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## HD R&D Field Evaluation: Target Reacquisition and Positioning System (TRPS)

U.S. Humanitarian Demining Research and Development  
*U.S. HD R&D*

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UNITED STATES DEPARTMENT OF DEFENSE

# HUMANITARIAN DEMINING R&D PROGRAM

**Compact, easy to use and highly accurate target reacquisition and survey tool**

## Target Reacquisition and Positioning System (TRPS)

The Target Reacquisition Positioning System (TRPS) is a dual-purpose, target reacquisition and survey tool. TRPS is a lightweight (less than five pounds), low-cost and highly accurate system that simplifies the use of Differential Global Positioning System (DGPS) for reacquiring ground target positions that were previously identified by detection systems capable of GPS tagging detected objects. TRPS is also a surveying tool that provides the ability to quickly survey boundaries, locations of items found, or mark other points of interest with centimetre level accuracy.

TRPS consists of 100% commercial-off-the-shelf equipment. The TRPS software runs on an Android smart phone. A key TRPS component is a Hemisphere GPS



### STATUS

Operational field evaluations (OFE) are ongoing in **Bosnia and Herzegovina** and in **Cambodia** with the Mines Advisory Group, and in the **West Bank** with The HALO Trust.

S320 GNSS Survey “smart antenna” Receiver, which combines GPS Antenna, Batteries, Bluetooth and UHF radio in one highly-integrated package. TRPS can be prepared for operation in less than 10 minutes and will operate continuously for up to 8 hours.

Cutting-Edge Solutions  
**DEMINING TECH**

**MINE DETECTION**



## FEATURES

- Real-time map display: Maps and satellite image overlays downloaded and/or supplied by user
- Easy to train
- Lightweight: <5lbs
- Energy efficient—up to 8 hours continuous operation
- Simple setup
- Highly accurate
- Rapid target reacquisition allows fast walking speed
- Compact, Wireless: GPS antenna, UHF, batteries in one weather-proof enclosure

## APPLICATIONS

- Rapid reacquisition of UXO targets identified by UXO detection systems
- Marking critical locations within a BAC task that are compatible with other geographical information system software packages

US Army RDECOM CERDEC NVESD  
info@nvl.army.mil  
10221 Burbeck Road  
Fort Belvoir, VA 22060-5806 USA  
[www.humanitarian-demining.org](http://www.humanitarian-demining.org)

## S320 GNSS Receiver



TRPS/GPS Setup



Cambodian Deminers using TRPS