The U.S. Army’s Handheld Standoff Mine Detection System (HSTAMIDS) is a dual sensor mine detector that utilizes ground penetrating radar (GPR) and metal detector (MD) technology. Its data fusion algorithms combine the sensor outputs enabling the system to reliably and consistently discriminate mines from clutter. Through numerous comprehensive tests in diverse soil types and environments, HSTAMIDS has demonstrated excellent probability of detection with low false alarm rates. As the operator advances, the algorithms continuously update the terrain model, enabling the system to automatically adapt to varying soil conditions. Potential mine detections are provided to the operator via audio alert signals. Ongoing development efforts include integration of a more sensitive metal detector, de-coupling the metal detector from the GPR for improved performance against deep buried mines, and further improving GPR deep search capability with a low frequency antenna and wideband frequency spectra transceiver. Operational field evaluations (OFEs) are underway in five countries: Afghanistan with The HALO Trust; Cambodia with the Mines Advisory Group (MAG) and The HALO Trust; Kosovo, Sri Lanka and Zimbabwe all with HALO. These OFEs are providing groundbreaking results and revolutionary demining procedures that are changing the future of humanitarian demining.
FEATURES

- Dual sensor, handheld mine detector combines metal detector and GPR to detect low metal mines
- Real time data algorithms for mine-clutter discrimination
- HSTAMIDS Decoupled adds incremental capability against deep buried low metallic mines

APPLICATIONS

- Dense or highly cluttered minefields where highly accurate metal vs. mine discrimination provides greater efficiency and clearance rates

OPERATIONAL FIELD EVALUATION RESULTS

<table>
<thead>
<tr>
<th>DATES</th>
<th>SEARCH AREA (M²)</th>
<th>MINE CALLS</th>
<th>CLUTTER CALLS</th>
<th>TOTAL DETECTIONS</th>
<th>CLUTTER REJECTION (%)</th>
<th>MINES FOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar '06 – Jul '21</td>
<td>29,515,173</td>
<td>1,816,199</td>
<td>33,621,137</td>
<td>33,437,336</td>
<td>95.04%</td>
<td>56,907</td>
</tr>
</tbody>
</table>

Sri Lanka: The HALO Trust
Cambodia: Mines Advisory Group
Kosovo: The HALO Trust
Dense Mine Line in Cambodia

Extensive clutter
Extreme Conditions