit-Corps of Engineers
USACE	U.S. Army Corps of Engineers
USAED	U.S. Army Engineer District
USAEDH	U.S. Army Engineer Division, Huntsville, AL
UXO	Unexploded Ordnance
WRNC	Washington National Records Center

APPENDIX C

REPORTS, STUDIES, LETTERS, MEMORANDUMS

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
for the former
CHOPAWAMSIK TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401**

APPENDIX C

REPORTS/STUDIES/LETTERS/MEMORANDUMS

Site Specific Safety and Health Plan (SSHP) Chopawamsic Troop Training Site	C-1
Findings and Determinations Chopawamsic Troop Training Site	C-2
Restoration Survey, Chopawamsic Training Center, Quantico, VA, 7 December 1945, includes Letter: Clearance of Range Land in Chopawamsic Park).	C-3
Explosive Ordnance Incident Report January 1993	C-4

APPENDIX C-1
Site Specific Safety and Health Plan (SSHP)

SITE SPECIFIC SAFETY AND HEALTH PLAN (SSHP)

OEW/CWM Archives Search Site Inspection Visit

Chopawamsic Troop Training Site

Chopawamsic, VA

Site #C03VA0194

1. REFERENCES:

- a. Safety Manual, CELMS-PM-M, 16 Sep 93 w/ Ch1.
- b. SOP for Reporting Ordnance and Unexploded Ordnance (UXO), CELMS-PM-M, 19 Jan 95.
- c. OEW Guidance Regarding Coordination with EOD Organizations, 10 Jan 95.

2. GENERAL: This plan prescribes the safety and health requirements for team activities and operations conducted to determine the presence of ordnance and explosive waste and /or chemical warfare materials at the specified site.

- a. The Safety Officer has final authority on all matters relating to safety. The safety rules will be followed at all times. Any member of the team may stop operations if they observe a situation or activity which poses a potential hazard to any individual or to the operation. All actions must comply with the common sense rule!
- b. All team members will be aware of the local emergency numbers and the location of the nearest telephone.
- c. A minimum of two and a maximum of eight persons will be allowed on-site at any one time.
- d. The property owner is not required to sign the SSHP, but should be politely asked to participate in the safety briefing.

3. MISSION: Reconnoiter, document, and photograph areas on Chopawamsic Training Site suspected to be contaminated with UXO and/or toxic chemical munitions. Areas where munitions have been recovered will be investigated.

4. **SAFETY PRECAUTIONS:** All team members will stay within sight of each other while on site. A first aid kit will be on hand. The following three basic safety rules apply at all times:

a. Rule 1 - Do not touch or pick up anything at the site.

b. Rule 2 - Do not step anywhere you cannot see where you place your foot.

c. Rule 3 - There will be no eating or smoking at the site. Hands will be washed after the survey and prior to eating. Drinking fluids should be done during periodic breaks.

5. **SITE COMMUNICATIONS:** The primary means of communicating with other team members will be by voice. Team members will always remain within sight of each other. Cellular telephones should be carried to facilitate and expedite calling for emergency medical services.

6. **NATURAL HAZARDS:** Extreme cold conditions with snow and ice expected. Possible muddy wetland areas.

7. **ORDNANCE HAZARDS:** Rockets (2.36" & 4.5") as well as 81mm mortar rounds.

8. **HAZARD EVALUATION:** Estimate the overall hazards using the following guidelines: (check appropriate item)

☐ Low (small arms ammunitions)

☐ Moderate (practice bombs with spotting charge)

☒ High (high explosive munitions, toxic chemicals, WP)

☐ Unknown

9. **EMERGENCY PROCEDURES:** First aid will be rendered for any injuries. In the event of a detonation, everyone should freeze until the situation can be assessed by the team leader. Unnecessary injuries can be avoided by not panicking and planning a logical course of action, which may include retracing your steps out of an impact area. Emergency medical services will be contacted by the most expeditious means available.

10. **SAFETY STATEMENT:** Safety is everyone's business. No unnecessary risks will be taken to obtain photos or other data. Team members are responsible for notifying the project Manager or safety Officer of any physical conditions that may impede or prevent their accomplishment of the mission. An example is allergic reactions to bee stings.

Important Phone Numbers

Emergency medical service: 911
Law enforcement agency: 911
Huntsville Safety: (205) 895-1582/1579
(800) 627-3532, PIN 777-2534
Police non-emergency number:

SSHP reviewed by:

GEORGE SLOAN
[Signature]

Encls

1. Safety Briefing Attendance
2. Safety gear

SITE SURVEY SAFETY BRIEFING

PPE

☒ Work Clothing
☒ Gloves
☐ Hardhat
☐ Hearing protection
☒ Safety shoes
☐ Safety glasses

Site Hazards

☒ OEW
☐ CSM
☐ HTW
☒ Slips, falls, trips
☒ Wildlife
☒ Vegetation

Weather Precautions

☐ Cold/Heat
☐ Severe Weather

Safety Briefing Attendance

All team members and any accompanying personnel
will be briefed and sign this form:

Print name and organization

Signature

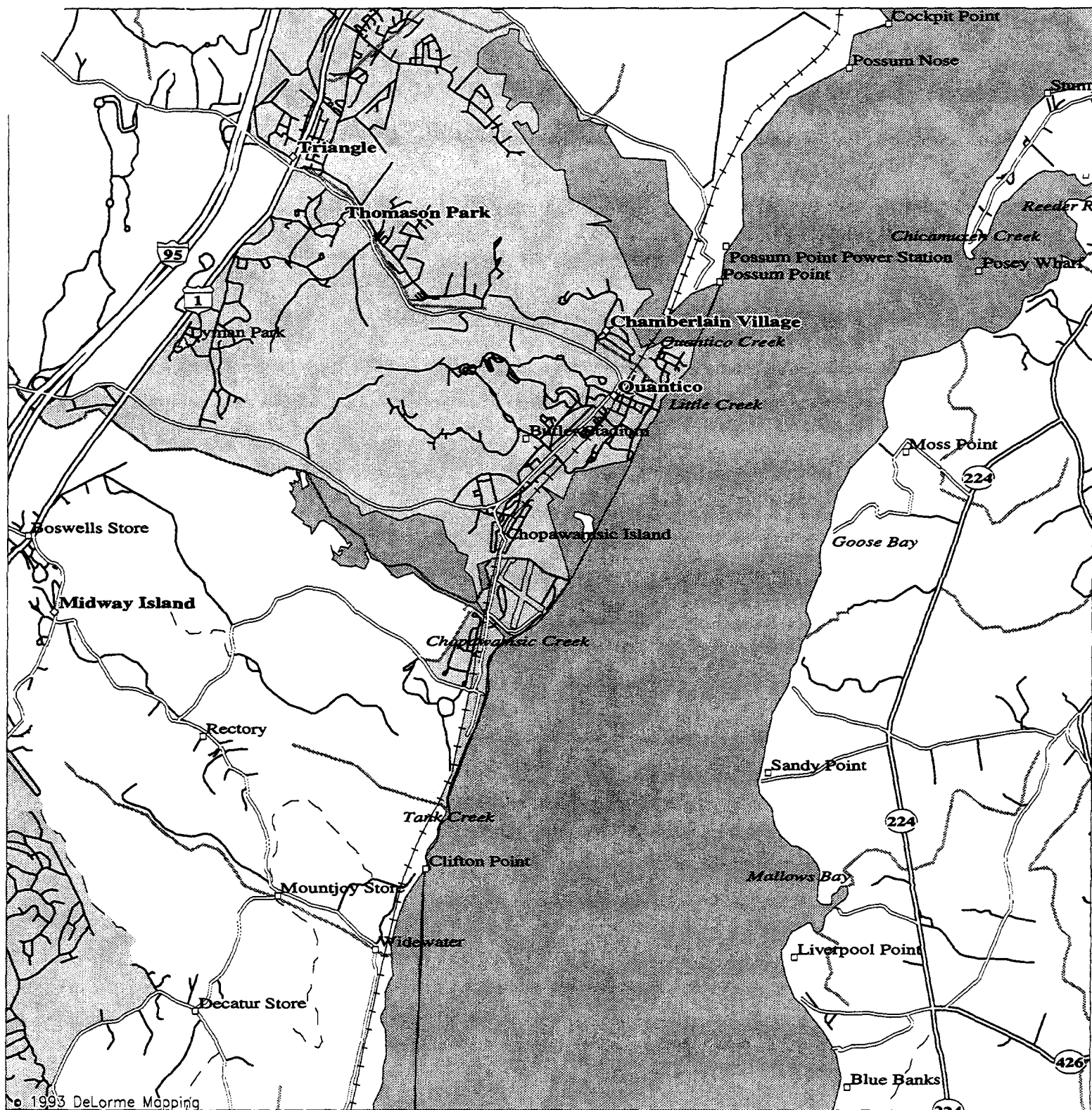
DENNIS W. GILMORE PH-M

MREGG KOCHER PH-M

M. KEVIN MCCAFFREY PH-M

MANDATORY MINIMUM SAFETY GEAR

First aid kit (individual)	<u>✓</u>
Survival kit	<u>✓</u>
Fire starter	<u>✓</u>
Space blanket	<u>✓</u>
Whistle	<u>✓</u>
Mirror	<u>✓</u>
Cellular phone	<u>✓</u>
Flash light	<u>✓</u>
Survey tape	<u>✓</u>
Canteen	<u>✓</u>



APPENDIX C-2
Findings and Determinations



DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS
80 CHURCH STREET
NEW YORK, N.Y. 10007-2979

CENAD-EN-DE
York, N.Y.

IN REPLY REFER TO

CENAD-PL-F (1105-2-10c)

JAN 12 1993

MEMORANDUM FOR

COMMANDER, DEPARTMENT OF THE ARMY HQ, U.S. ARMY CORPS OF ENGINEERS,
ATTN: CEMP-R, WASHINGTON, DC 20314-1000
COMMANDER, HUNTSVILLE DIVISION, ATTN: CEHND-DE, POB 1600,
HUNTSVILLE, AL 35807-4301

SUBJECT: DERP-FUDS Inventory Project Report (INPR) for Site No.
C03VA019400, Chopawamsic Troop Training Site, Prince William County,
Virginia

1. I am forwarding the subject INPR for appropriate action. The site is eligible for DERP-FUDS.
2. I recommend that CEHND determine if further study and remedial action regarding a potential OEW project are needed at the site.

Encl
as

Paul Y. Chinen
PAUL Y. CHINEN
Brigadier General, USA
Commanding

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

of pages ► 16

To	Charlene Boecklen	From	G. Ellixson
Dept./Agency	St Louis Dist	Phone #	804 441 7214
Fax #	314 331 8886	Fax #	804 441 7831

NSN 7540-01-317-7360

5099-101-28

GENERAL SERVICES ADMINISTRATION



DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

REPLY TO
ATTENTION OF:

CENAO-EN-DG (200-1c)


28 September 1992

MEMORANDUM FOR Commander, North Atlantic Division, ATTN: CENAD-PL-F,
(Arabatzis)

SUBJECT: DERP-FUDS Inventory Project Report (INPR) for Site NO.
C03VA019400, Chopawamsic Troop Training Site, Prince William County,
Virginia.

1. This INPR reports on the DERP-FUDS preliminary assessment of Chopawamsic Troop Training site, Prince William County, Virginia. A site visit was conducted on 23 July 1992. The site survey summary sheet and site maps are Enclosures 1 through 4. A recommended Findings and Determination of Eligibility is Enclosure 5.
2. We have determined that the site was formerly used by the DOD. There is a possibility that unexploded ordnance may exist on the site. Therefore, we recommend an OEW project be proposed. A project summary sheet is Enclosure 6. A copy of the RAC form is Enclosure 7 (a thru h).
3. I recommend that you:
 - a. Approve and sign the Findings and Determination of Eligibility.
 - b. Forward a copy of this INPR to CEMP requesting approval and funds for this OEW project.
 - c. Forward a copy of this INPR to HND for appropriate action.

