MOBILE MUNITIONS ASSESSMENT SYSTEM (MMAS)

The U.S. Army Chemical Materials Activity Recovered Chemical Materiel Directorate uses the Mobile Munitions Assessment System to provide analysis of recovered items with unknown fills. MMAS uses nonintrusive assessment equipment to rapidly provide detailed information on recovered items and distribute that information to appropriate authorities, reducing risk to the public, military and emergency personnel.

Unexploded or buried munitions may be found on test ranges and at munition burial sites. When recovered, the contents of these items may not be easily identifiable. MMAS can travel to the site, rapidly identify the contents and condition of recovered items and provide detailed analysis with minimal handling.

MMAS also serves as a command center, equipment storage area and weather monitoring system to determine optimal conditions for assessment operations. MMAS operators use cameras to monitor activity around the site. The MMAS can be driven or transported by military aircraft to all 50 states and can remain on site for extended periods. Once on site, the system can operate within 25 minutes, powered by a portable generator.

In addition to assessing recovered military items with unknown fills, the Mobile Munitions Assessment System also serves as a command center, equipment storage area and weather monitoring system.

KEY MMAS TOOLS

Digital Radiography and Computed Tomography: DRCT uses X-ray photography to produce high-quality images of an item's interior to show if the munition contains a liquid fill and explosive potential.

Portable Isotopic Neutron Spectroscopy System: PINS accurately detects the presence of chemical elements using neutron particles to produce a unique energy spectrum given off by chemicals inside a munition.

Raman Spectrometer: Using a fiber optic probe and laser, Raman identifies the contents of Chemical Agent Identification Sets, glass bottles containing various agents and industrial chemicals once used to train soldiers.

REV: 20250723

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