

**US Army Corps
of Engineers**
Huntsville Division

Fact Sheet

Ordnance Study in W.Va. at Dolly Sods Wilderness Area

In July 1991, the U.S. Army Corps of Engineers will begin a remedial investigation / feasibility study of possible ordnance contamination at the Dolly Sods Wilderness Area, site of the former West Virginia Maneuver Area. During the project, the Corps' contractor, Metcalf & Eddy, (and subcontractor UXB International, Inc.) will study the site and search for possible munitions buried in the area.

Safety is our paramount concern. Work areas will be closed to the public during operations. Workers are highly skilled in their field and receive daily safety briefings. The Corps of Engineers has reviewed all of the contractor's work plans and safety plans to ensure the work is accomplished in a thorough and safe manner. In addition, Corps ordnance experts will perform periodic quality checks. Because of the nature of the work, those not involved in the process will not be permitted near the actual work.

Background

Dolly Sods is located in Grant, Tucker and Randolph Counties, W. Va. The Forest Service operates the wilderness area, which contains 10,215 acres and is open to the public at all times. The area was used for maneuvers during World War II by the Department of the Army. This site was selected for study based on the findings of the Huntington District Army Corps of Engineers, that ordnance may still remain in the wilderness area.

During World War II, about 2 million acres in the vicinity of Dolly Sods were used by the Thirteenth Army Corps of the Third Army for mountain training maneuvers, including the firing of artillery and mortars. This training continued from Oct. 15, 1943

to July 1, 1944, with several divisions taking part in training before shipping out. Records on all of the military operations in the area are scarce, but it is known that the targets of the artillery fire near the Dolly Sods Wilderness Area included the southern face of Blackbird Knob to the north and the eastern face of Cabin Mountain at the northwest corner. In addition, mortar fire took place in the area.

Defense Environmental Restoration

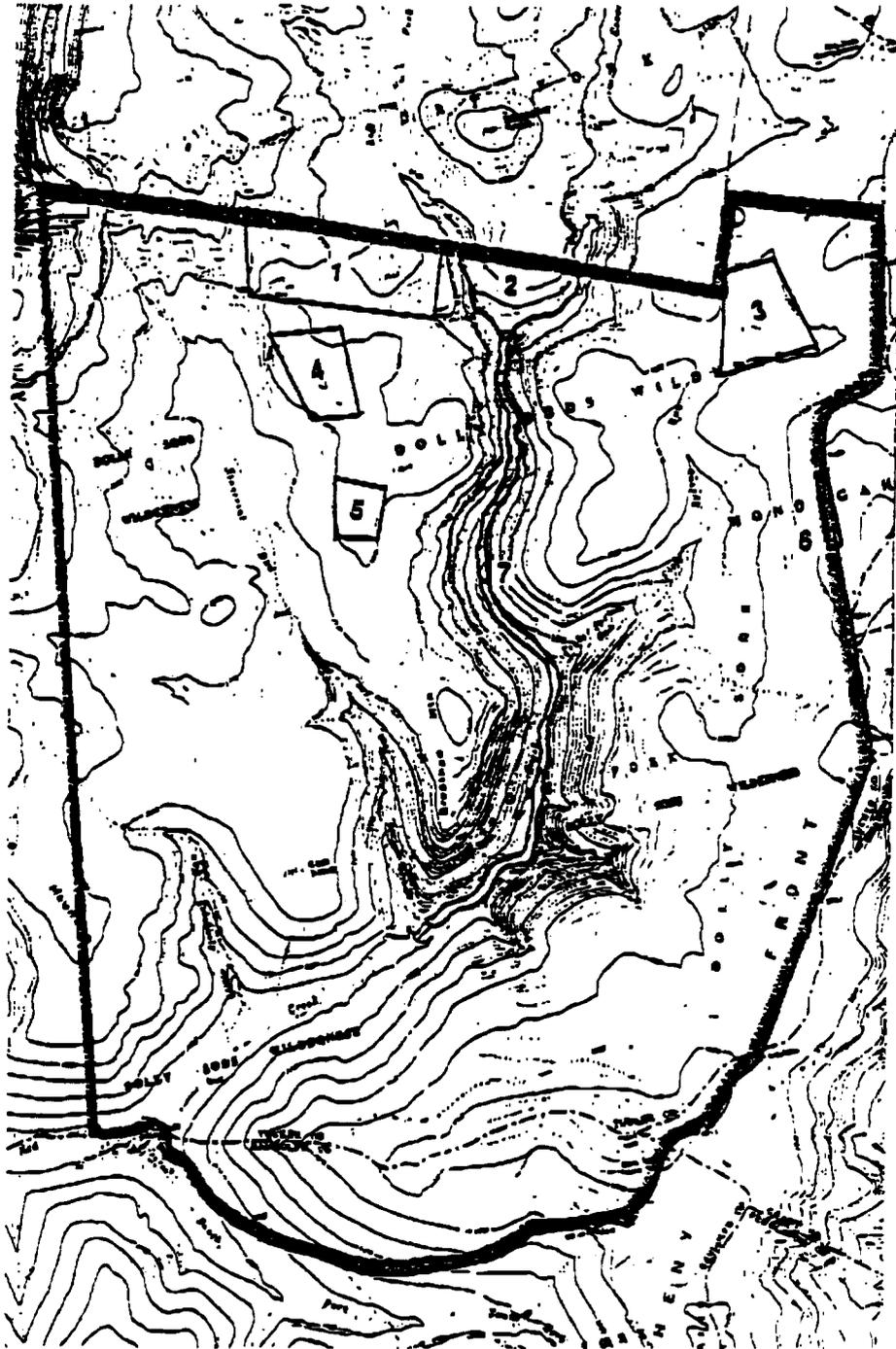
In 1986, Congress established the Defense Environmental Restoration Program -- or DERP -- under Public Laws 99-190 and 99-499. Under that Program are two subprograms, the Installation Restoration Program (which deal with present sites) and the Formerly Used Defense Sites program. Under DERP, the Defense Department's goal is to remediate environmental problems on present and formerly owned or used sites. The Formerly Used Defense Site program has three major activities:

- Remove hazardous and toxic waste;
- Demolish and remove old buildings and debris;
- Remove ordnance and explosive waste.

Huntsville Division, Army Corps of Engineers, is responsible for the last of those three activities. In Huntsville, a team of engineers and other specialists study sites throughout the country to determine whether ordnance contamination exists. In coordination with local Corps of Engineers Districts, public officials and interested citizens, the Division examines possible contamination, determines its potential danger, develops a plan to remediate the ordnance problem, and oversees the execution of that plan.



Former W.Va. Maneuver Area



Ordnance Search Areas



**US Army Corps
of Engineers**

Fact Sheet



Mandatory Center of Expertise and Design Center for Ordnance and Explosives

On April 5, 1990, the U.S. Army Corps of Engineers designated Huntsville Center the Mandatory Center of Expertise (MCX) for Ordnance and Explosives (OE) for the entire Corps.

In 1986, Congress established the Defense Environmental Restoration Program (DERP) under Public Laws 99-190 and 99-499. Under the program are two subprograms, the Installation Restoration Program--which deals with active sites--and the Formerly Used Defense Sites Program. Under DERP, the Defense Department's goal is to remediate environmental problems on present and formerly owned or used sites.

The Formerly used Defense Sites Program has three major activities:

- Remove and dispose of hazardous and toxic waste;
- Demolish and remove old buildings and debris;
- Remove ordnance and explosive waste.

Huntsville Center is responsible for this third activity. A team of engineers and other specialists from Huntsville studies sites throughout the country to determine whether ordnance contamination exists. In cooperation with local Corps of En-

gineers Districts, public officials, and interested citizens, the Center examines possible contamination, determines its potential danger, develops a plan to remove the ordnance, and oversees the execution of that plan. The local geographic District serves as the project manager for the investigation and clean-up and has public affairs responsibility.

Headquarters, U.S. Army Corps of Engineers in Washington, D.C., oversees the entire program and provides approval and funding.

