



NIITEK

HUSKY MOUNTED DETECTION SYSTEM (HMDS)

Before the First Step



VISOR™ 2500
by NIITEK

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PREVENT. PROTECT. SAVE LIVES.

NIITEK's high performance VISOR™2500 Ground Penetrating Radar (GPR) forms the heart of the U.S. Army's HMDS, and provides unprecedented performance in the automatic detection, recognition, and precision marking of buried explosive hazards. These systems are currently deployed in Afghanistan. Based on NIITEK's proven breakthrough GPR technology, HMDS combines advanced real-time ATR algorithms, optional integrated metallic and non-metallic threat detection, automatic precision marking, and user-friendly software, all in a ruggedized, supportable, affordable package.

FEATURES

- + Readily adaptable to other vehicles
- + Breakthrough Pd/FAR* performance
- + Integrated on Husky vehicle
- + Automated sensor height control
- + Intuitive controls/touchscreen display
- + Same GPR technology as FCS
- + 3D subsurface visualization

BENEFITS

- + MRAPS and remotely controlled vehicles
- + High confidence countermine operations
- + Maximized protection of operators
- + Optimized performance on uneven terrain
- + Rapid proficiency/ease of use
- + Compatibility with U.S. Army plans
- + Troops can "see" buried threats

* Pd= Probability of Detection; FAR= False Alarm Rate



HUSKY MOUNTED DETECTION SYSTEM (HMDS)

SYSTEM CONFIGURATION AND TECHNICAL PERFORMANCE



PHYSICAL

Major Components

Sensors

- + Front-Mounted, VISOR™ 2500 Ground Penetrating Radar, with 4 panel 3.2 meter array
- + Optional Rear-Mounted, EM61 See-Deep Metal Detector Array
 - Synchronized EMI Coils 3meter Wide Scan
 - Fiberglass Beam Construction
 - Automatically Deployable and Stowable

GPR and MD Data Processing

- + Automatic Target Recognition Algorithms

Processing and Control

- + Duracor PC104 Based Computer
- + Cab-Mounted Tablet Display with GUI

Navigation

- + NGC LN-270 INS with GPS, SAASM Anti-Jamming Module and Starfire DGPS Module

Marking System

- + Front-Mounted 4-Jet Marking Bar for GPR
- + Center Body-Mounted 12-jet Marking Bar for GPR
- + Metal Detector (optional): Aft-Mounted 4-Jet System

GPR Panel Positioning System

- + Hydraulically-Controlled Deploy and Retract Modes with Damage Resistant Features

PERFORMANCE

Buried Explosive Hazard (BEH) Detection System

High Probability of Detection (Pd) and Low False Alarm Rate (FAR)

- + Metallic Buried Threat Detection
- + Non-Metallic Buried Threat Detection
- + Real-Time Detection
- + User Selectable Detection Modes

Graphical User Interface

- + Real-time GPR Sensor Imagery
- + Detection Controls
- + Bracket Controls
 - Deploy, Stow, Skyshot Calibration, and Manual Height
- + System Status Monitors

Target Marking

- + GPS Coordinates
- + Physical Marking
 - Center body Mounted 12-Jet Spray Array (14cm resolution)
 - Front Mounted 4-Jet (1m resolution)

Advance Rates of up to 12 kph

Records Mission Data

- + GPR Imagery, MD Data, Target Declarations, GPS Coordinates, Confidence Factors
- + File Management
- + Stores 100 km of Scanned Data on Local Drive

After Action Review

- + Post Analysis
- + User Comments (Threat Verified, Neutralized, FA, other)