Encls


R. C. JOHNS
Colonel, Corps of Engineers
Commanding

**SITE SURVEY SUMMARY SHEET
FOR
DERP-FUDS SITE NO. CO3VA019400
CHOPAWAMSIK TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VIRGINIA**

SITE NAME: Chopawamsic Troop Training site a.k.a. Prince William Forest National Park

LOCATION: Prince William County (Triangle), Virginia

SITE HISTORY: In 1942, the Army acquired permit use of 9,870 acres from the Department of Interior and 1,141.23 acres in fee, by condemnation. The site was used as an Army troop training installation for the Office of Strategic Service for counter intelligence agents. The property was improved with the necessary support facilities for personnel and maintenance as well as three target ranges, a magazine, and a heating plant. The permit was terminated early 1946. Remediation and restoration measures were taken in 1947. The entire parcel was in custody of the National Park Service by 1948. The site is now referred to as Prince William Forest National Park. The property is used as picnic and camping grounds as well as a national forest reserve.

SITE VISIT: A site visit was conducted on 23 July 1992 by P. Bowen, D. Lutz, and E. Tibay. J. K. Pinkard, a Park Service ranger, was available at the Park Visitor Center for information; and another ranger, Tom Davis, guided a tour to three known existing Army buildings. Of these facilities, two were used for munitions storage. These block buildings were uninsulated and contained no heating system. One is presently being used for storage and the other is planned to be demolished under NPS supervision. Both buildings are clear of any ordnance; however, in 1985, a mortar shell was found imbedded in the roof of a building and removed by an Army demolition team.

The third building originally used as a movie theater is located about three miles from the two munitions storage facilities. It also was not heated. This building is now being used as a gymnasium for the campground.

Pinkard stated that all other buildings that existed on the premises during the time of DoD use were removed by the Army and/or the Park Service itself. The three buildings that were inspected are (or were at one time) beneficially used after DoD usage. The areas apart from the building locations are heavily wooded improved with campgrounds, picnic area, and a trailer park scattered within the 11,011.23-acre site.

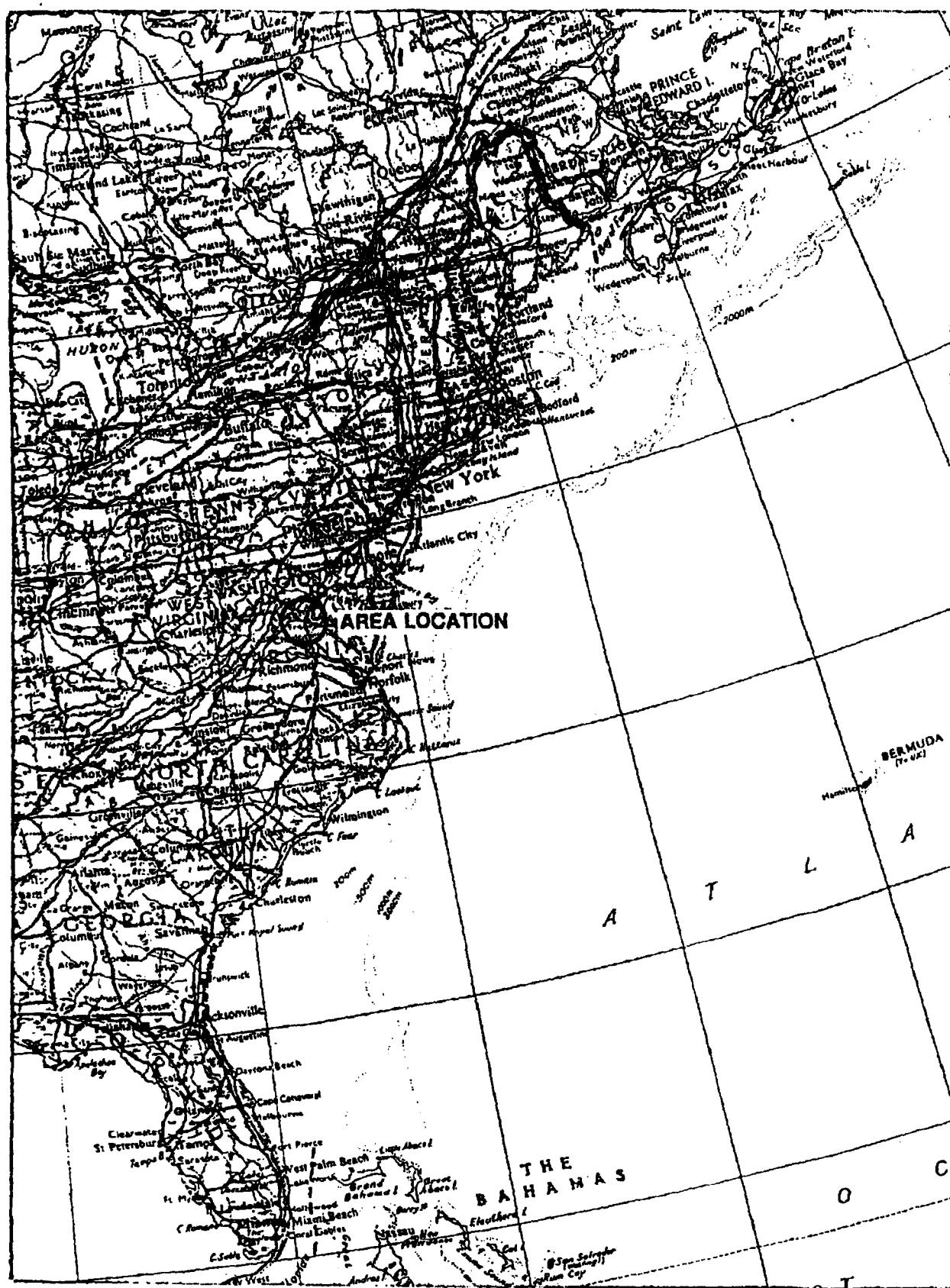
PROJECT CONDITION: An OEW project is proposed. A risk assessment code of III was determined. However, a justification is enclosed to reduce this project to a RAC of IV based on the size of the site and the limited troops using this facility.

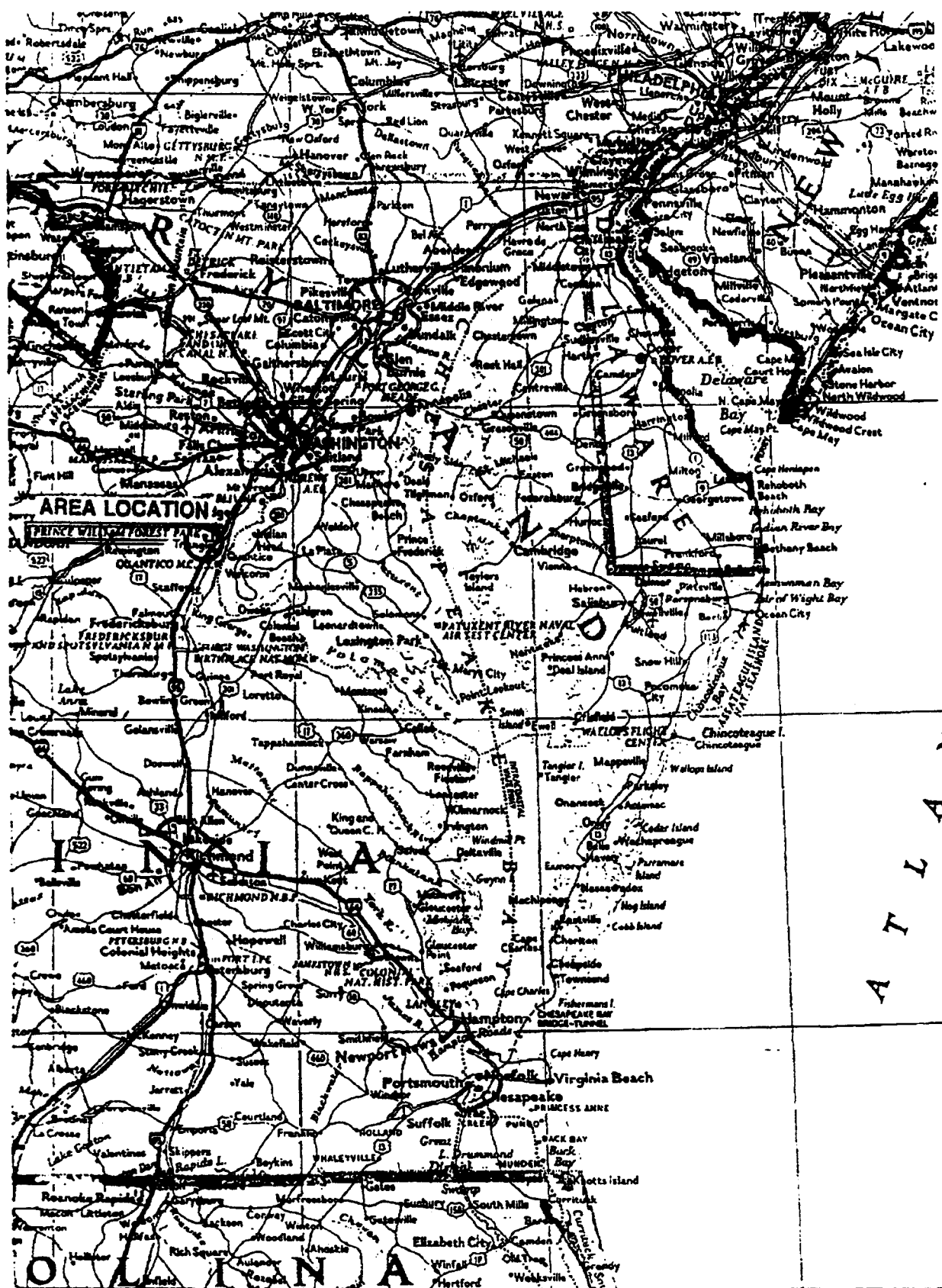
AVAILABLE STUDIES AND REPORTS: None provided.

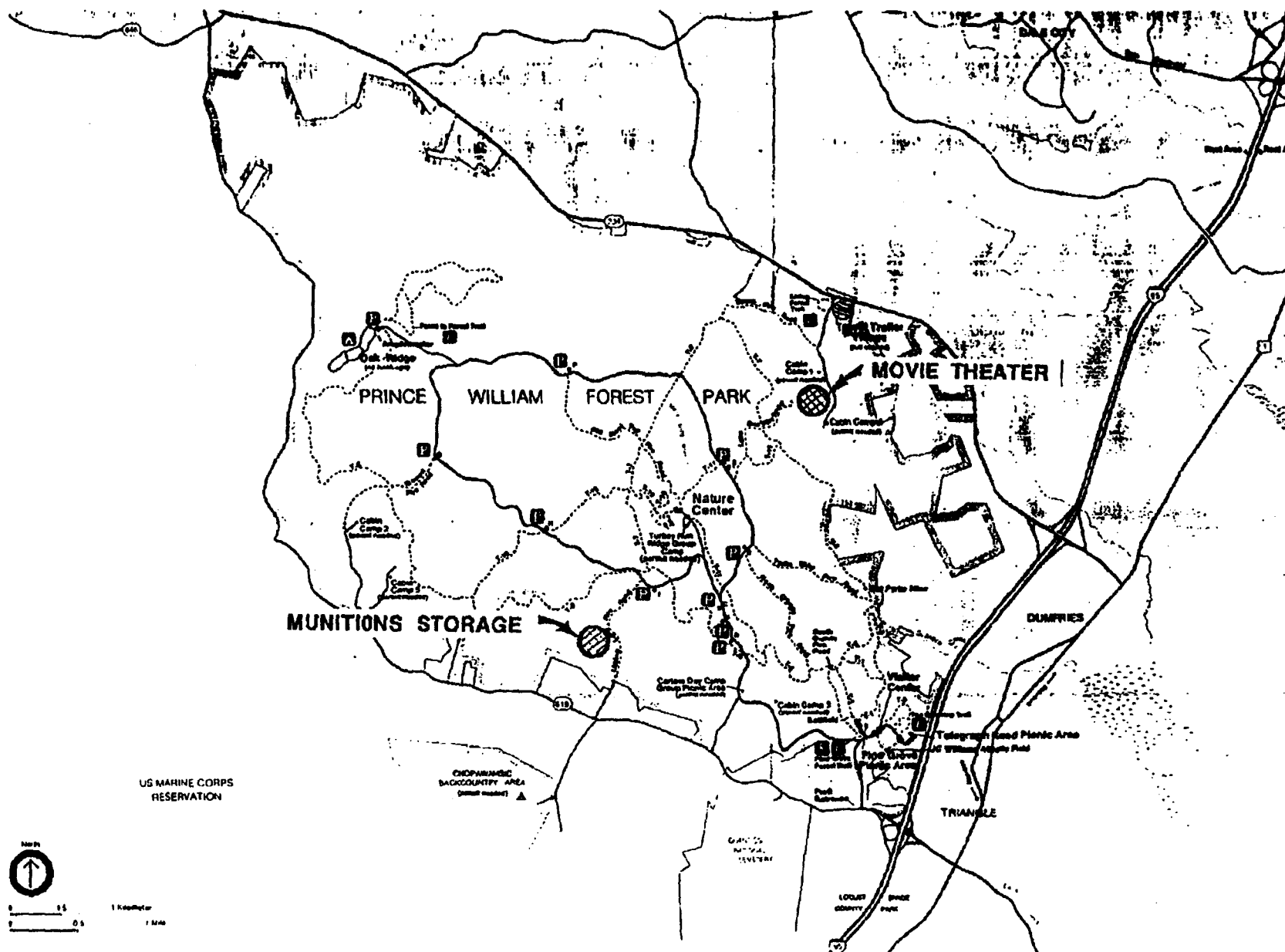
PA POC: ~~Paul R. Bowen~~, (804) 441-7669, is the District POC.