Huntsville Center's primary goal is to render a site as safe as possible with a minimum of risk to all. The Center has rigid safety standards and uses contractor personnel highly qualified in unexploded ordnance removal. Corps of Engineers personnel who oversee the work also have extensive experience in OE removal.

The Corps executes site clean-up in phases.

An Archives Search consists of interviews with local residents and former employees of the former Defense activity, searches through old records and historical documents, and a visit to the site. If the archives search confirms an ordnance prob-

lem, the Corps proceeds to the next phase, the site investigation (SI).

During this phase, the Corps conducts surface sweeps in suspect areas to try to visibly detect ordnance. Then magnetometers (metal detectors) are used to see what ordnance might be buried under the surface.

Confirmation of an ordnance hazard during the SI may lead to time-critical removals where necessary to get rid of immediate safety hazards. For non-emergency removals of ordnance, the Corps prepares an Engineering Evaluation/Cost Analysis (EE/CA). The EE/CA further defines the hazard by establishing the area, depth, and density of ordnance contamination. The EE/CA is prepared and reviewed in accordance with the National Contingency Plan of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), better known as Superfund.

The Corps explores different ways for addressing ordnance hazards and selects the best approach after reviews by the appropriate environmental agencies, owners, and the public.

Once the decision has been made on the method of disposal, the ac-

Produced by the Huntsville Center Public Affairs Office
P.O. Box 1600, Huntsville, AL 35807-4301
Telephone: (205) 895-1691 Fax: (205) 895-1689

...tual removal design and removal action phases begin. All of the phases are in accordance with environmental laws which require a coordinated, organized approach to remedial actions; and public notification at critical milestones during the process.

Related Information

Ordnance and explosives are defined as:

-- Unexploded ordnance, bombs, artillery projectiles, rockets and other munitions;
-- Military chemicals, bulk explosives, chemical warfare agents, pyrotechnics;
-- Explosive waste, boosters, fuzes, soil contaminated with any of the above.

If there is enough explosive material present in the soil to make it an explosive safety hazard, the soil is treated as explosive waste. If concentrates are not that high, the soil

will be dealt with under hazardous, toxic, and radioactive waste (HTRW) procedures--recognizing unique safety considerations. Surface water and ground water contaminated with explosives will be evaluated following HTRW procedures. Any time pieces of explosive waste are present, the safety hazard is the first concern.

FORMERLY USED DEFENSE SITES (FUDS)
PROJECT FACT SHEET
10 April 1995

CECILIANE FOLK
WALLY DEAN
CAUCK NORDLING
FILE
RICK MEADOWS
WAYNE BUDRUS

1. SITE NAME: Former West Virginia Maneuver Area (Dolly Sods Wilderness Area).

SITE NUMBER: G03WV001304

LOCATION:

City: Petersburg
County: Grant, Tucker & Randolph
State: West Virginia

PROJECT NUMBER: G03WV001304

CATEGORY: OEW - FUDS

2. POC'S:

TECHNICAL MANAGER:

Name: LYNN FROW
Office: CEHND
Phone: (205) 955-1546

DISTRICT PROJECT MANAGER

Name: WAYNE BUDRUS
Office: CEOHR
Phone: 304-529-5507

DIVISION POC:

Name: WAYNE MELLO
Office: CEORD
Phone: 513-684-6249

HEADQUARTERS POC:

Name: JIM COPPOLA
Office: CEMP
Phone: (202) 504-4992

3. SITE DESCRIPTION: The Dolly Sods Wilderness Area contains 10,215 acres in the Monongahela National Forest located in Grant, Tucker and Randolph Counties, between Elkins and Petersburg West Virginia. It is open to the public at all times. It contains Sods (bogs) located mostly in the northern portion. These areas are marshy and contain different types of vegetation than the surrounding forest. It is quite rocky and rugged. There are no roads in the wilderness area. It is bordered on the East, South and North by Forest Service lands and private land to the West.

