

Surveillance & Warning
Obstacle Ranging & Display

SWORD

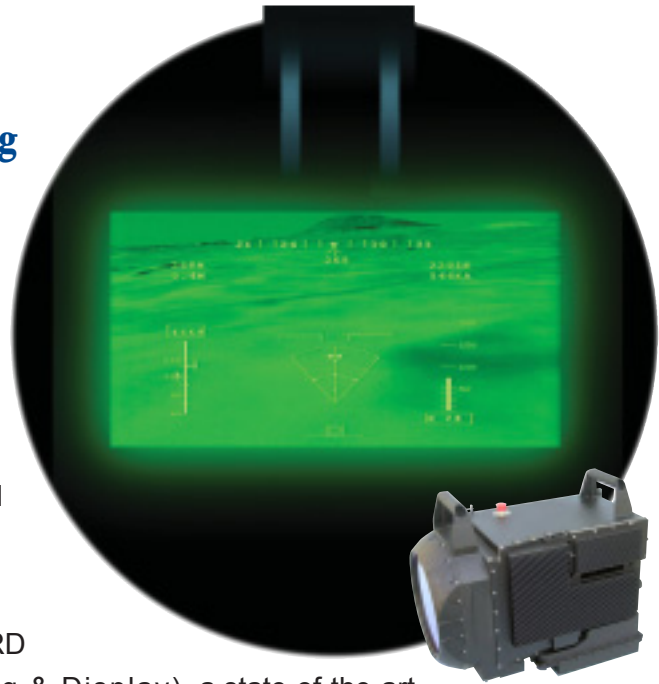


ELECTRO-OPTICS elop Ltd.

SWORD- Surveillance & Warning Obstacle Ranging & Display for Helicopters

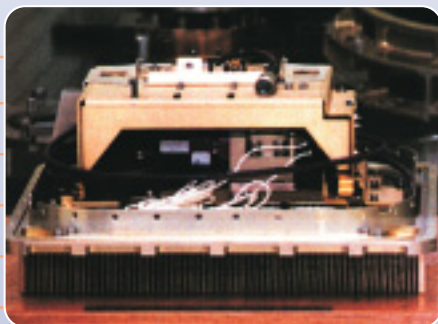
Collision with electrical cables, wires and antennas is one of the main threats helicopter pilots (both military and commercial) must deal with during low-level flight. But visual detection is almost impossible, especially under night and adverse weather conditions.

To meet this need, ELOP developed the SWORD (Surveillance & Warning Obstacle Ranging & Display), a state-of-the-art E/O based Obstacle Warning System for helicopters. Featuring high-speed beam scanning generated by an Eyesafe fiber laser, the SWORD digitally maps the obstacles and terrain in front of the helicopter. The system automatically analyzes the received data, providing the pilot with both audio and visual warning signals, increasing safety without adding to pilot's workload.



SWORD Operational Parameters

- Obstacle Detection Range: within 2000m
- Determination of Obstacle Attributes (Type, absolute position and height AGL)
- Creation of a local digital terrain and obstacles mapping
- Optimized for high turn rate
- Wide performance envelop
- Operation under reduced visibility
- Visual and audio warnings issued for obstacles in the proximity of the A/C predicted flight-path only
- Warning time of 8 sec, independent of A/C velocity