Oscar Anjoro

Encl1







CHOPAWAMSIK TROOP TRAINING SITE
SITE LOCATION MAP

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FOR FORMERLY USED SITES
FINDINGS AND DETERMINATION OF ELIGIBILITY
CHOPAWAMSIK TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VIRGINIA
Site No. CO3VA019400

FINDINGS OF FACT

1. The Army acquired the use of 9,870 acres by permit from the Department of the Interior on 16 May 1942, and acquired an additional 1,141.23 acres in fee by condemnation dated 26 September 1942.
2. The site was used as a troop training site and included Army constructed facilities for personnel support and repair. Also included were three target ranges, magazine, and a heating plant
3. Disposal was by transfer to the National Park Service. The permit was terminated on 19 February 1946, and the remaining 1,141.23 acres were transferred to the National Park Service on 23 April 1948. The National Park Service, in a letter dated 4 January 1946 stated that the property should be returned to the DOI without restoration as long as the Army buildings remained in place. Mr. Phil Bureck, of the Prince William Forest Park, stated by telephone on 6 May 1991 that he does not know of any remaining Army facilities on the lands of the National Park.

DETERMINATION

Based on the foregoing findings of fact, the site has been determined to have been formerly used by DoD. It is therefore eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites established under 10 USC 2701, et seq.

28 Sept 92
(Date)

RECOMMENDED

R. C. Johns
R. C. JOHNS
Colonel, Corps of Engineers
Commanding

12 JAN 93
(Date)

APPROVED

Paul Y. Chinen
PAUL Y. CHINEN
Brigadier General, USA
Commanding

**PROJECT SUMMARY SHEET
FOR
DERP-FUDS SITE NO. CO3VA019401
CHOPAWAMSIC TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VIRGINIA**

PROJECT DESCRIPTION: The site is approximately ten thousand acres and may contain unexploded ordnance. A mortar shell was found and removed in 1985. Location of the firing ranges and ordnance is unknown.

PROJECT ELIGIBILITY: The ordnance is definitely of DoD origin as a result of OSS troop training.

POLICY CONSIDERATIONS: The site is now used as a recreational/hunting preserve owned by the National Park Service.

PROJECT RECOMMENDATIONS: A thorough record investigation is needed to determine exact locations of target ranges and possible ordnance sites.

OEW RAC FORM: Attached.

PA POC: Paul R. Bowen, (804) 441-7669, is the District POC.

Encl6

10 Jul 1992

Previous editions obsolete

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

Site Name CHOPAWAMSIK Training Site Rater's Name PAUL BOWEN
 Site Location PRINCE WILLIAM COUNTY, VA. Organization CENAO-EN-DG
 DERP Project # 003VA019401 RAC 4

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882B and AR 385-10.

The OEW risk assessment is based upon documented evidence consisting of records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. These data are used to assess the risk involved based upon the hazards identified at the site. The risk assessment is composed of two factors, hazard severity and hazard probability.

Any field activities should be made with the assistance of qualified EOD personnel.

Part I. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPE OF ORDNANCE

A. Conventional Ordnance and Ammunition

	<u>YES</u> VALUE	<u>NO</u> VALUE	VALUE
Small Arms (.22 cal - .50 cal)	1	0	<u>1</u>
Medium/Large Caliber (20 mm and larger)	10	0	<u>10</u>
Bombs, Explosive	10	0	<u>0</u>
Bombs, Practice (w/spotting charges)	6	0	<u>0</u>
Grenades, Hand and Rifle, Explosive (MORTARS)	10	0	<u>10</u>
Grenades, Practice (w/spotting charges)	4	0	<u>0</u>
Landmines, Explosive	10	0	<u>0</u>
Landmines, Practice (w/spotting charges)	4	0	<u>0</u>
Rockets, Guided Missiles, Explosive	10	0	<u>0</u>
Detonators, Blasting Caps	6	0	<u>0</u>
Conventional Ordnance and Ammunition Value (Maximum of 10).			<u>10</u>

Encl 7a

B. Pyrotechnics(For munitions not described above.)

	YES VALUE	NO VALUE	VALUE
Munition (Container) Containing White Phosphorus or other Pyrophoric Material (i.e., Spontaneously Flammable)	10	0	<u>0</u>
Munition Containing A Flame or Incendiary Material (i.e., Napalm, Triethylaluminum Metal Incendiaries)	6	0	<u>0</u>
Flares, Signals, Simulators	4	0	<u>0</u>
Pyrotechnics Value (Maximum of 10).			<u>0</u>

C. Bulk High Explosives (Bulk explosives not an integral part of conventional ordnance; uncontainerized.)

	YES VALUE	NO VALUE	VALUE
Primary or Initiating Explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10	0	<u>0</u>
Demolition Charges	10	0	<u>0</u>
Booster, Bursting or Fuse Explosives (PETN, Compositions A, B, C, Teteryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	8	0	<u>0</u>
Military Dynamite	6	0	<u>0</u>
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc.)	3	0	<u>0</u>
High Explosives Value(Maximum Value of 10)			<u>0</u>

D. Propellants

	YES VALUE	NO VALUE	VALUE
Solid or Liquid Propellants	6	0	<u>0</u>

E. Radiological/Chemical Agent/Weapons

	YES VALUE	NO VALUE	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25	0	<u>0</u>
Radiological	15	0	<u>0</u>
Riot Control and Miscellaneous (Vomiting, Tear, etc.)	5	0	<u>0</u>

Radiological/Chemical Agent/Weapons Value (Maximum 25).

0

=====

Total Ordnance and Explosive Waste Characteristics Value (Total -
A + B + C + D + E with a Maximum value of 61).

10

Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY

Description	Category	Value
CATASTROPHIC	I	≥21
CRITICAL	II	≥13 <21
MARGINAL	III	≥5 <13
NEGLIGIBLE	IV	≥1 <5
NONE		0

* Apply Hazard Severity Category to Table 3.

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 a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION

A. Locations of Contamination

	<u>YES</u> VALUE	<u>NO</u> VALUE	VALUE
On the surface	5	0	<u>0</u>
Within Tanks, Pipes, Vessels or Other confined locations.	4	0	<u>0</u>
Inside walls, ceilings, or other parts of Buildings or Structures.	3	0	<u>0</u>
Subsurface	2	0	<u>2</u>

Value for location of UXO. (Maximum Value of 5).

2

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW site (roads, parks, playgrounds, and buildings).

<u>Distance to Nearest Target</u>	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	4
0.5 miles to 1.0 mile	3
1.0 mile to 2.0 miles	2
Over 2 miles	1

Distance to Persons Value (Maximum Value of 5).

2

C. Numbers and types of Buildings within a 2 mile radius measured from the hazardous area, not the installation boundary.

Number of Buildings	VALUE
0	0
1 to 5	1
6 to 10	2
11 to 15	3
16 to 25	4
26 and over	5

Number of Buildings Value (Maximum Value of 5).

0

Encl 7d

D. Types of Buildings (within a 2 mile radius)

VALUE

Educational, Child Care, etc.	5
Residential, Hospitals, Hotels, etc.	5
Commercial, Shopping Centers, etc.	5
Industrial Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
Military	1
No Buildings	0

Types of Buildings Value (Maximum Value of 5).

0

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

Barrier	Assigned Value
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility;	0

or

Barrier	Assigned Value
An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility).	0

Isolated site	1
Security guard, but no barrier	2
A barrier, (any kind of fence) but no separate means to control entry	3
Barriers do not completely surround the facility	3
No barrier or security system	5
Accessibility Value (Maximum Value of 5).	<u>1</u>

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

	VALUE
None Anticipated	0
Expected	5

(Maximum Value of 5)

0

Total value for hazard probability.
Sum of Values A through F.
(Not to exceed 30).

5

=====

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

TABLE 2

HAZARD PROBABILITY

Description	Level	Value
FREQUENT	A	≥27
PROBABLE	B	≥21 <27
OCCASIONAL	C	≥15 <21
REMOTE	D	≥ 8 <15
IMPROBABLE	E	<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 3. Enter with the results of the hazard probability and hazard severity values.

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
MARGINAL	III	2	3	4	4	5
NEGLECTIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

- RAC 1 Imminent Hazard - Emergency action required to mitigate the hazard or protect personnel (i.e., fencing, physical barrier, guards, etc.).
- RAC 2 Action required to mitigate hazard or protect personnel. Initial project phase--phased EECA.
- RAC 3 Action required to evaluate potential threat to personnel. Initial project phase--Archives search and site investigation.
- RAC 4 Action required to evaluate potential threat to personnel. Initial project phase--Archives search.
- RAC 5 No action required.

NOTE: Other phases may be considered depending on individual site conditions.

Justification. In narrative form, summarize the documented evidence that supports this risk assessment.

SEE ATTACHED

SEE
ATTACHED
DOCUMENT

JUSTIFICATION:

A code III, marginal probability level is obtained per the risk assessment code . However, the severity category should be considered negligible instead of marginal, resulting in a code IV. The only ordinance known to have been found since DoD occupation is the single mortar round found in 1985. But, a value of 10 to the small arms range is assigned since records indicate one existed; however, the location is unknown. The fact that the OSS operated this facility would indicate that this was a much smaller, more covert operation than normally associated with troop training. The area (>10,000 acres), is quite large with some areas reserved for camping and recreational activities while other parts of the park are remote and used only for periodic hunting. A thorough record search of the training site is the most cost effective and prudent approach to this problem. This information can then be assimilated to determine the next step. If there are any questions concerning this project contact Paul R. Bowen, (804) 441-7669, District POC.

APPENDIX C-3

**Restoration Survey, Chopawamsic Training Center,
Quantico, VA, 7 December 1945, includes Letter:
Clearance of Range Land in Chopawamsic Park).**

①

LIST OF IMPROVEMENTS TO PROPERTY
BY WAR DEPARTMENT AND/OR DAMAGES
RESULTING FROM WAR DEPARTMENT OC-
CUPANCY WITH ESTIMATED COST OF
RESTORATION, SUBMITTED PURSUANT
TO THE REQUIREMENTS OF SECTION
8305.8 OF SPB REGULATION NO. 5
DATED 9 OCTOBER 1945.

(Costs shown in BLOCK 12 - SCHED-
ULE A)

BLOCK 6 - SCHEDULE I
Form SPB-5 Report
Chopawamsic Recreational Demonstration Area
Prince William and Stafford Counties
Quantico, Virginia

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
First and Douglas Streets, N. W.
Washington 25, D. C.

602 Wash D O MAWVK

7 December 1945

RESTORATION SURVEY
CHOPAWAMSIIC TRAINING CENTER
QUANTICO, VA.