4. SITE HISTORY: Prior to logging operations in the late 1800's Dolly Sods was covered by forest. After logging the humus layer was destroyed by fire. The plains area was burned to create grazing which continued until the 1980's. The Forest Service bought the land when logging operations ended (1910-13). Military maneuvering and training was performed in the Dolly Sods Area (former West Virginia Maneuver Area) during WWII from 1943 to 1944. The land was returned to the Forest Service in 1950. Dolly Sods Wilderness was created by Congress in 1975.

5. WWII Operations: From 15 October 1943 to 1 July 1944 2,181,000 acres in the vicinity of Dolly Sods were used for mountain training and maneuvers including firing of artillery and mortars. Records on all military operations are scarce (lost or destroyed). Acquisition of these lands have no legal description. A warning order on 19 March 1945 declared the entire area surplus. A subsequent warning order withdrew the entire facility from surplus. April 21 1945 letter from Office for Emergency Management, Office of Scientific Research and Development requested OCE issue a permit to test fire rockets and projectiles. The permit apparently was issued and expired by due process. 10 August 1950 the lands were relinquished back to Department of Agriculture. The project site is owned today by private industry and the U.S. Forest Service.

It is known that targets for artillery fire near included the southern face of Blackbird Knob and the eastern face (northwest corner) of Cabin Mountain. It is believed there were three groups of gun emplacements, although no exact known location. Mortar fire also took place in the area. Targets unknown. Supposition would be open, high ground was targeted to lessen the possibility of fires started by the explosion and to make the impact more visible. They were probably fired from a multitude of locations around Dolly Sods.

6. CURRENT STATUS: Preliminary survey for aerial mapping was conducted during the week of 3 April 1995. Actual flyover is scheduled to begin the first of May. Meeting with Huntsville, Huntington, and Forest Service was held 3 & 4 April 1995. Issues discussed were the flyover, environmental assessment (EA), access to Blackbird Knob for EE/CA and schedule changes for the Wilderness and Blackbird Knob. Huntington and the Forest Service felt the proposed work plan did not adequately address the NEPA requirements for West Virginia and were adamant that the state would require an EA further into the project. A scoping letter was prepared and the schedule readjusted to include the EA process. CEHND (Sam Sang, Roland Belew Stan Lee) agreed that we normally did not do that, provisions concerning EA were addressed in the DERP-FUDS manual Page 1-17, Dec 1993 and AR 200-2 Environmental Effects of Army Actions. By doing the EA we feel we are setting a precedent that is covered in present regulations and guidelines. There may be a possible delay in awarding the EE/CA for Blackbird Knob due to the absence of an Archive Search Report (ASR). Presently, we are weighing the pros and cons. We want to assure the project is accomplished as efficiently as possible and this may mean holding up work until an ASR is completed. Rock Island said they can fit it in fourth quarter workload. This would be an approximate 3-5 month delay. The aerial photography would be available at that time and would certainly be an asset to the contractor.

9. SCHEDULE SUMMARY: A. Dolly Sods Wilderness Area B. Dolly Sods North BlackBird Knob Area

	Actual Phase Complete	Stat	Original Start	Schedule Start	Actual Start	Original Complete	Schedule Complete
A.	EE/RA	EE	MAY 91	8/17/95			
B.	EE/CA			5/26/96			

10. FUNDING/BUDGET SUMMARY:

	Year Obligated	EXEC Phase	FOA	In-House Required	Contract Required	Funded
A.	FY95	RA				80,000
B.	FY95	EE/CA				70,000

1. GENERAL/MISC:

ADDRESSES:

- a. Commander, US Army Engineering District,
Huntington, ATTN: CEORD-DL-M (WAYNE BUDRUS),
502 8th Street, Huntington, WV 25701-2070
- b. Commander, US Army Engineering Division,
Ohio River, ATTN: CEORD-DL-MS (Wayne Mello),
P.O. Box 1159, Cincinnati, OH 45201-1159

Express Address: 550 Main Street
(513) 684-6249
- c. Nancy R.F. Feakes, District Ranger, Potomac Ranger
District, HC 59, Box 240, Petersburg, WV 26847
(304-257-4488)

