

**FINAL
OPERATIONAL RANGE ASSESSMENT PROGRAM
PHASE I QUALITATIVE ASSESSMENT REPORT
CENTENNIAL TRAINING SITE
COLORADO SPRINGS, COLORADO**

JULY 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.
3101 Wilson Boulevard
Suite 550
Arlington, Virginia 22201



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 (ORAP). This Phase I Assessment evaluates the operational range area at the Centennial Training Site (TS) 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.

Centennial TS is located in El Paso County approximately 10 miles south of downtown Colorado Springs and four miles west of Fountain, Colorado. Centennial TS occupies approximately 310.26 acres of land within the boundaries of Fort Carson, which is an active U.S. Army installation. The land surrounding Centennial TS is being addressed as part of a separate ORAP Phase I Assessment for Fort Carson. Butts Road borders the ranges at Centennial TS.

The Army Range Inventory Database-Geodatabase (ARID-GEO) (2005) refers to the site as Colorado Springs TS, but Colorado Army National Guard (COARNG) personnel call the site Centennial TS. The name Centennial TS was used for this report. According to ARID-GEO (2005), the training site contains 310.26 acres of operational range area, which include two separate land parcels: a 19.68-acre modified record firing range (small arms range) and a 290.58-acre field training area. The land occupied by the Centennial TS is owned by Fort Carson. The COARNG signed an agreement with Fort Carson in 1994 to use the two areas of land (Centennial TS Budget Analyst, pers. comm.).

Potential MCOC associated with the small caliber munitions types used at Centennial TS are metals (including lead, antimony, copper, and zinc) and nitroglycerin. No pathways were identified by which potential MCOC could migrate off-range. Therefore, human and ecological receptors were not evaluated.

The two operational ranges at Centennial TS are categorized as Unlikely.

Unlikely – Five-Year Review

Two ranges at Centennial TS are categorized as Unlikely, totaling 310.26 acres. These ranges consist of one small arms range and one field training area. 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 off-range 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 or 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 Centennial TS

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	2 operational ranges; 310.26 acres	Berms and additional locations throughout the range due to soil movement during construction	None	Not evaluated (no pathway identified)		Re-evaluate during the five-year review. No complete pathways were identified.
		No source—limited or no military munitions use	Not evaluated (no source identified)		Re-evaluate during the five-year review. No source was identified.	

ABBREVIATIONS/ACRONYMS

amsl	Above Mean Sea Level
ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below Ground Surface
COARNG	Colorado Army National Guard
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.)
ft/day	Feet per Day
gpm	Gallons per Minute
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.)
HUC	Hydrologic Unit Code
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MATES	Maneuver Area Training and Equipment Site
MCOC	Munitions Constituents of Concern
NG	Nitroglycerin
ORAP	Operational Range Assessment Program
PA	Public Address
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.)
SWMU	Solid Waste Management Unit
TS	Training Site
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

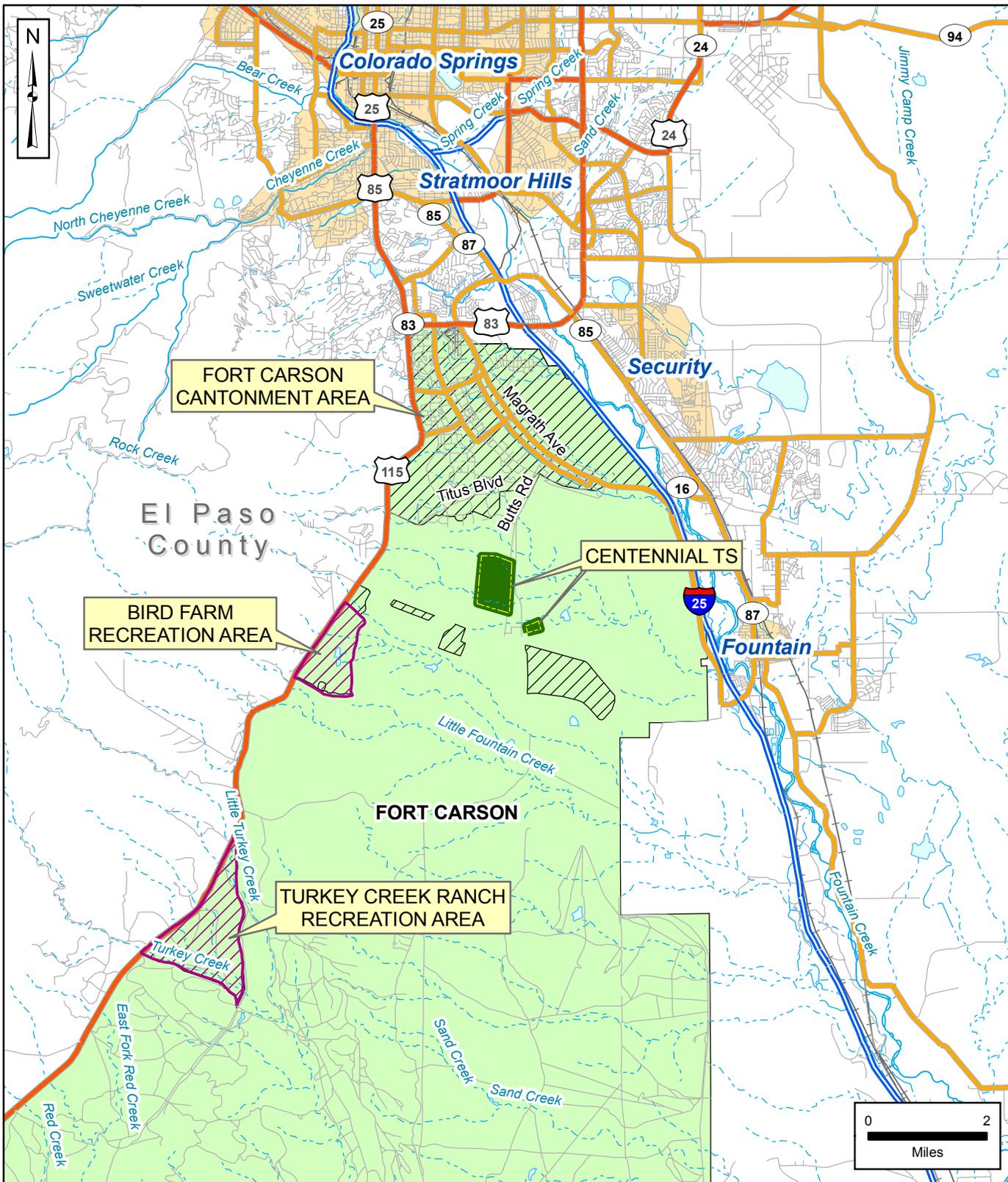


**MALCOLM
PIRNIÉ**

**Operational Range Assessment Program
Phase I Qualitative Assessment
Centennial TS, CO**

Figure 1-1

General Centennial TS Location



Installation

- Installation Boundary
- Operational Area
- Fort Carson Area
- Fort Carson Cantonment Area

Hydrology

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

Transportation

- Interstate
- Highway
- Major Road
- Local Road
- Railroad

Administrative

- Urban Area
- Recreation Area

Data Sources:

AEC, ARID-GEO, 2005
ESRI, StreetMap USA, 2005

Date: July 2008

Prepared By: Malcolm Pirnie, Inc.

Prepared For: U.S. Army

Contract: W912DR-05-D-0004