Collision with electric cables, wires, antennas and terrain is a major hazard facing helicopter pilots during low level flight. Visual detection is almost impossible, especially at night and in low visibility conditions. SWORD, the electro-optics based warning system for helicopters, offers a solution for this problem. SWORD digitally maps the obstacles and terrain in front of the helicopter. Analyzing the data received, SWORD provides the pilot with both audio and visual warning signals. Safety is increased, without adding to pilot workload.
ELOP SWORD

Surveillance Warning Obstacle Ranging and Display for Helicopter

Main Advantages & Features
- Increases safety without increasing pilot workload
- Warning time exceeds 12 seconds, independent of aircraft velocity
- Detection range within 2000 meters
- Determination of obstacle attributes: type, absolute position and height AGL
- “Look into the turn” lead angle sensing improves warning time in maneuvers
- Wide performance envelope
- Visual and audio notification of relevant obstacles, including obstacle specification.
- Obstacle warning graphics overlaid on the pilot’s Aviation Night Vision Imaging System (ANVIS)/Head Up Display (HUD) image or on a dedicated Multi Function Display (MFD)

Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weight</td>
<td>&lt;20 kg</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt;180 Watt</td>
</tr>
<tr>
<td>Field of view</td>
<td>46° (H) X 26° (V)</td>
</tr>
<tr>
<td>Field of regard</td>
<td>100°</td>
</tr>
<tr>
<td>Alert time</td>
<td>12 Sec</td>
</tr>
</tbody>
</table>

Display Options

“OBST” Warning Symbol
- Heading
- 12 Sec
- 8 Sec
- 4 Sec
- Helicopter Position
- Role
- Height ASML
- Symbol for High Pole
- High Pole

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