



# STANDARDIZED UXO DEMONSTRATION SITES

## ACRONYMS, ABBREVIATIONS, AND EXPLANATION OF COMMON TERMS

# GLOSSARY



### A

AERTA – Army Environmental Requirements and Technology Assessments

AI – Artificial Intelligence

Anomaly – Location of a system response deemed to warrant further investigation by the demonstrator for consideration as an emplaced ordnance item.

APG – Aberdeen Proving Ground, Maryland

ATC – Aberdeen Test Center

### B

BAA – Broad Agency Announcement

BAR – Background Alarm Rate

Binomially Distributed Random Variable – A Random variable of the type which has only two possible outcomes, say success and failure, is repeated for 'n' independent trials with the probability 'p' of success and the probability '1-p' of failure being the same for each trial.

### C

CEHNC – U.S. Army Corps of Engineers Huntsville Engineering and Support Center

COTS – Commercial-Off-The-Shelf

### D

DAQ/DAS – Data Acquisition/Data Analysis System

Deep – Items buried greater than or equal to 1 meter below ground surface.

Detection – An anomaly location that is within  $R_{halo}$  of an emplaced ordnance item.

Discrimination Stage Threshold – The demonstrator selected the threshold level believed to provide optimum performance of the system by retaining all detectable ordnance and rejecting the maximum amount of clutter. This level defines the subset of anomalies the demonstrator would recommend digging based on discrimination.

DM – Dual Mode

DMM – Discarded Military Munitions

### E

EM – Electromagnetic

EMI – Electromagnetic Induction

Emplaced Clutter – A clutter item (i.e., non-ordnance item) buried by the government at a specified location in the test site.

Emplaced Ordnance – An ordnance item buried by the government at a specified location in the test site.

EQT – Environmental Quality Technology

ERDC – Engineer Research and Development Center

ESTCP – Environmental Security Technology Certification Program

ETMP – Environmental Technology Management Plan

### For more information

U.S. Army Environmental Command  
Public Affairs Office  
410-436-2556, fax 410-436-1693  
e-mail: APGR-USAECPublicAffairsOffice@  
conus.army.mil  
<http://aec.army.mil>

## F

FAR – False Alarm Rate

FDEM – Frequency Domain Electromagnetic

FUDS – Formerly Used Defense Sites

## G

GMR – Giant Magnetoresistance

GOTS – Government-Off-The-Shelf

GPR – Global Penetrating Radar

GPS – Global Positioning System

## H

HFS – High Frequency Sounder

HH – Handheld

## I

IMU – Inertial Measurement Unit

INS – Inertial Navigation System

ITRC – Interstate Technology and Regulatory Council

## J

JPG – Jefferson Proving Ground

JUXOCO – Joint Unexploded Ordnance Coordination Office

## L

Large Ordnance – Caliber of ordnance greater than 81mm (includes 105mm HEAT, 105mm projectile, 155 projectile, 500lb bomb).

## M

Mag – Magnetic/Magnetometry

MAUDE – Management Aid for UXO Detection Efforts

MEC – Munitions and Explosives of Concern

Medium – Items buried greater than or equal to 1 meter below ground surface.

Medium Ordnance – Caliber of ordnance greater than 40mm and less than or equal to 81mm (includes 57mm projectile, 60mm mortar, 2.75-inch rocket, MK118 Rockeye, 81mm mortar).

MMRP – Military Munitions Response Program

MRA – Munitions Response Area

MRS – Munitions Response Site

## O

ORD – Operational Requirements Document

## P

$P_{ba}$  – Probability of Background Alarm

$P_d$  – Probability of Detection

$P_{det}$  – Probability of Detection

$P_{fp}$  – Probability of False Positive

## R

$R_{ba}$  – Background Alarm Rejection Rate

Response Stage Noise Level – The level that represents the point below which anomalies are not considered detectable. Demonstrators are required to provide the recommended noise level for the Blind Test Grid Area.

RF – Radio Frequency

$R_{fp}$  – False Positive Rejection Rate

$R_{halo}$  – A pre-determined radius about the periphery of an emplaced item (clutter or ordnance) within which a location identified by the demonstrator as being of interest is considered to be response from that item.

ROC – Receiver-Operating Characteristic

## S

SBIR – Small Business Innovative Research Program

SERDP – Strategic Environmental Research and Development Program

Shallow – Items buried less than 0.3 meters below ground surface.

Small Ordnance – Caliber of ordnance less than or equal to 40mm (includes 20mm projectile, 40mm projectile, submunitions BLU-26, BLU-63, and M42).

STO – Science Technology Objective

## T

TDEM – Time Domain Electromagnetic

TMGS – Tensor Magnetic Gradiometer System

## U

USACE – U.S. Army Corps of Engineers

USAEC – U.S. Army Environmental Command

UWB – Ultra-Wide Band

UXO – Unexploded Ordnance

## V

VETEM – Very Early Time Electromagnetic Sensor

## Y

YPG – Yuma Proving Ground, Arizona