1. The Training Center consists of 44 tracts owned by the U. S. Government and under the jurisdiction of the War Department, and land under jurisdiction of the Department of Interior.

2. Land under Jurisdiction of the War Department. Forty-four tracts have been acquired, consisting of the following:

<u>Tract No.</u>	<u>Vendor</u>	<u>Direct Purchase</u>		<u>Condemnation</u>	
		<u>Acreage</u>	<u>Cost</u>	<u>Acreage</u>	<u>Cost</u>
200	Robert Taylor	8	\$2,790.00		
201	Georgia A. Norman	103	4,300.00		
202	Norman Waite	54.5	1,400.00		
203	Joseph Reid Estate			74.5	\$4,200.00
204	Walter Kendall	.222	250.00		
205	Hannah Gaines	4.5	815.00		
206	Ardella Nash			1.	400.00
207	Norman L. Henderson	.688	100.00		
208	Joe E. Clark			25.	1,050.00
209	Provie L. Henderson	.724	100.00		
210	Bertie E. Kyer	.790	100.00		
211	Cleve C. Henderson	.598	100.00		
212	James York McKay Lodge	.33	750.00		
213	Virginia Taylor			100.	4,180.00
214	Jennie V. Tuell			6.	800.00
215	Arthur E. Williams Estate			3.	500.00
216	Harvey H. Williams	3.44	150.00		
217	Charles Byrd Estate			22.5	1,500.00
218	Henry Logan Early			22.5	2,325.00
219	Harry R. & Resser V. Martin	10.9	1,610.00		
220	William E. Kindall			9.5	200.00
221	J.H.L. Davis			7.7	1,025.00
222	Albert Davis			21.	450.00
223	Annie E. Keys Estate			47.	1,050.00
224	Napoleon Watson	10.	800.00		
225	John Davis			14.6	250.00
226	Wm. Warfield Kendall	17.97	2,000.00		
227	Andrew J. Williams Estate			28.56	1,100.00
228	Quinton O. Bates			6.	1,025.00
229	Mary Elizabeth Bates	38.	1,000.00		
230	Jennie Taylor	10.	600.00		

BLOCK 6 - SCHEDULE I

Form SPB-5 Report

Chopawamsic Recreational Demonstration Area

Prince William and Stafford Counties

Quantico, Virginia

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Chopewamsic Train Center

Tract No.	Vendor	Direct Purchase		Condemnation	
		Acreage	Cost	Acreage	Cost
235	Randolph & Sarah A. Doyle			2.	\$ 500.00
236	Harry Miller	183.	\$4,425.00		
242	Fred F. Liming			33.	1,400.00
246	G. H. Matherson	1.5	125.00		
251	Joseph Abel			10.	1,100.00
252	Kyle Williams Estate			5.	800.00
253	Randolph Doyle Estate			5.	300.00
255	Lemuel W. Timmons Estate	30.	1,200.00		
256	W. W. Liming	140.	5,915.00		
257	Wilson W. Cornwell			2.	100.00
263	Annie E. Keys Estate			42.5	850.00
264	Annie E. Keys Estate			26.8	650.00
265	J. J. Murphy Estate			6.	350.00
TOTAL		618.162	\$28,530.00	521.16	\$26,105.00

* 3. Land Under Jurisdiction of the Department of Interior. A large percentage of this land is in timber. Only a few small portions of the tract were used for housing. The entire area was used for training personnel of the Office of Strategic Services. The portions used for housing personnel consisted of four groups of buildings in Area A, and 2 groups in Area C. In Area A the War Department constructed a storage magazine surrounded by a stockade fence; and a 200-yard rifle range. Three cleared areas of approximately 1 acre, 4 acres and 20 acres respectively were used for demolition. The original groups of buildings were all organized camps, operated by the National Park Service.

4. Of these camps A-2, A-5, A-3, C-1 and C-4 were built by the National Park Service. Camp A-4 was formerly a CCC Camp.

a. Camp A-2 when taken over consisted of 4 units, each having 6 cabins for 4 men each, 2 cabins for 2 men each, a lodge or recreation building and 1 latrine. Installations by the War Department in the existing latrines consisted of 1 shower, 1 urinal, 1 water heater and 1 hot water storage tank, together with the necessary piping. In addition the War Department also constructed 1 new 25-man latrine in each of the 4 units. Existing buildings, common to all of the four units, consisted of 1 craft shop, 1 central bathhouse, 1 infirm-ary, 1 staff quarters, 1 administration building, 1 helps' quarters, 1 storage building, 1 garage with 3 stalls and storeroom, 1 mess hall and 1 elevated water tank. The existing sewage disposal system was enlarged by adding a new distribution box and 1000 feet of field tile. A new 40'x60' pistol range

* See Page 5

602 Wash D O Mawvk
Chopawamsic Train Center

building was constructed in the area by the War Department. All the buildings were winterized and heated by means of space heaters which have since been removed.

b. Camp A-5 comprises 2 units. Unit A consisted of 6 cabins for 4 men each, 2 cabins for 2 men each, 1 latrine, 1 mess hall, 1 infirmary, 1 helps' quarters, and 1 craft shop. Unit B consisted of 6 cabins for 4 men each, 2 cabins for 2 men each, 1 latrine, 1 lodge or recreation building and 1 staff administration building. Both areas are supplied with water from a well and pump house in Unit A and an elevated tank in Unit B. All buildings in both units were constructed by National Park Service. The War Department winterized all buildings and heated them by means of space heaters, which have since been removed. The War Department also installed in the mess hall in Unit A the following equipment: 1 refrigerating unit, 1 dishwasher, 1 meat block, 1 deep fat fryer and 1 steam table. At the lake nearby, the War Department constructed a 16'x30' boathouse.

c. Camp A-3 comprises 3 units. Unit A, consisted of 2 cabins for 2 men each, 4 cabins for 4 men each, 4 cabins for 6 men each, 1 lodge or recreation building and 1 latrine. The War Department constructed 1 new 25-man latrine in this unit. Unit B consisted of 3 cabins for 10 men each, 1 latrine and 1 lodge or recreation building. Unit C consisted of 6 cabins for 10 men each, 1 latrine and 1 lodge or recreation building. Existing buildings, common to all three units are as follows: 1 mess hall, 1 infirmary, 1 nursery, 1 helps' quarters, 1 museum, 1 craft shop, 1 storage building, 1 administration building, 1 staff cabin for 2 men, 1 staff cabin for 6 men, 1 staff latrine and 1 elevated water tank. The War Department winterized all buildings in Camp A-3 and heated them by means of space heaters, which have since been removed.

d. Camp A-4 is a former CCC Camp, NP-16. In this camp the War Department constructed 1 new 20'x100' officers' quarters, 1 new 100-man latrine, 1 new commissary building 20'x40' + 20'x20', 1 new guard house 8'x8' and 1 new storage building 8'x10'.

e. Camp C-1 has four units. Each unit consisted of 6 cabins for 4 men each, 2 cabins for 2 men each, 1 lodge or recreation building and 1 latrine. Existing buildings common to the four units consisted of 1 machine shop, 1 mess hall, 1 infirmary, 1 storage building, 1 administration building, 1 staffs' quarters, 1 staff latrine, and 1 helps' quarters. In this camp the War Department constructed the following new buildings: 1 motor repair shop 30'x40', to replace a similar building burned during occupation by Office of Strategic Services, 1 transmitter building 30'x30' (CCC portable type), 1 storage building 16'x16', 1 latrine for 25 men 15'x24' and two guard houses 8'x8'. The War Department winterized all buildings in this camp and heated them by means of space heaters, which have since been removed.

f. Camp C-4 has 5 units. Each unit consisted of 3 cabins for 10 men each, 1 lodge or recreation building, and 1 latrine. Existing Buildings

1602 Wash D O MAWVK
Chopawamsic Train Center

common to the five units consisted of 1 mess hall, 1 craft shop, 1 infirmary, 1 nursery, 1 central bathhouse, 1 administration building, 1 staff quarters, 1 helps' quarters and 1 storage building. The War Department constructed the following new buildings: 1 officers' quarters 20'x 100'; 1 school and recreation building 20'x 100' + 40'x 100'; 3 storage buildings 16'x16'; 1 addition to mess hall 20'x60', portable type building; 1 quonset hutment 20'x60'; 1 latrine 30'x40' for 100 men, and 25 tent platforms and sidewalls for 16'x16' pyramidal tents.

5. On 6 December 1945, Capt. Ira B. Lykes, Manager of the Chopawamsic Area, was contacted and the following information obtained from him:

"The National Capital Parks of the National Park Service, U. S. Department of the Interior will accept the return from the War Department of all lands, buildings and improvements granted the War Department under the terms of the original permit, provided:

a. "That no further alterations or changes are made in the buildings or structures as now constituted and established.

b. "That the War Department or its designated agency undertake to clear all lands used by them within the Area under the permit, or other lands acquired within the bounds of the Area, of all demolitions, explosives or other dangerous explosive or combustible materials of warfare that may still remain upon the lands."

6. Captain Lykes has in his possession a letter from the Department of the Interior giving him authority to represent the National Park Service in all negotiations related to the restoration of this property.

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HEADQUARTERS
Det # 6 9800th TSU-CE
BOMB AND SHELL DISPOSAL TEAM
Chopawamsic, Va.

13 January 1946

SUBJECT: Clearance of Range Land in Chopawamsic Park

TO: Commanding Officer, 9800th TSU - CE

1. Clearance work in this former O S S installation has been completed. All areas were systematically searched which were stated by Mr. John Gum, of the park staff, to have been used for the firing of explosive projectiles; and all unexploded rounds located have been destroyed.

2. The following areas were searched (references to enclosed map):

Mortar and rocket range (40.5 - 73.8)	Approx. 3 Acres
Mortar range (44.6 - 72.0)	" 3 "
Mortar range (44.7 - 74.6)	" 1 "

Three abandoned houses used for practice in booby - trapping were searched and cleared. The magazine area and the hand - grenade court were guaranteed to be long since cleared* and checked by him; so those two areas were not searched. *(by Mr. Gum)

3. The areas investigated, as reported above, are believed to be free of danger; and it is recommended that they be released as entirely suitable for their intended use: i.e., game preserve and public recreational grounds.

s/ Charles E. Spear
CHARLES E. SPEAR
1st Lt, CE
Commanding

1 Enclosure:
CSS Map of area

Note: The areas referred to in letter above are shown on map 1, Block 6 - Schedule K, herewith, as follows:

<u>Letter Reference</u>	<u>Map Indication</u>
Mortar and rocket range (40.5 - 73.8), Approx. 3 acres	20 acres
Mortar range (44.6 - 72.0), Approx. 3 acres	1 acre
Mortar range (44.7 - 74.6), Approx. 1 acre	4 acres

BLOCK 6 - SCHEDULE L
Form SPB-5 Report

Chopawamsic Recreational
Demonstration Area, Va.

* Note:

With reference to paragraph 3, page 2, this schedule, the following additional information is furnished:

Two magazines, 24' x 42', are located on Tract No. 229, acquired by the War Department from M. E. Bates.

The two hundred yard rifle range is believed to be located on National Park Service land but may lie partly on Tracts 224 or 230, acquired by the War Department from N. Watson, Jr., and Jennie Taylor, respectively.

The one acre demolition area is located entirely on Tract No. 256, acquired by the War Department from W. W. Liming.

The four acre demolition area is located entirely on Tract No. 208, acquired by the War Department from J. E. Clark; however, the effects of the demolition work carried on at this area may have extended to War Department-owned Tract No. 213.

The twenty acre demolition area is located entirely on Tract No. 201, acquired by the War Department from G. A. Norman.

Chopowamsic Park Area

Tract 201

There is no metes and bounds description of this tract available in the Clerk's Office of Prince William County, Virginia. The best description obtainable is as follows:

All that certain piece or parcel of land situate on the Warrenton and Potomac Road, near Belle Haven Church, in Prince William County, Virginia, and bounded by the road and the lands of C. H. Holmes, D. G. Holmes, C. H. Randall, Thomas Randall and others, and known as the Thomas Jones Farm, containing 111 acres, more or less.