Removal Schedule for Dolly Sods Wilderness Area West Virginia

ID	Task Name	Duration	Start	Finish	Quarter 1			Quarter 2			Quarter 3			Quarter 4	
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	Dolly Sods Kickoff Meeting	1d	10/25/94	10/25/94	█										
2	Develop Plans	5.7w	10/26/94	12/5/94	█	█									
3	Site Visit	2d	12/5/94	12/7/94			█								
4	Risk Analysis Quantitech	5.4w	12/7/94	1/13/95			█								
5	Develop Proposed Plan	8.8w	1/13/95	3/16/95				█	█						
6	Mail to Forest Service	1d	3/17/95	3/17/95											
7	Review by FS and COE	10d	3/20/95	3/31/95											
8	Government Meeting	2d	4/3/95	4/4/95											
9	SOW to Safety	27d	4/5/95	5/11/95											
10	Cost Estimate	5d	5/12/95	5/18/95											
11	IGE	3.1w	5/19/95	6/9/95											
12	Incorporate cmts of Gov Mtg	16d	6/9/95	7/3/95											
13	Draft Action Memo/Plan	5d	7/3/95	7/10/95											
14	Public Review	26d	7/10/95	8/15/95											
15															
16	Huntington Tasks	94d	4/6/95	8/16/96											
17	Scoping Letter	2d	4/6/95	4/7/95											
18	Rec comments Scoping Ltr	15d	4/10/95	4/28/95											
19	Environ Assess (EA) prep	33d	5/1/95	6/14/95											
20	Obtain Rights of Entry	33d	5/1/95	6/14/95											
21	In House Review (COE & FS)	6d	6/15/95	6/22/95											
22	Revise Draft EA	5d	6/23/95	6/29/95											
23	Public Review	21d	6/30/95	7/30/95											

Removal Schedule for Dolly Sods Wilderness Area West Virginia

ID	Task Name	Duration	Start	Finish	Quarter 1			Quarter 2			Quarter 3			Quarter 4	
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
24	Planning Review Board (PRB)	21d	6/30/95	7/30/95											
25	QA	21d	6/30/95	7/30/95											
26	Include Comments	8d	7/31/95	8/9/95											
27	Process FONSI	4d	8/10/95	8/15/95											
28															
29	FONSI Action Memorandum	0d	8/17/95	8/17/95											
30	Issue Removal Contract	2d	8/18/95	8/21/95											
31	Notify Public of FONSI & decision	2d	8/8/95	8/9/95											

Fact Sheet

Ordnance Removal Action Dolly Sods Wilderness Area, West Virginia

In August 1996, the U.S. Army Corps of Engineers will perform a Removal Action for ordnance that was discovered in the Dolly Sods Wilderness Area during an investigation in 1991. Ordnance found included 4.2", 81mm, and 60mm mortar rounds, and a 57mm projectile. During this removal action project, the Corps' contractor, Human Factors Applications, Inc., will detonate ordnance and remove the scrap along hiking trails and within camping areas.

Approximately 21 miles of recorded hiking trails will be cleared to a depth of one foot and 20 feet on each side. There are 101 recorded camping areas that will be cleared to a depth of 4 feet.

Safety is the Corps' greatest concern. Work areas will be closed to the public during the removal action. The contractors are highly skilled in their field and receive daily safety briefings. Their work and safety plans have been reviewed by the Corps to assure that the project is accomplished thoroughly and safely. Corps ordnance experts also perform periodic quality checks of the contractors work.

Background

Dolly Sods is located in Grant, Tucker and Randolph Counties, WV. The U.S. Forest Service operates the wilderness area, which contains 10,215 acres and is open to the public at all times. The area was used for military maneuvers during World War II by the Department of the Army. The site was selected for study based on the findings by the Huntington District Corps of Engineers that ordnance remained at the site due to the former use by the Army.

