



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 technical testing in Cambodia.

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 is undergoing a technical evaluation in Cambodia where it has successfully detected sub-munitions to a depth of 50cm, and larger caliber munitions 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



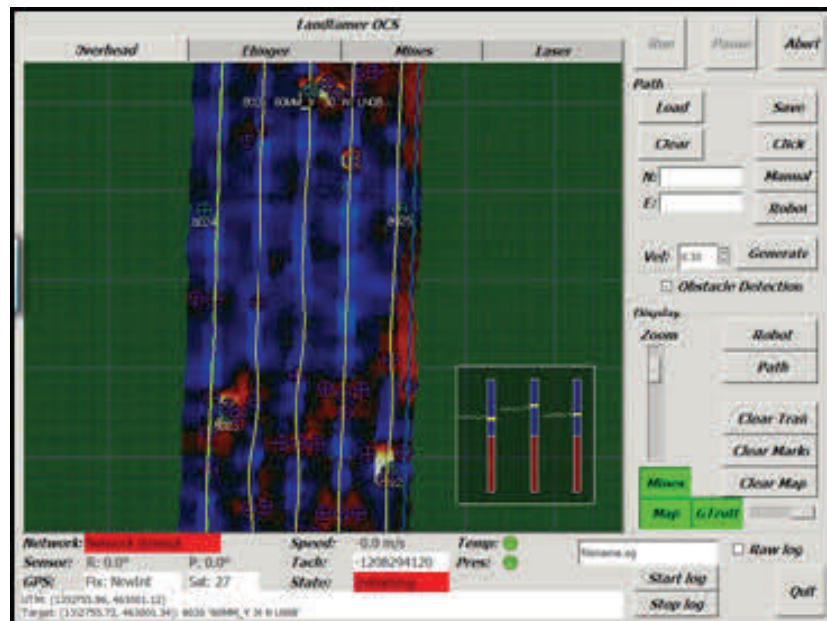
Ebinger UPEX 740 Deep Search Sensor Array

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

Government POC
 US Army RDECOM CERDEC NVESD
 Attn: Zeke Topolosky
 10221 Burbeck Road
 Fort Belvoir, VA 22060-5806 USA
 zeke.j.topolosky.civ@mail.mil
 www.humanitarian-demining.org

- 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