



UNITED STATES DEPARTMENT OF DEFENSE

# HUMANITARIAN DEMINING R&D PROGRAM

## LUXOR

A remote control vehicular UXO detection system using an array of UPEX 740M large loop metal detectors.

The Large Loop Unexploded Ordnance Remediation (LUXOR) is a remote control vehicular detection system designed for UXO site remediation. LUXOR consists of an array of three 1x1 meter wide UPEX 740M large loop, deep search metal detectors mounted on a remote-control commercial-off-the-shelf (COTS) Land Tamer 6x6 all terrain vehicle. The LUXOR has the capability to quickly cover large areas of open terrain autonomously to locate and mark metallic objects. The system utilizes differential global positioning system (DGPS) for centimeter accuracy of target locations and ensures 100% coverage via real-time ground mapping capability.



### STATUS

The LUXOR system underwent an evaluation in March 2009 in Cambodia.

LUXOR is undergoing an operational field evaluation in Cambodia with the Cambodian Mine Action Center.

The DGPS enables LUXOR to map target locations, which battle area clearance (BAC) teams can reacquire from the GPS coordinates. Additional features include pre-programmable self navigation, remote video monitoring and real-time monitoring of the sensor path and system diagnostics.

LUXOR completed a successful evaluation in Cambodia during March 2009. The system successfully found sub-munitions down to 30 cm and larger caliber rounds down to 1.5 meters.

Cutting-Edge Solutions  
DEMINING TECH

MINE DETECTION



## FEATURES

- Remote controlled Land Tamer 6x6 all terrain vehicle
- Configurable array mounted on a vibration dampening frame
- Array can be deployed in a towed or front-mounted configuration
- Pre-programmable self-navigating capability
- Real-time ground mapping capability
- Creates GPS dig lists of UXO alarm locations
- Remote Video surveillance



Remote Control



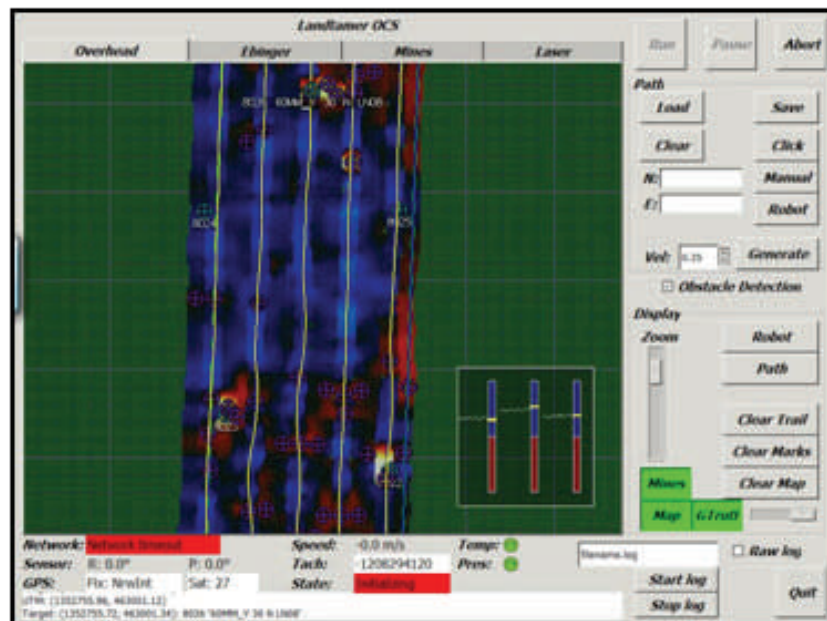
Ebinger UPEX 740 Deep Search Sensor Array

## APPLICATIONS

- UXO clearance
- Ideal for large relatively flat open areas free from vegetation
- Accurate technical survey assistance
- Autonomous area coverage reduces manpower and operator requirements for site surveys

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- Platform: Remote controlled COTS Land Tamer 6x6 all terrain vehicle
- Remote Range: 250+ meters line of sight
- Sensor: A configurable array of three 1x1 meter wide Ebinger UPEX 740M deep search metal detectors
- Frame: Sensor can be deployed in a towed or front-mounted configuration and is equipped with vibration dampening
- Navigation: Multiple pre-programmable autonomous coverage patterns available
- Differential GPS provides mapping capability and centimeter accuracy of sensor path and targets
- Remote operator control station with video surveillance



Operator Control Station Digital Mapping and Target Marking Display Window