Being a portion of the property conveyed to Thomas Jones by Daniel Cole and wife by deed dated May 13, 1825, recorded in D. B. 10, page 66, and having passed upon the death of said Jones intestate to his heirs; the interests of said heirs and their descendants, with the exception of the interest of L. E. Jones, having been acquired by William T. Jones by deed dated May 30, 1900, recorded in D. B. 49, page 328, by deed dated December 1, 1900, recorded in D. B. 49, page 327, by deed dated July 25, 1908, recorded in D. B. 58, page 307, and by inheritance from Frances Jones; said William T. Jones having died intestate his interest in the property was inherited by Georgia A. Norman as his sister and sole distributee and surviving heir at law according to list of heirs of said William T. Jones recorded in D. B. 76, page 449; said Georgia A. Norman having theretofore acquired the interest of L. E. Jones by deed duly recorded and also acquired an interest in the property by inheritance from Frances Jones.

Less and except eight acres, more or less, conveyed to Robert Taylor by Georgia A. Norman by deed dated September 6, 1935, recorded September 6, 1935, in D. B. 96, page 24.

CHOPAWAMSIK PARK AREA, VA

TRACT NO. 213

That certain piece or parcel of land situated in the County of Prince William, State of Virginia, being bounded on the northeast by the land of the Department of Interior; on the northeast by the land of Joe Clark; on the East by the land of the Department of Interior; on the South and northwest by the land of the Department of Interior.

Being the same land as that devised to Virginia Taylor from Robert A. Taylor, her husband, in a will dated January 11, 1937, and recorded in Will Book 4, Page 74, in the Office of the Clerk of Prince William County, Virginia, and more particularly described as follows: Beginning at a point (1), said point being on Highway No. 620, 4450 feet southerly from the intersection of Highways No. 620 and No. 644; thence South 26 degrees 50 minutes 20 seconds East 390 feet to a point; thence South 32 degrees 35 minutes 50 seconds West 644.25 feet to a point; thence North 59 degrees 15 minutes 50 seconds West 583.90 feet to a point; thence North 65 degrees West 2200 feet to a point; thence North 41 degrees East 1480 feet to a point; thence South 81 degrees 43 minutes 40 seconds East 1766.33 feet to a point; and thence South 26 degrees 50 minutes 20 seconds East 150 feet to the point of beginning, and containing 100 acres, more or less.

Chopowamsic Park Area

Tract 224

All that certain tract or parcel of land situate on Quantico Run, in Prince William County, Virginia and bounded and described as follows:

BEGINNING at (1) a point about the center of said run and 1 pole from a Birch on bank of the run, thence with said run and the lines of Liming, S. $60^{\circ} 06'$ W. .25 poles to a stake in said line; thence N. $33^{\circ} 34'$ W. 44.3 poles to a stone in Bates line at (3) thence with Bates line N. 57° E. 14.5 poles to a marked white oak on the south bank of the run at (4) a corner to Bates; thence down the run and making it the line to (1) the beginning and containing ten acres, more or less. Said land being a part of the Julia Chapman Tract and was conveyed to Henry Jones by deed from James Spence dated July 12, 1909 and recorded in D. B. No. 58, page 405 of the Land Records of Prince William County, Virginia.

Chopowamsic Park Area

Tract 229

All that certain tract or parcel of land lying and being in Dumfries Magisterial District, Prince William County, Virginia, and bounded as follows: on the North by the land of Jennie Taylor; on the East by the land of Sarah A. and Randolph Doyle; on the South by the land of W. W. Liming, and on the southwest and northwest by the land of the Department of Interior, and Highway No. 620. This tract of land being bisected in the northwestern portion by Highway No. 620 in a general northeasterly-southwesterly direction, and the southwestern portion of this tract being bisected by Highway No. 620 in a general northwesterly-southeasterly direction, and more particularly described as follows:

All that certain tract or parcel of land lying and being situate in Dumfries Magisterial District, Prince William County, Virginia, and bounded and described as follows, to-wit:

BEGINNING at a marked white oak on the hill side, corner to Chapman's; thence with Chapman's line North 32 West 94 poles to a cherry tree stump and stone on a hill; thence through the tract South 53 West 69 poles to a stone pile near a pine and cedar, in the outline of the tract; thence with the outline South $14\frac{1}{2}$ East 63 poles to a stake in place of a poplar stump, and thence North $75\frac{1}{2}$ East 92.2 poles to the beginning, containing 38 acres, 1 rood and 24 poles, more or less, and being the same land which was conveyed by James A. Hammond to William W. Liming by deed bearing date October 2, 1911, and recorded in D. B. 61, page 334 of the Land Records.

Under and by virtue of authority of a decree of the Circuit Court of Prince William County, Virginia, rendered at the December term, 1912, in the said Chancery Cause of Bates et als v. Liming et als. Appointing and directing the said C. E. Nical as Special Commissioner to convey unto said Mary Elizabeth Bates a certain tract or parcel of land lying and being situated in Prince William County, Virginia.

Being the same property conveyed to Mary Elizabeth Bates, wife of Issie Bates by C. E. Nical, Special Commissioner of the Circuit Court of Prince William County, Virginia, in the Chancery cause of Bates, et al vs. Liming, et al., lately pending in the Circuit Court of Prince William County, by deed dated January 25, 1913, recorded January 29, 1913 in D. B. 63, page 203.

Being the same property conveyed to United States of America by Mary Elizabeth Bates, widow, by deed dated October 23, 1942, recorded October 23, 1942, D. B. 109, page 501, Prince William County, Virginia.

Chopowamsic Park Area

Tract 230

All that certain tract or parcel of land lying and being in Dumfries Magisterial District, Prince William County, Virginia, and bounded as follows: on the North by the land of Napoleon Watson, Junior; on the southeast by the land of the Department of Interior; on the South by the land of Mary Elizabeth Bates, and on the West by Highway No. 620, and more particularly described as follows:

Beginning on the County Road at the North corner of Henry Jones land marked by stone and stake, thence with said road southwest to Hammonds line to a stone near a big walnut tree, thence southeast to a marked mulberry in Hammonds Spring Branch; thence due East to Jones corner, then to the beginning, containing ten acres, more or less.

Chopowamsic Park Area

Tract 256

All that certain tract or parcel of land lying and being in Dumfries Magisterial District, Prince William County, Virginia, and bounded as follows: on the northeast by the land of the Department of Interior; on the southeast by the lands of the Department of Interior, the Lemmel W. Timmons Estate and the Department of Interior; on the South by the lands of the Department of Interior and May V. and G. H. Matherson; on the West by the Department of Interior, and on the northwest by the lands of the Department of Interior and Mary Elizabeth Bates. This tract of land being bisected by Highway No. 620 in a general northerly-southerly direction, and more particularly described as follows:

Beginning at a large poplar corner to Dr. Triplett's Division in the Wells Tract, running thence with said Triplett's line 1st North 74 degrees 10 East 150 poles to a marked red oak by a stake in said Triplett's line, corner to Dr. Spencer's division in Wells Tract, thence with said Spencer's line 2nd South 13 degrees 50 minutes East 154 poles to a stake supposed to be in Montgomery's line, thence 3rd South 65 degrees 30 minutes West 132 poles to a stake in a wood, thence 4th North 43 degrees West 143 poles to a large white oak in Bennett's line, thence 5th with Bennett's line North 27 degrees 15 minutes East 62 poles and 12 links to the beginning, containing 166 acres, more or less.

Less and Except one and one-half acres conveyed by John F. Liming to Jacob Liming by deed dated August 24, 1901, and recorded in D. B. 52, page 71; (2) three and one-sixteenth acres conveyed by John F. Liming to John W. Liming by deed dated August 15, 1908, and recorded in Deed Book 57, page 417; (3) one acre conveyed by John F. Liming to Jno. F. Patterson by deed dated March 26, 1907 and recorded in D. B. 59, page 236; (4) Eighteen and one-fourth acre conveyed by W. W. Liming to John W. Liming by deed dated August 2, 1919 and recorded in D. B. 72, page 473.

COMMAND INSTALLATION
Chopawamsic Training Center

7 February 1945

Manager: National Park Service

Location: Quantico, Virginia

Land purchased by War Dept. — \$ 54,635
New Construction by War Dept. — 128,040

Number	Description	Estimated Construction Cost	Cost of Removal	Gross Salvage Value	Net Salvage Value	Restoration
1.	2 Magazines -- tile walls, wood roofs 24'x42' ea with approx 1500 lin ft of stockade fence and entrance road	\$ 14,000	\$ 2,750	\$ 650	\$ -2,100	\$ 100
2.	<u>Camp A-2.</u>					
	a. 25-man latrine with facilities, frame, conc floor, 15'x24' @ \$4000	16,000	1,200	400	-800	400
	b. Pistol range bldg., frame, 40'x60'	2,000	600	100	-500	100
	c. Guard house, frame, 8'x8'	250	20	10	-10	---
3.	<u>Camp A-5.</u>					
	Boat house, frame, 16'x30'	500	150	50	-100	---
4.	<u>Camp A-3.</u>					
	25-man latrine with facilities, frame, conc floor, 15'x24'	4,000	300	100	-200	100
5.	<u>Camp A-4.</u>					
	a. Officers' Qrtrs, frame, 20'x100' (Inc sewage disposal field)	13,000	600	100	-500	300
	b. 100-man latrine with facilities, frame, conc floor, 30'x40'	10,000	500	100	-400	250
	c. Commissary Bldg, frame, 20'x40' + 20'x20', salvaged material	500	350	50	-300	50
	d. Storage bldg, frame 8'x8'	250	20	10	-10	---
	e. Guard house, frame, 8'x8'	250	20	10	-10	---
	f. Target rifle range -- 1500 cu yds grading and wood shelters	2,000	50	10	-40	1500
6.	<u>Camp C-1.</u>					
	a. Motor repair bldg, frame, conc floor, 30'x40'	4,500	500	50	-450	50
	b. Transmitter bldg, CCC portable type, 30'x30'	900	100	20	-80	10
	c. Storage bldg, plywood, 16'x16'	560	20	5	-15	---
	d. 25-man latrine with facilities, frame, conc floor, 15'x24'	4,000	300	100	-200	100
	e. Guard house, frame, 8'x8'	250	20	10	-10	---
7.	<u>Camp C-4.</u>					
	a. Officers' Qrtrs, frame	10,000	600	100	-500	300
	b. School and Recreation Bldg, frame, 20'x100' + 40'x100'	24,000	2,400	500	-1900	150

BLOCK 12 - SCHEDULE A

Form SPB-5 Report

Chopawamsic Recreational Demonstration Area

Prince William and Stafford Counties

Quantico, Virginia

7 December 1945

Item Number	Description	Estimated Construction Cost	Cost of Removal	Gross Salvage Value	Net Salvage Value	Restoration
c.	Storage bldg, plywood, 16'x16', 3 ea @ \$560	\$ 1,680	\$ 60	\$ 15	\$ -45	\$ ---
d.	Quonset hutment, metal, 20'x60'	2,000	150	150	---	50
e.	Addition to existing mess hall, frame 20'x80'	3,000	200	50	-150	80
f.	100-man latrine with facilities, frame, conc floor, 30'x40'	8,000	500	100	-400	250
g.	6 Target rifle range, 100 cu yds excavation and shelters	600	50	10	-40	100
h.	8 Target pistol range, 1000 cu yds excavation and shelters	800	100	10	-90	1000
i.	16'x16' wood tent platform and side walls, 25 @ \$200 ea	5,000	500	125	-375	50
8.	<u>Demolition Area.</u>					
a.	1 Acre area	---	---	---	---	50
b.	4 Acre area	---	---	---	---	200
c.	20 Acre area	---	---	---	---	1000
	TOTALS	\$ 128,040	\$12,060	\$2,835	\$-9,225	\$6,190
	Cost of Removal.					12,060
	Combined Cost of Removal and Restoration					18,250
	Less Gross Salvage Value					2,835
						\$15,415

Total funds required for
removal and restoration \$18,250.

Note: Government cost and contingencies
are included in above figures.

