

INFORMATION BRIEF

Fort Ord Military Munitions with Sensitive Fuzes in Track 3 Munitions Response Sites (MRS)

Issue: Characterize the areas (grids) related to the disposition of military munitions with sensitive fuzes in Track 3 area as described in the RD/RA

Purpose: To describe data collected by the Army reference the known and predictability of the disposition of munitions with sensitive fuzes in Track 3 area.

“Based on a review of currently available data, an estimated 85 acres of the Impact Area MRA could contain significant amounts of UXO that are military munitions with sensitive fuzes and/or associated metallic debris. These UXO could present a significant hazard to people that may work within these 85 acres if only a surface MEC removal is conducted. This acreage is a candidate for subsurface MEC removal that may include sifting the top 2-foot layer of soil, which would cause significant temporary impacts and loss of listed species, seed bank, or critical habitat. It should be noted that the size of the area that would require excavation and sifting is approximate. **The actual area requiring the use of this removal process will be confirmed during remediation.** (By agreement of the MR BCT to an Army proposal, the confirmation process subsequently included surface monitoring of areas where a surface removal has been completed [*Track 3 Surface Monitoring Program*, 2009]). Depending on the actual size of these large-scale excavations, it may also be necessary to re-initiate formal consultation with the U.S. Fish and Wildlife Service (USFWS) under the requirements of the Endangered Species Act (ESA).”
(*Track 3 RDRA*)

Definitions:

Munitions with Sensitive-Fuzes – Munitions fuzed with all-ways-acting or piezoelectric fuzes, or 40mm grenade launcher high explosive (HE) or 40mm practice munitions M382 series or M407 series [or any other 40mm practice series munitions containing enough explosives to rupture the projectile]. (*Track 3 RD/RA*) (*66mm and 90mm Antitank projectile UXO included*)

High Subsurface Anomaly Density – The occurrence of an established minimum number of subsurface anomalies (225 per grid) or the occurrence of subsurface anomalies in a density that precludes the identification of individual anomalies within a grid.

Candidate Grid– A grid with high density anomalies **associated** with munitions with sensitive fuzes (*Track 3 ROD*).

In that technology is not yet proven to discriminate munitions with sensitive fuzes as or among subsurface anomalies, an alternative definition is: Surface MEC removal grids within MRS-BLM, where munitions and explosives of concern (MEC) removal operations, surface monitoring, or incidents identify sensitively fuzed munitions and DGM results indicate a high density of subsurface anomalies after a surface removal action.

This definition is of limited use for identifying candidate grids in that most if not all high density subsurface anomalies occurring in MEC removal grids can be attributed to other than military munitions with sensitive fuzes or related debris.

Associated Grids–grids where munitions with sensitive fuzes were found and those grids in a relational proximity to such grids.

Outlier - An individual munition with a sensitive fuze that does not occur within an associated grid or other discrete data group.

Available Reliable Data:

1. **Area of Track 3** (Map) (Shaded area indicates area remaining for Track 3 MEC removal actions)
2. **Location of ranges authorized for use subject munitions** (records) (does not discriminate between types of munitions with sensitive fuzes authorized) Reflect max range of authorized munitions. Data indicates that some authorized ranges were not used for any or limited types of munitions.
3. **Location of subject munitions**
Finds during MEC removal actions (Map).
Subsequent finds (pre cleanup incidents [EOD], MEC Incidents [1] and surface monitoring results [0]).
Does not discriminate between types of munitions with sensitive fuzes authorized. The 40mm grenade is the predominate munition with sensitive fuzes used.
4. **Location of high density of subsurface anomalies** (Map, grids) (high = 225 anomalies or more per grid)
5. **Maximum range fans target, topography and subject munitions disposition** (Map, records and terrain analysis)
6. **Location of related targets** (GPS data)
7. **Areas of association with finds** (grids within 1,000 ft. of a grid with surface munitions with sensitive fuzes)

Some possible actions:

- A. Continue surface monitoring, mapping of MEC removal and other finds:** MEC removal continues in Track 3. Surface monitoring of associated grids for evidence of surface sensitively fuzed munitions where a MEC removal has been completed has not produced any sensitively fuzed UXO on the surface. Some MD associated with sensitively fuzed munitions has been identified in associated grids.

- B. Examine Associated Grids:** Use techniques and technology to further discriminate subsurface anomalies.

- C. Conduct Additional Surface MEC Removal:** Conducted surface removal in grids where surface sensitively fuzed munitions have been subsequently found. (remove a future hazard)

- D. Conduct Additional Subsurface MEC removal to:**
 - assess associated grids.
 - assess capabilities to remove subject anomalies using other than a screening process.
 - screen (anomaly remove) all associated grids.