

# PRESS RELEASE

## Observera Inc. provides advanced change detection capability to the Warfighter

Chantilly, VA, September 13, 2005 – Observera, Inc. is applying its imagery and systems engineering expertise to assist the Warfighter with a more automated “mine” detection process. Both landmines and other explosive threats slow movement along supply routes as well as injure or kill military personnel and civilians. Observera intends to mitigate the effects of clandestine mining activity with several Change Detection Workstations (CDWS) that were recently delivered to US forces.

Sponsored by the U.S. Army RDECOM CERDEC Night Vision and Electronic Sensors Directorate, the CDWS system is an integrated hardware and software solution that exploits airborne imagery from multiple sensors. The system allows analysts to compare recently collected images with previous ones in order to identify signatures that may represent emplaced mines or other explosive devices. The locations of these signatures are then communicated to mine clearance teams using Web-based spot reports, which include actual airborne imagery.

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Currently, the CDWS has the capability to analyze imagery from electro-optical (EO) and thermal infrared (IR) sensors. These sensors capture the data in video, fixed-frame, pushbroom or whiskbroom formats. During the processing, the imagery is registered in real-time to create high quality, geo-registered image mosaics. The mosaics are then compressed utilizing Earth Resource Mapping's Enhanced Compressed Wavelet (ECW) Technology™, loaded into a Web application called the Change Detection Application (CDA) and served to multiple users using Earth Resource Mapping's Image Web Server™.

The CDWS is an integrated solution that utilizes advanced technologies including Observera's RAVEN View™ video exploitation software, Earth Resource Mapping's ER Mapper™ image processing and dissemination software, and Sarnoff Corporation's video processing hardware. When coupled with Unmanned Aerial Vehicle (UAV) platforms the CDWS solution provides commanders the ability to collect as well as process valuable information products in near-real time.

Observera intends to use the CDWS to mitigate the effects of mines and explosive threats. “While this problem is a difficult one, we hope to see some real results in both manual and automated detection with our systems”, com-

ments Todd Jamison, Chief Scientist at Observera. “Airborne imagery is a valuable data source for obtaining information quickly in a manner that allows US Forces to maintain operational tempo along their lines of communication”. To date, the CDWS has been demonstrated with five types of manned aircraft and six different UAVs to help support assured mobility and force protection for deployed troops.

Mines and other explosive threats pose a serious threat to US military and civilian personnel and the routes on which they depend. Observera is providing an im-

agery solution that will assist in the safe detection and removal of these devices.



*Observera is a solutions provider specializing in sophisticated imagery and geospatial information processing products and services. Headquartered in Chantilly, Virginia Observera provides image processing, remote sensing, system engineering, and GIS support to government and commercial clients.*

