Critical Solutions
International

3D-RADAR

GROUND PENETRATING RADAR

EXPLORE DEEPER.

3D-RADAR

3D-RADAR provides reliable automatic detection of subsurface objects to depths beyond a meter. 3D-RADAR leverages rugged commercial-off-the-shelf (COTS) technology components – including the radar itself – as key building blocks of a modular, integrated system. This approach has allowed the system to continually evolve and improve at the rate of technological advance in the commercial marketplace. Coupled to the hardware, custom software provides automatic target detection (ATD) cues and affords the operator the ability to visualize and interrogate 3-dimensional data in real time.

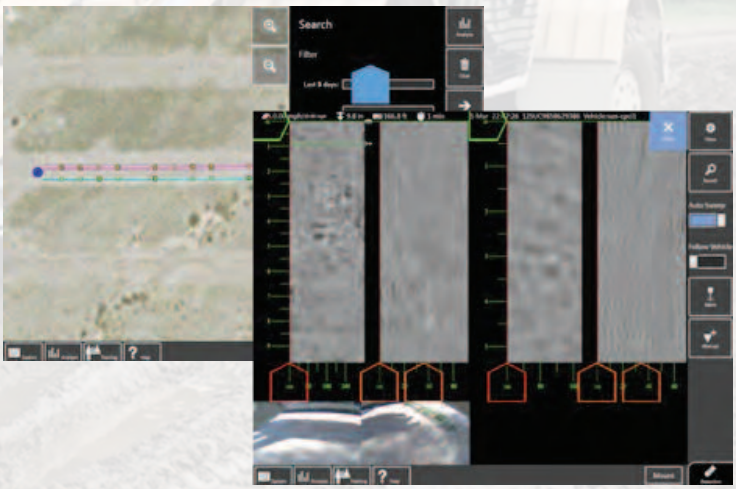
The 3D-RADAR system is a complete subsurface anomaly detection system that utilizes a combination of COTS GPR components and custom software as the building blocks to achieve robust metallic and non-metallic object detection performance. The system is ready off the shelf to be fitted to a wide range of commercial and military vehicles, and can be customized for operation on almost any vehicle platform. The system utilizes a flexible and open software architecture that allows threat detection algorithms to be tailored to specific environments and threat sets. Operators may select from manual, assisted manual and automatic detection modes. The detection architecture allows for the addition of secondary sensors.

SENSOR OPTIONS

The 3D-RADAR system provides an alternative detection solution for roadway and airfield inspection, tunnel detection, and route clearance patrols.

System attributes include:

- Optimal combination of penetration and resolution
- Superior interference suppression through narrow band receive filters
- UWB Step Frequency GPR with Air-Coupled Antenna
- Ultra wide band frequency range (200-3000 MHz)
- 0-15kph rate of advance (5kph without overpass)
- Sensor operates at 0.1-1.0m above ground height and 1-2.5 m forward offset
- Operates in wide temperature range (0-50C Operating/ -40-85C Storage)
- Operates in conditions of sand, dust, and rain
- Advanced post-processing software tools with georeferenced output



Map integration with onboard mission planning and real-time access to previous missions for side-by-side comparison with historical data.

ABOUT CSI

Critical Solutions International (CSI) has built upon decades of route clearance and counter-improvised explosive device experience to develop and deliver the most complete commercial and military assured mobility portfolio.

Critical Solutions International

Chemring Group

This product is provided in collaboration with Chemring Group

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