During WWII, about 2 million acres in the vicinity of Dolly Sods were used by the Thirteenth Army Corps of the Third Army for mountain training and maneuvers, including firing of artillery and mortars. This training continued from Oct. 15, 1943 to July 1, 1944. Records on all of the military operations are scarce, but it is known that the artillery fire targets near the Dolly Sods Wilderness Area included the southern face of Blackbird Knob and the eastern face of Cabin Mountain.

Defense Environmental Restoration

In 1986, Congress established the Defense Environmental Restoration program (DERP) under Public Laws 99-190 and 99-499. Under that program, there are two subprograms, the Installation Restoration Program (IRP), for active military sites, and the Formerly Used Defense Sites Program (FUDS), for sites formerly used by the Department of Defense. The FUDS program has three major activities:

- Remove hazardous and toxic waste;
- Demolish and remove unsafe buildings and debris;
- Remove ordnance and explosive waste.

The Huntsville Ordnance and Explosives Center, Army Corps of Engineers, is responsible for ordnance activities. The Huntsville team of engineers and other specialists study sites throughout the country to determine whether ordnance contamination exists. In cooperation with the local Corps District, public officials and interested citizens, the Center determines possible contamination, develops hazard remediation plans, and oversees project execution.

Fact Sheet

Ordnance Removal Action in WV at Dolly Sods Wilderness Area

In August 1996, the U.S. Army Corps of Engineers will perform an ordnance Removal Action in the Dolly Sods Wilderness Area. This contamination was discovered during an investigation in 1991. Ordnance found included 4.2", 81mm, and 60mm mortar rounds, and a 57mm projectile. There are also reports that 105mm and 155mm projectiles have been found. During this removal action project, the Corps' contractor, Human Factors Applications, Inc., will detonate ordnance and remove the scrap along hiking trails and within camping areas.

An estimated 20.8 miles of recorded hiking trails will be cleared to a depth of one foot and 20 feet on each side. This action will cover approximately 112 acres. There are 101 recorded camping areas that will be cleared to a depth of 4 feet. This action will cover approximately 2 acres. The risk of ordnance exposure will be reduced 47.6% on the trails and 58.9% in the camping areas.

Safety is the Corps' greatest concern. Work areas will be closed to the public during the removal action. The contractors are highly skilled in their field and receive daily safety briefings. The contractors work and safety plans have been reviewed by the Corps to assure that the project is accomplished thoroughly and safely. Corps ordnance experts also perform periodic quality checks of the contractors work.

Background

Dolly Sods is located in Grant, Tucker and Randolph Counties, WV. The U.S. Forest Service operates the wilderness area, which contains 10,215 acres and is open to the public at all times. The area was used for military maneuvers during World War II by the Department of the Army. The site was selected for study based on the findings by the Huntington District Corps of Engineers that ordnance still remained at the site due to the former use by the Department of the Army.

During WWII, about 2 million acres in the vicinity of Dolly Sods were used by the Thirteenth Army Corps of the Third

Army for mountain training and maneuvers, including firing of artillery and mortars. This training continued from Oct. 15, 1943 to July 1, 1944. Records on all of the military operations in the area are scarce, but it is known that the targets of the artillery fire near the Dolly Sods Wilderness Area included the southern face of Blackbird Knob to the north and the eastern face of Cabin Mountain at the northwest corner.

Defense Environmental Restoration In 1986, Congress established the Defense Environmental Restoration program (DERP) under Public Laws 99-190 and 99-499. Under that program, there are two subprograms, the Installation Restoration Program (IRP), for active military sites, and the Formerly Used Defense Sites Program (FUDS), for sites formerly owned, leased or used by the Department of Defense. The FUDS program has three major activities:

- Remove hazardous and toxic waste;
- Demolish and remove unsafe buildings and debris;
- Remove ordnance and explosive waste.

The Huntsville Division, Army Corps of Engineers, is responsible for ordnance activities. The Huntsville team of engineers and other specialists study sites throughout the country to determine whether ordnance contamination exists. In cooperation with the local Corps District, public officials and interested citizens, the Center determines possible contamination, develops plans to remediate the hazard, and oversees execution of the plan.