APPENDIX C-4
Explosive Ordnance Incident Report
January 1993

EXPLOSIVE ORDNANCE INCIDENT REPORT For use of this form, see FM 9-15; the proponent agency is US Army Training and Doctrine Command.		1. UNIT NUMBER 57-26-93	2. TROL NUMBER	3. UNUSUAL <input type="checkbox"/>	4. ROUTINE <input checked="" type="checkbox"/>
SECTION A: INITIAL INFORMATION					
5. DATE/TIME REPORTED 311204JAN93		9. INCIDENT LOCATION Prince William Forest Park Prince William, VA		off post	
6. REPORTED BY SGT Pressy		10. POINT OF CONTACT Ranger Pinkerd		11. ITEM(S) REPORTED Bazzooka round	
7. PHONE NUMBER 703-806-3105					
8. ADDRESS FBVA MP Station					
SECTION B: ACTION BY EOD					
12. PERSONNEL DISPATCHED SSG Schultz SGT Braddy		13. DATETIME A. DEPT 311330JAN93 B. ARR 311445JAN93 C. COMPL 311630JAN93		14. TRAVEL DATA A. AIR: FLYING TIME B. VEH: MILEAGE 40	
15. WORK HOURS A. TRAVEL 2 B. INCIDENT 4		16. CONFIRMED IDENTIFICATION 1 ea 2.36 Bazzooka round		17. DISPOSITION BIP	
		18. INCIDENT NARRATIVE (INCLUDE ALL SIGNIFICANT DETAILS AND PROBLEMS) Notify - DPSEC/SDO (Name/Time) Depart _____ Return _____ Control " " Depart _____ Return _____ 1. Lights and siren used: Yes ___ No <input checked="" type="checkbox"/> 5. Date destroyed: <u>Same as 13 C</u> 2. Publicity: Yes ___ No <input checked="" type="checkbox"/> By (Sign) <u>[Signature]</u> 3. Evac Requested: Yes <input checked="" type="checkbox"/> No ___ Witness (Sign) <u>[Signature]</u> 4. SIR: Yes ___ No <input checked="" type="checkbox"/> 6. Explosives used: C-4 ¹ ___; Caps ³ ___; Fuse ²³ ___; M60 ³ ___			
SECTION C: AUTHENTICATION					
19. NAME AND GRADE AND SIGNATURE OF UNIT COMMANDER <u>Walter K. Angles</u> WALTER K. ANGLES, CPT, OD, Cdr			20. TELEPHONE NO 806-6006		21. DATE 1 Feb 93

APPENDIX D
HISTORICAL PHOTOGRAPHS



2.36" ROCKET BODY FOUND



D-1

CHOPAWAMSIC TROOP TRAINING SITE
PRINCE WILLIAM COUNTY, VIRGINIA
DERP-FUDS* C03VA019401
1953 AERIAL PHOTO

NOT TO SCALE

PROJ. DATE: MAR. 1995

DATE OF PHOTO: 1953

30-MAR-1995 09:34

/N/0EW95AB/G4/PHOTO/CHOP53A.DGN,EXT

APPENDIX E

INTERVIEWS

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT**
for the former
CHOPAWAMSIK TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401

APPENDIX E -- INTERVIEWS

<u>Individual Contacted/Interviewed</u>	<u>Position/Organization</u>
John W. Brunner, Ph.D.	Historian, Former OSS Agent 328 N. 26th Street Allentown, PA 18104-4924 (610) 434-0763
Hal Christensen	Former OSS Agent 4605 Twinbrook Drive Fairfax, VA 22032 (703) 323-6986
Michael B. Shaver	National Park Ranger, Prince William Forest Park Historian Cultural Resource Management Interpretation & Visitor Services P.O. Box 209 Triangle, VA 22172 (703) 221-7181

TELEPHONE OR VERBAL CONVERSATION RECORD

DATE 27-Feb-1995

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Chopawamsic Troop Training Area (a.k.a. Prince William Forest Park)		
OUTGOING CALL		
PERSON CALLING Fred Miller, Historian	ADDRESS CELMS-PD-R	PHONE NUMBER AND EXTENSION (314) 331-8792
PERSON CALLED John W. Brunner, Ph.D. Historian	OFFICE 328 N. 26th Street Allentown, PA	PHONE NUMBER AND EXTENSION (610) 434-0763
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION

SUMMARY OF CONVERSATION: During the afternoon of 6 February 1995, I called Dr. Brunner from the Hilton Hotel in Springfield while conducting local research on the Chopawamsic Troop Training Site. Dr. Brunner was an agent for the Office of Strategic Services (OSS) during World War II and is now a historical scholar assessing the files being released on OSS by the CIA. Dr. Brunner is the author of a book entitled "OSS Weapons", which was published in 1994. Dr. Brunner was trained by the OSS staff during World War II at the Chopawamsic Troop Training Area. He described the site as two divided areas. Area A generally located in the Southeast portion of the site was utilized for demolition and explosive training, including incendiaries. One type of "pocket size" explosive he mentioned was called "the Clam". Area A also had an assortment of fuses. Area C generally located in the North and West portions of site (formerly the Boy Scout camp of the Chopawamsic Recreational Demonstration Area) was used for communications training. Area C also included weapons ranges for the pistol (.45 Cal), M1 rifle, carbine, and other guerilla type weapons. He said Area C also consisted of an aerial target range for pistols. Areas A and C had open fields where the Thompson sub-machine gun (M1A1) and the M3 sub-machine gun were fired. On the West side of the site, Dr. Brunner recalls "live" hand grenades being thrown into a ravine. He also speculated that mortars, known as "Spigots", may have been tested in Area A. A variation of the "Spigot" is the "Tree Spigot Gun", which is a light portable weapon capable of throwing a fairly heavy bomb charged with 1.36 kg of H.E. up to about 200 meters. The "Tree Spigot Gun" was embedded in a tree or

FORM DA751

other support to take the weapons recoil. Dr. Brunner said that former OSS personnel periodically have a reunion and walk the site. During the last reunion, about 3 years ago, he heard that explosive devices of some kind were found in rain gutters of structures in Area C. He also heard that a mortar or bazooka rocket was recently found in Area A. The next OSS reunion is scheduled for October 1996. A newsletter is usually sent to members attending the reunion recounting former activities at the site. Dr. Brunner said he spoke with the Park Ranger at Prince William Forest Park about his experiences and provided him with historical maps of the former OSS training site. For more information about the former OSS training site, Dr. Brunner referred me to two textual sources, one entitled "Prince William County: A Pictorial History" by D'Anne Evans, the other being "The Official History of the OSS, Schools and Training Branch". In addition, Dr. Brunner also referred me to an associate of his, Hal Christensen, who is also a former OSS agent. He may have other referrals later. Finally, Dr. Brunner talked about the suppression of information of OSS activities by the CIA, particularly in regard to a site known as the Congressional Country Club near Washington, D.C.. He said the Congressional Country was involved in experimentation of "truth drugs", biological warfare and produced new and exotic OSS weapons.

TELEPHONE OR VERBAL CONVERSATION RECORD

DATE 27-Feb-1995

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Chopawamsic Troop Training Area (a.k.a. Prince William Forest Park)		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		
PERSON CALLING Fred Miller, Historian	ADDRESS CELMS-PD-R	PHONE NUMBER AND EXTENSION (314) 331-8792
PERSON CALLED Hal Christensen	OFFICE Home Address: 4605 Twinbrook Drive Fairfax, VA 22032	PHONE NUMBER AND EXTENSION (703) 323-6986

SUMMARY OF CONVERSATION: During the afternoon of 6 February 1995, I spoke with Hal Christensen while conducting local research on our site. Hal Christensen, a former OSS agent, was referred by Dr. Brunner, author of "OSS Weapons". Hal Christensen recalled his experiences at the Chopawamsic Troop Training Area during World War II (Fall, 1943 and again in 1945). His training in Area C included instruction in close combat with piano wire, "live fire" at "pop-up" targets with pistols and sub-machine guns, setting shaped charges and explosives (TNT, Plastic C) and making field expedient munitions (such as molding TNT blocks for grenades). He also remembers "OSS communications" training. Hal Christensen said he provided information on his experiences to Mike Schaefer, Park Historian, Prince William Forest Park. He also stated that former OSS agents, who trained at Chopawamsic Troop Training Area, periodically held a reunion and published a newsletter with pictures on their visits to the former OSS training site. Hal Christensen said Mike Schaefer should have copies of this newsletter.

TELEPHONE OR VERBAL CONVERSATION RECORD

DATE 27 FEB 95

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Chopawamsic		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		
PERSON CALLING Sue Milhiser	ADDRESS PM-M	PHONE NUMBER AND EXTENSION (314) 331-8897
PERSON CALLED Mike Schafer	OFFICE Prince William Forest Park	PHONE NUMBER AND EXTENSION (703) 221-7181

SUMMARY OF CONVERSATION:

Called to confirm the site visit with Mike Schafer. He will be expecting the site visit team on Wednesday, March 1. I pulled for an 0800 start time, but he doesn't usually get there until 0830. He will try to be early on Wednesday so the team should get there between 0800 and 0830.

Mike Schafer requested that we provide a FAX to the headquarters office requesting his time for the Wednesday visit. FAX number is 703 221-4322 and it should be addressed to Superintendent, Prince William Forest Park and a cc to Mike.

APPENDIX F
NEWSPAPERS/JOURNALS
NOT USED

APPENDIX G
PRESENT SITE PHOTOGRAPHS

ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
for the former
CHOPAWAMSIC TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401

APPENDIX G -- PRESENT SITE PHOTOGRAPHS

PAGE	DESCRIPTION
<u>Page G-1</u>	
Photo #1	2.36" rockets previously found on site.
Photo #2	Steel I-Beam found in Demolition Area "D".
<u>Page G-2</u>	
Photo #3	Target posts on night firing course (Range "G"). Expended .45 caliber rounds found embedded in posts.
Photo #4	Remaining magazine - typical of two (2) originally on site.
<u>Page G-3</u>	
Photo #5	Target gun removed (Range "B"). Family burial plot adjacent on the right (not shown).
Photo #6	2.36" rocket warhead body. Location on Range "B": N 30° 34' 57.1" W 77° 25' 30.2"
<u>Page G-4</u>	
Photo #7	Target with 20 mm gun (Range "B").



#1 2.36" rockets previously found on site.



#2 Steel I-Beam found in Demolition Area "D".



**#3 Target posts on night firing course (Range "G").
Expend .45 caliber rounds found embedded in posts.**



#4 Remaining magazine - typical of two (2) originally on site.



**#5 Target gun removed (Range "B").
Family burial plot adjacent on the right (not shown).**



**#6 2.36" rocket warhead body.
Location on Range "B": N 30° 34' 57.1"
W 77° 25' 30.2"**



#7 Target with 20 mm gun (Range "B").

APPENDIX H
HISTORICAL MAPS/DRAWINGS

APPENDIX I

FINALIZATION DOCUMENTS

NOTE: The following Technical Advisory Group (TAG) package lists the Project Number as C03VA019402 for Chopawasmic Troop Training Site. Currently, Project Number C03VA019402 does not exist.

The correct Project Number is C03VA019401.



REPLY TO
ATTENTION OF:
CEHNC-OE-AI

DEPARTMENT OF THE ARMY
HUNTSVILLE CENTER, CORPS OF ENGINEERS
P.O. BOX 1600
HUNTSVILLE, ALABAMA 35807-4301

24 April 1997

MEMORANDUM FOR Commander, U.S. Army Engineer District, St. Louis
ATTN: CELMS-PM-M (Mr. Mike Dace), 1222 Spruce
Street, St. Louis, MO 63103-2833

SUBJECT: Results of Technical Advisory Group (TAG) Review of
Archives Search Reports (ASR) and Fact Sheets for Defense
Environmental Restoration Program-Formerly Used Defense Sites
(DERP-FUDS). The following ASRs and Fact Sheets have been
finalized:

<u>Project Number:</u>	<u>Site:</u>
J09CA076600	Camp Beale
J09CA013600	Camp Beale and Beale Air Force Base
B07NE006201	McCook Precision Bombing Range No. 2
B08SD086401	Rapid City Air-To-Ground Gunnery Range
F10WA028100	Ephrata Army Air Field
K06NM044501	Kirtland Air Force Base Precision Bombing Ranges N-1, N-3, N-4 and "New" Demolitions
C03VA019402	Chopawasmic Troop Training Site
E05MI000600	Fort Custer
E05MI001303	Fort Custer Recreation Area
J09CA026201	Cadiz Lake Sonic Target # 8

1. Recommended strategy for future actions to be taken by the Project Manager is included in attached fact sheets. Supporting data from TAG decisions is also included with the fact sheets.
2. Fact sheets and supporting data are to be distributed with the subject ASRs.
3. Subject ASRs are considered to be final when attached fact sheets and supporting data are included as a part of the project package.
4. The POC is Mr. Danny Mardis at 205-895-1797, DSN 760-1797, and FAX 205-895-1737.

