

**FINAL
OPERATIONAL RANGE ASSESSMENT PROGRAM
PHASE I QUALITATIVE ASSESSMENT REPORT
BIAK TRAINING CENTER
POWELL BUTTE, OREGON**

MARCH 2008

Prepared for:

UNITED STATES ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT
P.O. Box 1715
Baltimore, Maryland 21203

and

UNITED STATES ARMY ENVIRONMENTAL COMMAND
Aberdeen Proving Ground, Maryland 21010

Prepared by:

MALCOLM PIRNIE, INC.
2000 Powell Street
Suite 1180
Emeryville, California 94608



EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program. This Phase I Assessment evaluates the operational range area at Biak Training Center to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

Biak Training Center occupies approximately 28,065 acres in Deschutes and Crook counties, Oregon. The installation is located on federal public lands approximately three miles east-southeast of the city of Redmond and 14 miles northeast of the city of Bend. The primary military mission at Biak Training Center is to provide training facilities and maneuver areas necessary for cavalry, engineer, anti-armor, and infantry training for 100 to 600 troops at a time.

An Operational Range Inventory Sustainment update was submitted to the U.S. Army Environmental Command for the Army Range Inventory Geodatabase in October 2005 (ARID-GEO [2005]). ARID-GEO (2005) identified 15 operational range areas encompassing a total of 27,960.4 acres at Biak Training Center. A total of 105 acres was identified as other than operational acreage. Two types of training activities are conducted at Biak Training Center: live-fire small arms training and light maneuver exercises. The site is used primarily during weekends and, occasionally, on weekdays.

The 15 operational ranges at Biak Training Center are categorized as Unlikely.

Unlikely – Five-Year Review

Fifteen ranges at Biak Training Center are categorized as Unlikely, totaling 27,960 acres. These ranges consist of training areas, armored vehicle launch bridge areas, small arms ranges, a drop zone, a helipad, and a ropes course. Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions that could present an unacceptable risk to human health or the environment are categorized as Unlikely. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations, site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment.

Table ES-1 summarizes the Phase I Assessment findings.

Table ES-1: Summary of Findings and Conclusions for Biak Training Center

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	2 operational ranges; 4 acres	Small arms ranges	Incomplete	Not evaluated (no complete pathways were identified)		Re-evaluate during the five-year review. Groundwater and surface water pathways are incomplete.
	13 operational ranges; 27,956 acres	No source – limited or no military munitions use	Not evaluated (no source was identified)		Re-evaluate during the five-year review. No source was identified.	

ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Geodatabase
AVLB	Armored vehicle launch bridge
bgs	Below ground surface
BLM	Bureau of Land Management
COUTES	Central Oregon Unit Training and Equipment Site
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
FY	Fiscal Year
GIS	Geographic Information System
GW	Groundwater pathway identified. (This refers to range grouping; M designation always precedes GW designation.)
H	Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.)
ITAM	Integrated Training Area Management
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCL	Maximum contaminant level
MCOC	Munitions constituents of concern
mph	Miles per hour
NG	Nitroglycerin
ORAP	Operational Range Assessment Program
ORARNG	Oregon Army National Guard
OMD	Oregon Military Department
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RFMSS	Range Facility Management Support System
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TA	Training Area
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit

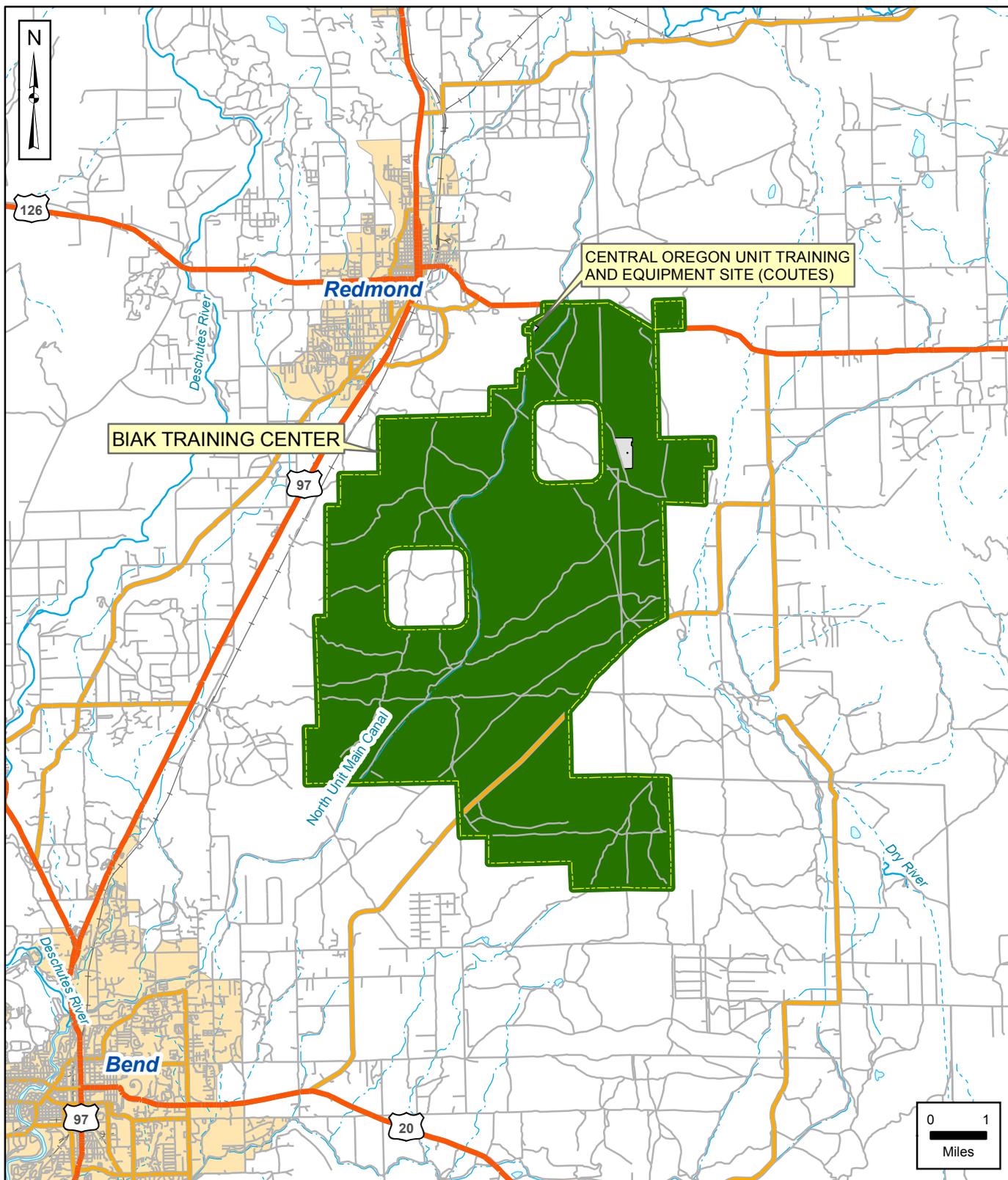


**MALCOLM
PIRNE**

**Operational Range Assessment Program
Phase I Qualitative Assessment
Biak Training Center, OR**



**Figure 1-1
General Biak Training Center Location**



Installation

- Installation Boundary
- Operational Area
- Other than Operational Area

Hydrology

- River/Stream (Perennial)
- Stream (Intermittent)
- Canal/Ditch
- Water Body

Transportation

- Highway
- Major Road
- Local Road
- Urbanized Area

Data Sources:
AEC, ARID-GEO, 2005
ORARNG, 2006
ESRI, StreetMap USA, 2005

Date: April 2007
Prepared By: Malcolm Pirnie, Inc.
Prepared For: U.S. Army
Contract: W912DR-05-D-0004