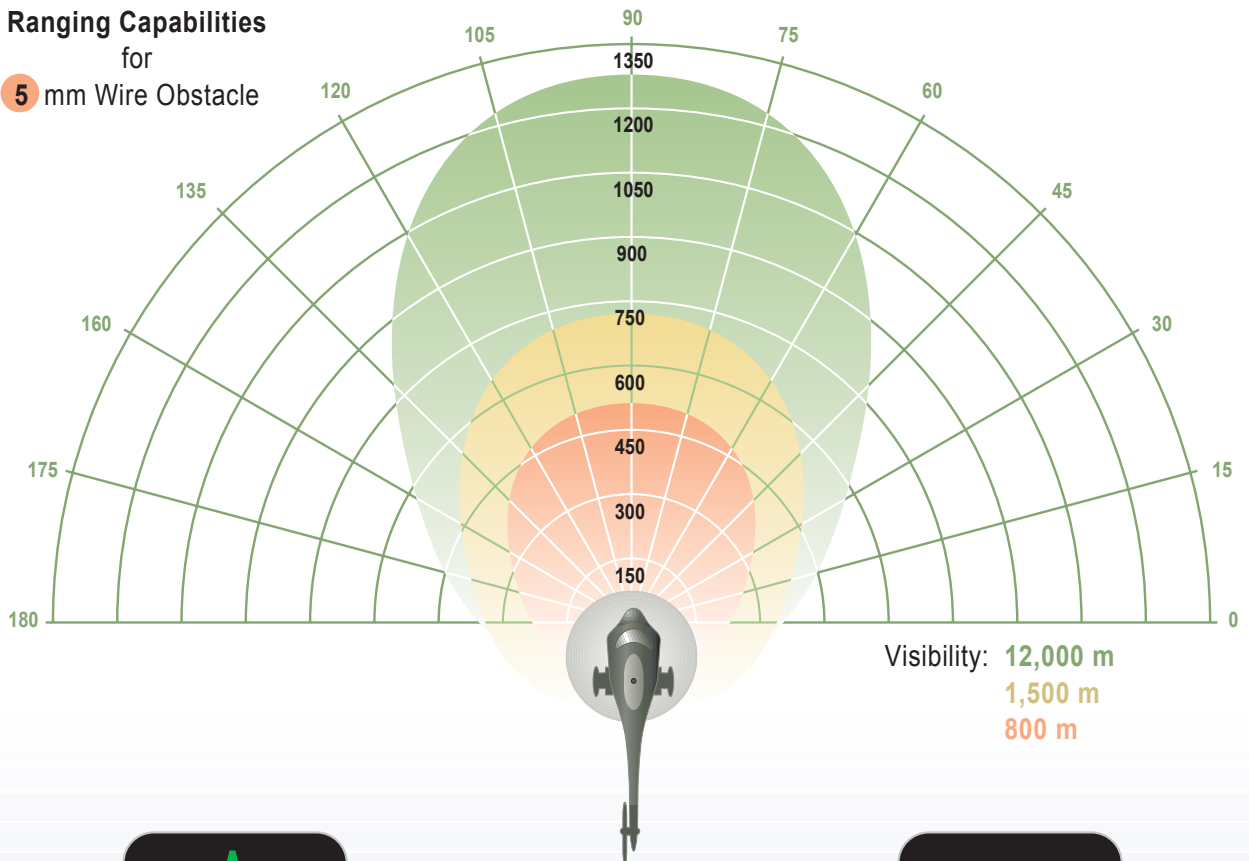


Fiber Laser Advantages

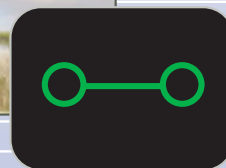
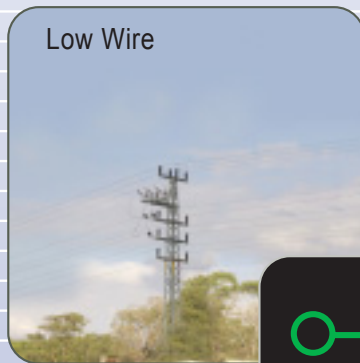
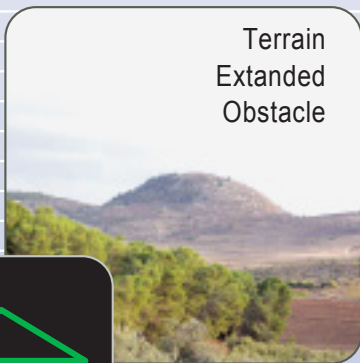
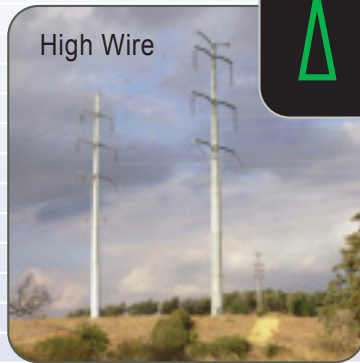
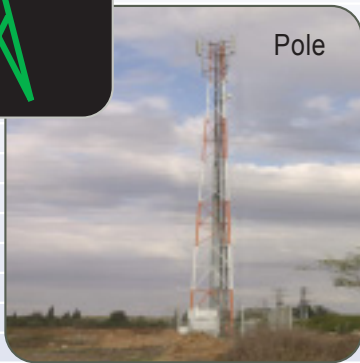
- No need for optical bench
- Thermal and mechanical stability
- Improved reliability and LCC
- Control of pulse duration
- Enables flexible designs (modularity)

Ranging Capabilities

for
5 mm Wire Obstacle



Visibility: 12,000 m
1,500 m
800 m



For more information [click here](#)