Proposed UXO Standard Analysis Software Status Report Released

Posted At : September 29, 2009 9:40 AM | Posted By : Admin
Related Categories: Research

The U.S. Army Engineer Research and Development Center (ERDC) released a report on the status of the Unexploded Ordnance Data Analysis System (UXODAS). According to the status report, the ultimate goal of the UXODAS is become a common platform to "enable interoperability and data incorporation into a single software package, providing the capability and tools to import, process, interpret, and visualize the results of UXO geophysical surveys from a variety of sensors".

The UXODAS system is designed to work with total field magnetometers (TFM), frequency-domain electromagnetic induction (FDEM) systems, and time-domain electromagnetic induction (TDEM) systems. The UXODAS system is designed to accept raw geophysical sensor data and positional data and apply tools to merge and correct the data including area coverage (i.e., survey area gap analysis), time synchronization, and drift corrections before applying detection and discrimination algorithms. The desired outputs of the system include target dig sheets, target rankings, discrimination / target identification, and confidence indicators. For target identification using FDEM data, a signature-matching algorithm was developed and integrated into UXODAS.

The UXODAS appears to be a collaboration of newly developed code and features built from an existing commercial software package that also accesses or passes data to and from another commercially available software system to perform mathematical modeling and graphical display. In the report, ERDC states that the UXODAS is a "continuing work in progress" but that an immediate goal is to "make available to the user community the processing and interpretation tools developed under the Army EQT [Environmental Quality Technology Program] UXO Research and Development Program by ERDC". Despite this claimed goal of making the products developed with Government funding available, the report does not provide any information on how anyone in the industry interested in the system can obtain a copy of the software and algorithms developed to date nor does the report provide an adequate description of whether or not users will be expected to purchase the two commercial software programs that seem to be doing the bulk of the actual data processing, manipulation, and displaying of the results.

It is unclear how the system will eventually be commercialized, distributed, and maintained and what the end unit target cost for the software will be for those in the UXO industry. For the time being, ERDC is maintaining the UXODAS system.

To view the September 2009 UXODAS report issued by ERDC use the download link below.