FOR THE DIRECTOR OF ORDNANCE
AND EXPLOSIVES TEAM:

Encls

DANNY R. MARDIS
Archive Search Report Manager
for Ordnance and Explosives Team



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
HUNTSVILLE CENTER, CORPS OF ENGINEERS
P.O. BOX 1600
HUNTSVILLE, ALABAMA 35807-4301

CEHNC-OE-AI (200-1c)

6 January 1997

MEMORANDUM FOR Commander, U.S. Army Engineer District, Saint Louis, ATTN:
CELMS-PM-M (Mr. Mike Dace), 1222 Spruce Street, Saint Louis,
MO 63103-2833

SUBJECT: Results of the Technical Advisory Group's (TAG) Review of Archives Search Reports (ASR) for Defense Environmental Restoration Program-Formerly Used Defense Sites (DERP-FUDS) **Chopawamsic Troop Training Site (C03VA019402)**, Winona Bombing Target #2 (J09CA016801), Winona Bombing Target #1 (J09CA016701), Pierce ATG Gunnery Range (B07NE006301), Newton Anti-Aircraft Battery Tact Facility (D01MA052601), Fort Andrew (D01MA051401), Sioux City PBR #2 (B08SD086701), and Rose Island Naval Torpedo Station (D01RI041901)

1. Subject ASRs were reviewed by the CEHNC TAG. Recommended changes are addressed in enclosed CEHNC Form 7. ASRs should be revised by the District to support the recommended changes.
2. Corrected pages per paragraph 1 above should be submitted to CEHNC-OE-AI for review/approval prior to subject ASRs being considered final and ready for distribution.
3. Revise paragraph 1 of subject ASRs in accordance with guidance provided by CEHNC-OC, Ms. Margaret Simmons.
4. The ASR for Pierce Air-to-Ground Gunnery Range (B07NE006301) and Sioux City PBR No. 2 (B08SD086701) was reviewed by the CEHNC TAG and considered final with no changes recommended.
5. The POC is Mr. Danny Mardis, commercial (205) 895-1797, DSN 760-1797, and FAX (205) 895-1737.

FOR THE DIRECTOR, ORDNANCE
AND EXPLOSIVES TEAM:


DANNY R. MARDIS
ASR Manager

56
4/95

**RESTORATION INFORMATION MANAGEMENT SYSTEM
FORMERLY USED DEFENSE SITES (FUDS)
PROJECT FACT SHEET**

4/27/95

HNC REVISION: 8 October 1996

TAG REVIEW DATE: 17 October 1996

1. SITE NAME: Chopawamsic Troop Training Site

SITE NUMBER: C03VA019400

LOCATION:

County Prince William
State Virginia

PROJECT NUMBER: C03VA019402

CATEGORY: OE

INPR RAC: 4

ASR RAC: 1

2. POC'S:

TECHNICAL MANAGER:

Name: Karl Blankinship
Office: CEHNC-OPE-DG
Phone: 205-895-1548

GEO DISTRICT POC:

Name: Kirk Stevens
Office: CENAO-PM-E
Phone: 804-441-7069

GEO DIVISION POC:

Name: Celia Orgel
Office: CENAD-PP-S
Phone: 212-264-6484

HEADQUARTERS POC:

Name: J. R. Gibson
Office: CEMP-RF
Phone: 202-761-4709

SUPPORT DISTRICT (ASR) POC:

Name: Dennis Gilmore
Office: DELMS-PM-M
Phone: 314-331-8108

3. SITE DESCRIPTION: The former Chopawamsic Troop Training Site was a World War II era installation used for the training of counter intelligence agents of the Office of Strategic Services (OSS). The site, consisting of 11,011.23 acres, extends westward from Interstate 95 and is bordered by the U.S. Marine Corps

Reservation, Quantico on the south and State Route 234 on the north. The site is currently a portion of the National Park Service's (NPS) Prince William Forest Park (PWFP).

4. SITE HISTORY: In 1933, the Federal Government acquired 17,000 acres of depleted farmland in Prince William County, Virginia, and established the Chopawamsic Recreation Demonstration Area (RDA). In 1940, Congress directed that the area be administered as a part of the National Capital Park system. As early as 1938, military maneuvers had been conducted in the park by forces from Quantico Marine Base and Fort Belvoir. By 1942 the practice of military maneuvers had become commonplace. During World War II, parts of the park were utilized for military training purposes, and 4,862 acres of land south of Virginia State Route 619 are still under special use permit to the Department of the Navy for Marine training purposes.

From 1942 to 1945, Chopawamsic RDA was closed and was used by the U.S. Army's Office of Strategic Services (OSS), the forerunner of the CIA. Chopawamsic RDA became a school for the training of agents in the art of espionage.

The OSS staff ran both basic and advanced training at the same time in different sections of Chopawamsic, known as Areas A and C. Paramilitary training included the use of pistols, revolvers, carbines, rifles, sub-machine guns, mortar guns, mortars, rockets, grenades, military demolition and explosives. An assortment of OSS sabotage and "booby-trap" devices (incendiary, demolition and contact firing types) were also probably used. "Live fire" ranges were established for each type of weapon system.

Shortly after World War II, in 1946, the special use permit for Chopawamsic RDA by the War Department was terminated. A restoration survey was conducted by the U.S. Army Corps of Engineers listing improvements to the property by the War Department and/or damages resulting from War Department occupancy.

At the end of World War II, Chopawamsic RDA, now Prince William Forest Park, was supposedly cleared of unexploded ordnance.

As recently as 1993, the 57th EOD at Ft. Belvoir, VA, reported an incident involving a bazooka round. Earlier in 1985, a mortar shell was found embedded in the roof of a building and removed.

5. PROJECT DESCRIPTION:

Area A

Size, Acres:	11,011.23
Former Use:	WW II Troop Training Installation
Present Use:	Prince William Forest Park (National)
Probable End Use:	Same
Ordnance Presence:	Confirmed
Types:	SAA, 2.36 inch rockets, Mortars
Ordnance Presence:	Potential
Types:	Hand and Rifle Grenades, Demolition Charges, Detonators, Blasting Caps, Incendiary Booby-Traps

The historical review indicated that potential danger areas included 10 target ranges and 3 demolition areas. Demolition areas covered 4 acres on old Route 643, 1 acre on Route 620 (North of Route 626 intersection) and 20 acres on Route 626 and Route 619. Magazines and other storage facilities for munitions were also constructed at Chopawamsic RDA.

The former facility included two small arms ranges, four demolition ranges, a mortar range, and a multi-use assault range (Figure 2.1). Of the eight areas, OE was observed in two. At the five target, 50 yard pistol range several expended .45 caliber rounds were found embedded in each of the target posts. This range was also used for carbine and sub-machine gun firing.

The multi-use assault range is the site of a 1993 recovery of a 2.36 inch rocket. The site inspection revealed two concrete targets (one with a 20mm gun barrel). Additionally, a portion of a 2.36 inch rocket was found. This site is located in what is believed to be a cemetery. No indications of OE was found in either of the other areas inspected.

During the site inspection, the presence of .50 cal rounds were noted at the former small arms range "G". More significantly was the location of an item identified as originating from a 2.36 inch rocket. This item was located at Range B, adjacent to, and within fifty feet of a family cemetery. A previously recovered 2.36 inch rocket was found in the cemetery.

6. **CURRENT STATUS:** The ASR was completed by St. Louis District in March 1995 assigning a RAC score of 3.

7. STRATEGY: EE/CA

8. ISSUES AND CONCERNS: The ASR and the Fact Sheet did not break this site down into different areas except for showing nine areas on Figure 2.1. The historical review indicates 10 target ranges and three demolition areas while a restoration survey conducted in 1945 indicate additional ranges/demolition areas. The ASR states that during WW II, parts of the park were utilized for military training purposes and from 1942 to 1945 the site was closed and was used by the OSS for training. It cannot be determined if this meant that only the OSS used the park during WW II or other military training was conducted simultaneously using other parts of the park. The ASR also states that as early as 1938, military maneuvers had been conducted in the park by forces from Quantico Marine Base and Fort Belvoir, and by 1942 the practice of military maneuvers had become commonplace (no record as to which areas or munitions were used). It is very possible, if not probable, that other areas of this site were utilized for training purposes other than those shown and listed. The TAG considered the whole 11,011.23 acres of this site as potentially having OE presence. The Risk Assessment Code worksheet has been revised to a RAC score of 1.

9. SCHEDULE SUMMARY:

	Original	Schedule	Actual	Original	Schedule	Actual
Phase	Start	Start	Start	Comp	Comp	Comp
EE/CA						

10. FUNDING/BUDGET SUMMARY:

		Exec	In-House	Contract	Funds
Year	Phase	FOA	Required	Required	Obligated

ED-ES provides estimate of EE/CA based on number of samples, size of area, plan of action, etc. This is a programming estimate to be used for programming project start in appropriate FY.

17 March 1995

Previous editions obsolete

APPENDIX B **RISK ASSESSMENT PROCEDURES FOR** **ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES**

Site Name <u>Chapawamsic Troop Training Site</u>	Rater's Name <u>Greg Bayuga</u>
Site Location <u>Prince William County, VA</u>	Phone No. <u>(703) 589-5596</u>
DERP Project # <u>CO3VAC19402</u>	Organization <u>CEHND - OE - DG</u>
Date Completed <u>4 Oct 96</u>	Score <u>1</u>

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential EXO hazards identified at the site. The risk assessment is composed of two factors, **hazard severity** and **hazard probability**. Personnel involved in visits to potential OEW sites should view the CEHND videotape entitled "A Life Threatening Encounter: OEW."

Part I. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPE OF ORDNANCE

(Circle all values that apply)

A.	Conventional Ordnance and Ammunition	VALUE
	Medium/Large Caliber (20 mm and larger)	<u>10</u>
	Bombs, Explosive	10
	Grenades, Hand and Rifle, Explosive	<u>10</u>
	Landmines, Explosive	10
	Rockets, Guided Missiles, Explosive	<u>10</u>
	Detonators, Blasting Caps, Fuzes, Boosters, Bursterns	<u>6</u>
	Bombs, Practice (w/spotting charges)	6
	Grenades, Practice (w/spotting charges)	4
	Landmines, Practice (w/spotting charges)	4
	Small Arms, Complete Round (.22 cal - .50 cal)	1
	Small Arms, Expended	0
	Conventional Ordnance and Ammunition (Select the largest single value)	<u>10</u>

What evidence do you have regarding conventional EXO Sites past use, EOD reports
into in ASR

B.	Pyrotechnics (For munitions not described above.)	VALUE
	Munition (Container) 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 <u>(Select the largest single value)</u>	6
	What evidence do you have regarding pyrotechnics? <u>Info from ASR</u>	
<hr/>		
C.	Bulk High Explosives (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 <u>(Select the largest single value)</u>	10
	What evidence do you have regarding bulk explosives? <u>Demo charges used</u> <u>for training OSS personnel</u>	
D.	Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)	VALUE
	Solid or Liquid Propellants	6
	Propellants	0
	What evidence do you have regarding bulk explosive <u>None</u>	
<hr/>		

E. Chemical Warfare Materiel 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 largest single value)	<u>0</u>
What evidence do you have of chemical/radiological OEW?	<u>None</u>

TOTAL HAZARD SEVERITY VALUE

(Sum of Largest Values for A through E—Maximum of 61)
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1
HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

* APPLY HAZARD SEVERITY CATEGORY TO TABLE 3.

