

DEGRADED VISIBILITY LANDING SYSTEM

Helmet Mounted Augmented Reality for Degraded Visual Environments

Fused sensor and geospatial data in a tactical, NVG compatible, binocular helmet-mounted display (HMD) with best-in-class helmet tracking creates an intuitive, pilot-friendly Degraded Visual Environment Landing System

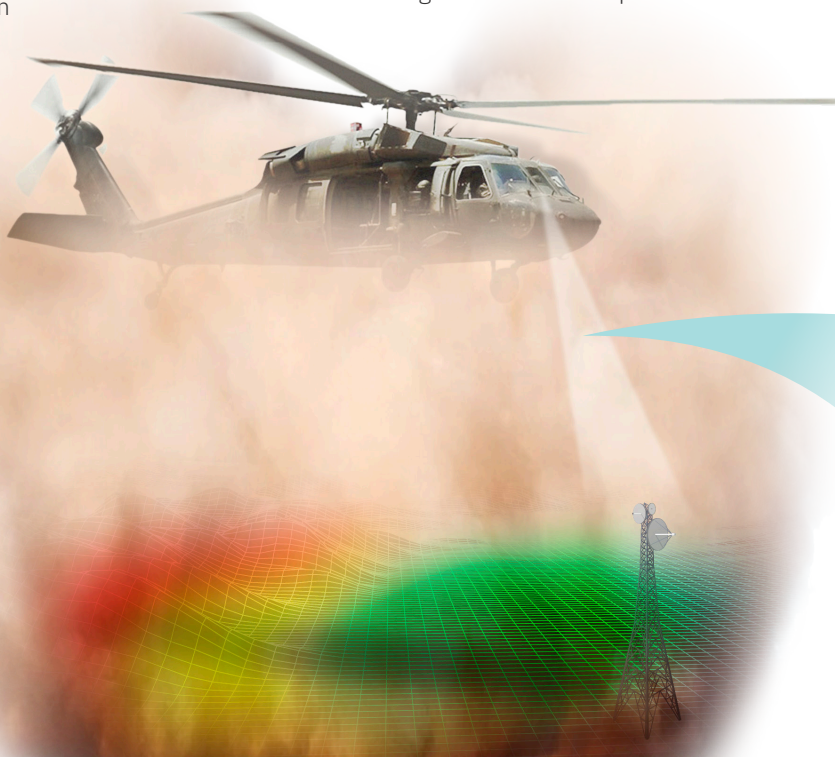
PRODUCT OVERVIEW

Degraded Visibility Landing System (DVLS) enhances pilots' situational awareness by providing a low-latency, binocular HMD augmented reality symbology including obstructions, threat data and synthetic terrain along with a high design assurance level primary flight display. Navigation data from mission planning databases, drift and flight cues and an intuitive landing zone display aid safe landings in various types of degraded environments. The open interface system allows for data fusion from various sources and

sensors, allowing completely passive DVE capability (fused EO/IR and symbols) or can be integrated with active sensing technologies such as RADAR or LIDAR.

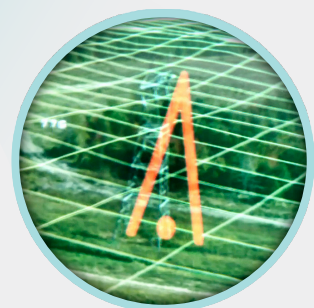
Automated boresighting and alignment, components with low size, weight and power and a simple fiducial sticker installation with no need for complex cockpit mapping make the system scalable to a wide variety of platforms.

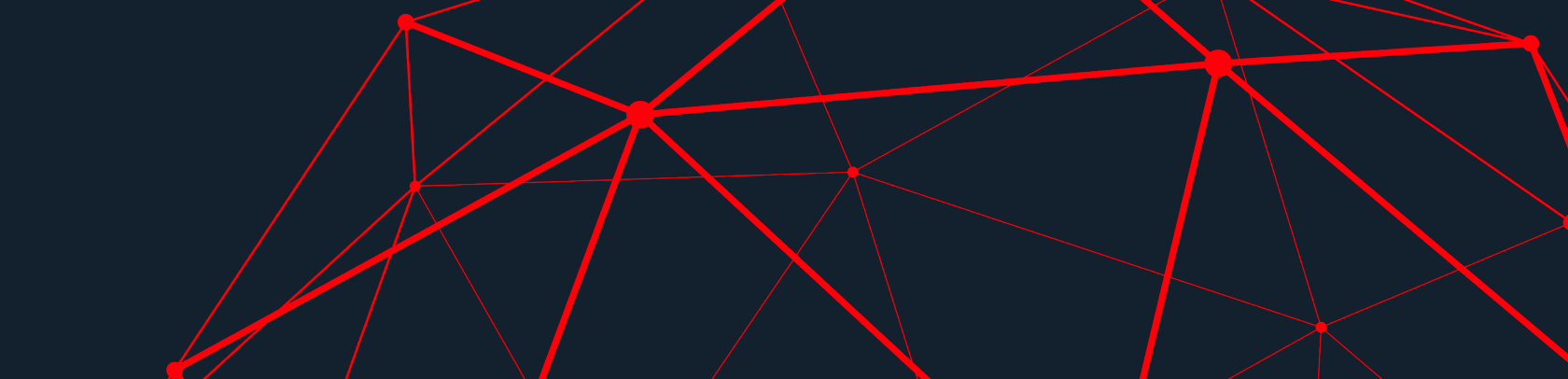
Additional options include a non-HMD version that can be retrofitted into existing cockpits and displays and interface with existing sensors and components.



Features & Benefits

- > **Low-latency architecture and software:** Our architecture optimizes the speed at which data is fused and delivered to the operator, which ensures accurate placement of symbols on real-world imagery, reduces blur and improves orientation awareness for pilots
- > **Minimized geospatial jitter:** The tight coupling of geospatial data with platform and HMD pointing information ensures symbols are accurate and locked to the underlying terrain features which improves pilot confidence and ability to land in degraded environments
- > **Simple design:** With only a few hardware elements, DVLS is easy to install, integrate and use. Auto-alignment and boresighting features ease pilot workload and speed time-to-flight





TECHNICAL FEATURES

- > Pointing accuracy < 5 mrad
- > Latency < 10 msec
- > Drift cues displayed at < 1kt horizontal
- > Drift cues displayed at < 100 fpm vertical
- > Streamlined hasty landing zone placement
- > Automated cockpit mapping and alignment
- > Baseline symbology based on U.S. Army BOSS/ICE standard
- > Automated boresighting
- > Pre-integrated with U.S. DoD Long Wave IR imager and WESCAM MX™-Series gimbals from L3Harris
- > Modular for easy installation



DVLS

POWERFUL, SIMPLE AND AFFORDABLE FOR SAFER LANDINGS

The L3Harris DVLS system is an easy to integrate, intuitive and effective augmented reality helmet mounted display system and fusion engine, ensuring successful mission accomplishment in degraded visual environments.

DVLS – Augmented Reality for Safer Landings

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