**If HAZARD SEVERITY VALUE IS 0, YOU DO NOT NEED TO COMPLETE PART II. 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 a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD
(CIRCLE ALL VALUES THAT APPLY)

A. Locations of OEW Hazards

On the surface

VALUE

(5)

Within Tanks, Pipes, Vessels
or Other confined locations.

4

Inside walls, ceilings, or other
parts of Buildings or Structures.

3

Subsurface

(2)

Location (Select the single largest value)

5

What evidence do you have regarding location of OEW? Mortar & Rocket

found on surface

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazards (roads, parks, playgrounds, and buildings).

VALUE

Less than 1250 feet

(5)

1250 feet to 0.5 miles

4

0.5 miles 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? Camp grounds, County road,

Park Cabins

C. Numbers of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
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 <u>Trailer Park + Park cabins</u>	

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 largest single value)	5
Describe types of buildings in the area. <u>Park buildings</u>	

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or 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) which continuously monitors and controls entry onto the facility; or An artificial or natural barrier (e.g., a fence combined with a cliff, which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility).	0
Accessibility (Select the single largest value)	5
Describe the site accessibility. <u>A public Park.</u>	

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

	VALUE
Expected	5
None Anticipated	0
Site Dynamics (Select largest value)	0
Describe the site dynamic <u>None</u>	

TOTAL HAZARD PROBABILITY VALUE

(Sum of Largest Values for A through F--Maximum of 30)
Apply this value to Hazard Probability Table 2 to determine
Hazard Probability Level.

25

TABLE 2
HAZARD PROBABILITY

<u>Description</u>	<u>Level</u>	<u>Hazard Probability Value</u>
FREQUENT	A	27 or greater
PROBABLE	<u>B</u>	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 3. Enter with the results of the hazard probability and hazard severity values.

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
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1

Expedite INPR, recommending further action by CEHND - Immediately call CEHND-OE-ES - Commercial 205-895-1582

RAC 2

High priority on completion of INPR - Recommend further action by CEHND.

RAC 3

Complete INPR - Recommend further action by CEHND.

RAC 4

Complete INPR - Recommend further action by CEHND.

RAC 5

Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

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.

Information gleaned from the ASR indicates a RAC 1 with a Time Critical Removal Action appropriate.

U. S. ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE				C03VA019402	CORPS OF ENGINEERS	
DESIGN REVIEW COMMENTS				PROJECT CHOPAWAMSIK TROOP TRAINING SITE		
<input type="checkbox"/> SITE DEV <input type="checkbox"/> ENVIR PROT&UTL <input type="checkbox"/> ARCHITECTURAL <input type="checkbox"/> STRUCTURAL		<input type="checkbox"/> MECHANICAL <input type="checkbox"/> MFG TECHNOLOGY <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> INST & CONTROLS		<input type="checkbox"/> SAFETY <input type="checkbox"/> ADV TECH <input type="checkbox"/> ESTIMATING <input type="checkbox"/> SPECIFICATIONS		<input type="checkbox"/> SYSTEMS ENG <input type="checkbox"/> VALUE ENG <input checked="" type="checkbox"/> OE-AI
				REVIEW	ASR	OE
				DATE	8 July 1996	TYPE
				NAME	Richard L. Pike, OASAS (5-1559) <i>RP</i>	

ITEM	DRAWING NO. OR REFERENCE	COMMENT	ACTION
1.	RAC Part IA	Mortars, Rockets, SAA, (and possibly Practice Grenades) are not addressed.	1. Concur. The attached updated TAG RAC, dated 4 October 1996, lists the munitions.
2.	RAC Part IC	Demolition Charges not addressed (though highly unlikely any would remain).	2. Concur. The attached updated TAG RAC, dated 4 October 1996, lists the demolition charges.
3.	RAC Part IIB	How about County Road 626? It appears to be less than 1,250 ft from Area B.	3. Concur. The attached updated TAG RAC, dated 4 October 1996, lists the county road.
4.	RAC Part IIC	How many park cabins are still being used, and how often? How about the Trailer Park? Could they be considered inhabited buildings?	4. At the time of re-finalization, information concerning the park cabins and trailer park is not known.
5.	RAC Part IIF Para 3.4.5, Page 3-2	ASR Findings state new development in county area includes residential dwellings, etc. How close are these new dwellings, etc., going to be from the site?	5. Currently, new development is occurring along Interstate 95 and also along Dumfries Road.
6.	ASR Figure 2.1, Area B	Conclusions and Recommendations: "Rifle, machine gun, mortar and rocket firing. Mortar and rocket duds in danger space." This is not mentioned in the text of the ASR.	6. Concur. The listed information was obtained from a "Training Map", which is now included in APPENDIX H. Per the DISCLAIMER placed before the Table of Contents, the C&R volume is not available for public release; the corrections to the C&R volume will not be completed (NOTE: FIGURE 2.1 in C&R is same as FIGURE 7.1 in this volume of report).
7.	ASR Figure 2.1, Area I	Conclusions and Recommendations: "Abandon mortar range. Covered with duds." Not mentioned in text of ASR.	7. See Item 6 above, "Action" column.
8.	ASR Page 2-3, 3d para	Conclusions and Recommendations: "As early as 1938, military maneuvers had been conducted in the park by forces from Quantico Marine Base and Fort Belvoir. By 1942 the practice of military maneuvers had become commonplace. During World War II, parts of the park were utilized for military training purposes..." What type of military maneuvers/training was conducted? What munitions, if any? Nothing else is said about it.	8. After reviewing historical documents obtained from Archives, the exact type of military maneuvers/training is not listed.

ACTION CODES: W - WITHDRAWN
 A - ACCEPTED/CONCUR N - NON-CONCUR
 D - ACTION DEFERRED VE - VE POTENTIAL/VEP ATTACHED

U. S. ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE				C03VA019402	CORPS OF ENGINEERS	
DESIGN REVIEW COMMENTS				PROJECT CHOPAWAMSIK TROOP TRAINING SITE		
<input type="checkbox"/> SITE DEV <input type="checkbox"/> ENVIR PROT&UTIL <input type="checkbox"/> ARCHITECTURAL <input type="checkbox"/> STRUCTURAL		<input type="checkbox"/> MECHANICAL <input type="checkbox"/> MFG TECHNOLOGY <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> INST & CONTROLS		<input type="checkbox"/> SAFETY <input type="checkbox"/> ADV TECH <input type="checkbox"/> ESTIMATING <input type="checkbox"/> SPECIFICATIONS		<input type="checkbox"/> SYSTEMS ENG <input type="checkbox"/> VALUE ENG <input checked="" type="checkbox"/> OEAI
				REVIEW	ASR	OE
				DATE	8 July 1996	TYPE
				NAME	Richard L. Pike, QASAS (5-1559) <i>RM</i>	

ITEM	DRAWING NO. OR REFERENCE	COMMENT	ACTION
9.	ASR Page 6-1, 5th para	Findings: It states that both basic and advanced training were conducted in Areas A and C. What about the Multi-use Assault Range (Area B)?	9. Area B-Multi-use Assault Range was not listed in the historical document concerning the basic and advanced training use.
10.	ASR Appendix C-3	Findings: Does not include mentioned letter, dated 13 January 1946, that is described on page 6-2, 3d paragraph.	
11.	ASR Appendix E	No interview sheets.	10. Concur. Letter dated 13 January 1946 has been added to APPENDIX C-3.
12.	ASR Appendix G, Photo #1	Findings: This shows parts of three 2.36" rockets previously found. Photo #6 shows another part. The 2.36" rocket found in 1993 was blown in place. No mention of additional 2.36" rockets found in ASR text.	11. Concur. Interview sheets have been added to APPENDIX E.
13.	ASR Appendix G	Findings: Photo numbers are incorrect on pages G-1 and G-2 (Photos #2 and #3.)	12. Section 7.0, 4th paragraph, lists the 2.26" rocket found during site inspection, shown in APPENDIX G, Photo No. 6. As of the date of re-finalization, the exact location(s) and correct number of found 2.36" rockets are not known.
14.	ASR Appendix G, Page 6-2	Findings: Photo #1 (#3) states that expended <u>.50 caliber</u> rounds were found embedded in posts on Range G. Figure 7.1 identifies Range G as for pistol, carbine and sub-machine gun. Paragraph 6-5, 4th paragraph, states, "At the five target, 50 yard pistol range several expended <u>.45 caliber</u> rounds were found embedded in each of the target posts. This range was also used for carbine and sub-machine gun firing."	13. Concur. Photo numbers have been corrected. 14. Concur. Verbiage in APPENDIX G has been corrected to ".45 caliber".

Theresa Williams / CEMVS-EC-P / 314.331.8898.
Dennis Gilmore / CEMVS-EC-P / 314.331.8108.

From: CEHNC-OE-AI (Pike)
Thru: CEHNC-ED-SY (Mardis)
To: CELMS-PM-M (Gilmore)
Date: 4 October 1996
Subject: ASR-Chopawamsic Troop Training Site C03VA019202

Reference CELMS-PM-M Fax, dtd 12 August 1996, SAB. The following comments to response are provided:

- Item 1: Non-concur. These items are listed in the ASR as having been used on this site. There is still the potential for OE presence regardless of any subsequent range clearances. We have found from experience that former OE clearances were surface only and are not always reliable. On Page 6-3, Findings, you state that the park was supposedly cleared of UXO, however, as recently as 1993, the 57th EOD at Fort Belvoir, VA reported an incident involving a bazooka round. We have confirmed ordnance presence long after OE clearance. The RAC worksheet should address Medium/Large Caliber, Explosive Rockets, Detonators, Blasting Caps, and Demolition Charges.**
- Item 2: See Item 1.**
- Item 3: County Road 626 is within 1,250 feet of Area B. The RAC worksheet, Part IIB, should have a score of 5.**
- Item 4: Considering the cabins as inhabited, the RAC worksheet, Part IIC, should have a score of 5.**
- Item 5: Concur. Attached is a revised RAC worksheet reflecting a score of 1 for this site.**
- Item 6: Non-concur. Regardless of whether these OE were present prior to or after the clearance in 1946, there is potential for subsurface OE presence and should be addressed in the ASR text.**
- Item 7: See Item 6.**
- Item 8: Concur. The possible use and disposal of OE of all types and calibers should be considered as common practice during WW II training/ maneuver activities**
- Item 9: Concur. My original question should have read, "Did not the OSS staff also run training in Area B (Multi-use Assault Range)?" If they did, then Range B should be added to this first sentence. It is not that important, Range B is covered elsewhere in the ASR.**
- Item 10: Non-concur. You need to either include it or omit the mention of it on the yellow page of Appendix C-3.**

Date: 4 October 1996

Subject: ASR-Chopawamsic Troop Training Site C03VA019402

Item 11:Non-concur. You need to include the interview sheets so we know what was said by the individuals interviewed. It does no good to just mention that they were interviewed. Nowhere in the ASR text does it state what an interviewed individual said.

Item 12:Non-concur. You say the Findings did not indicate additional rockets but you visually show additional rockets. You provide two photographs showing four 2.36" rockets/rocket parts. In the text you only account for the portion, shown in Photo #6, and the 1993 find that was blown in place by EOD (not pictured)(Findings, Page 6-8, Paragraph 6.5 and Page 7-1, Paragraph 7.0. C&R, Page 2-6, Paragraph 2.6 and 2.7). You also mentioned that a previously recovered 2.36" rocket was found in the cemetery"(C&R, Page 2-6, Paragraph 2.7), but I can't tell if this is the one found in 1993 or not. Even if this one is not, it accounts for only two. Where did the other two come from? Photo #1 states only that they were previously found, found where?

Item 13:Concur.

Item 14:Concur.

APPENDIX J
REPORT DISTRIBUTION LIST

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
for the former
CHOPAWAMSIC TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401**

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CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT**
for the former
CHOPAWAMSIC TROOP TRAINING SITE
Prince William County, Virginia
Project Number C03VA019401

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Archives - Judicial Circuit Court
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Manassas, VA 22110

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