

- Full 24-hour, uninterrupted day/night operations
- Seamless interaction with standard/unmodified Night Vision Goggles
- Fully interchangeable between standard, unmodified helmets
- Common solution for both fixed and rotary wing
- Lowest procurement and life cycle cost
- Full MIL qualified
- Battle proven
- Simple retrofit or new production integration
- In full production now



SCORPION® HELMET MOUNTED CUEING SYSTEM

World's 1st full color Helmet Mounted Display System from Visionix™



SCORPION® Helmet Mounted Cueing System



The Scorpion HMCS from Visionix™, provides full-color, dynamic flight and mission data, projected directly and safely into the aircrew's line of sight via a large field-of-view, fully transparent, rugged, optical waveguide assembly. This capability allows the user to remain head-up and eyes-out of the cockpit with greatly enhanced real-time Situational Awareness (SA). The added dimension of full-color symbology and video imagery dramatically increases the user's ability to rapidly interpret and correlate vital SA information, resulting in lower task saturation and increased efficiency. In full service operation on U.S. Air Force A-10, F-16, and AC-130W aircraft, Scorpion has the battle-proven pedigree, demonstrated field performance, and provides ease of integration necessary for both forward-fit and retrofit applications—fixed and rotary wing. Scorpion is currently under Operational Utility Evaluation (OUE) and flight evaluation on numerous other programs and platforms. These activities relating to both international and domestic platforms confirm that government and industry alike now see Scorpion as the market benchmark HMD/HMCS product for both now and the foreseeable

ADVANTAGES

- Precise head-steered weapons and sensor cueing
- Full-color, dynamic conformal color symbology overlaid on the real world, clearly visible in all ambient lighting conditions
- Rapid target acquisition and hand-off to sensors and weapons
- Sensor video capability with full-color overlay symbol suite
- DTED, JTIDS and tactical type data display capabilities
- Seamless 24-hour operation / transition day-night
- Simple/Accurate bore sight procedure
- Rapid aircraft integration; No avionics bay LRUs
- Backward/Forward compatibility with standard head and life support gear, including: HGU-55/P, HGU-68/P, HGU-84/P, HGU-56/P, SPH-5, MBU-20/P, MBU-23/P, MBU-12/P, AN/AVS-6/9, JSAM, LEP and protective visors.
- Compatible with Clear/Glare/Yellow/LEP/Step-in visors, spectacles
- Developed and manufactured by helmet/PFE OEM
- System interchangeable between pilots, NOT one per pilot
- Lowest procurement cost and projected life cycle cost

FEATURES

- Supports full day/night transition missions
- Full 24-hour day/night capability; totally compatible with AN/AVS-9 NVGs and Panoramic Night-Vision Goggles (PNVGs)
- No interruption of symbology/video during NVGs attachment detachment
- 26x20 FOV full-color, high-resolution SVGA display
- Virtual HUD or Multi-Function Display (MFD) capability
- On-demand sensor video (EO/IR) display
- High-speed tracker with a full-spherical Field of Regard (FOR); choice of Hybrid Optical-based Inertial Tracker (HOBIT) or Magnetic tracker
- Lowest system latency/highest accuracy
- No cockpit mapping required with HOBIT tracker
- Minimal head-borne weight
- Low total system weight
- Low power consumption

MISSION SUPPORTABILITY USER FRIENDLY

- Programmable, compact Interface Control Unit (ICU) mounted in cockpit; no avionics bay intrusion
- ICU provides an in-cockpit, 16 GB removable data cartridge
- Ethernet or 1553 interface
- ICU provides aircraft power and battery backup to NVGs for less head-borne weight
- Military qualification 810D/461E/704A
- Ejection system compatible/Qualified HVI Safety Disconnect System

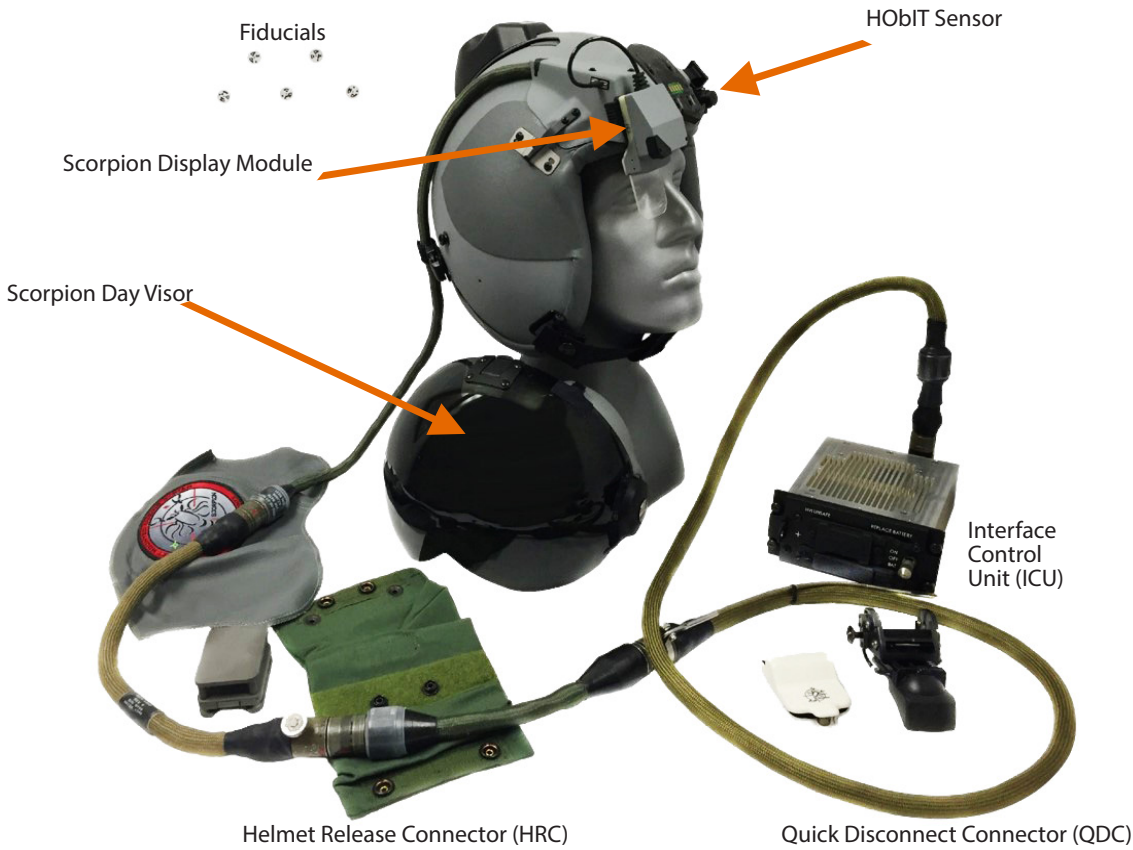
TECHNOLOGIES

- Lightguide Optical Element (LOE) waveguide technology
- Magnetic or Hybrid Optical-Inertial Tracker options available
- Fully programmable symbol generator allows Aircraft Integrator flexibility to define, re-program and implement both raster and vector symbols independently
- Full 24-bit color capability - Scorpion display can match head down display color philosophy
- Full 24-hour day/night capability; compatible with AN/AVS-9 Night Vision Goggles and Panoramic Night-Vision Goggles (PNVGs)
- Optional integrated, helmet mounted color camera available for post-flight mission debrief/BDA

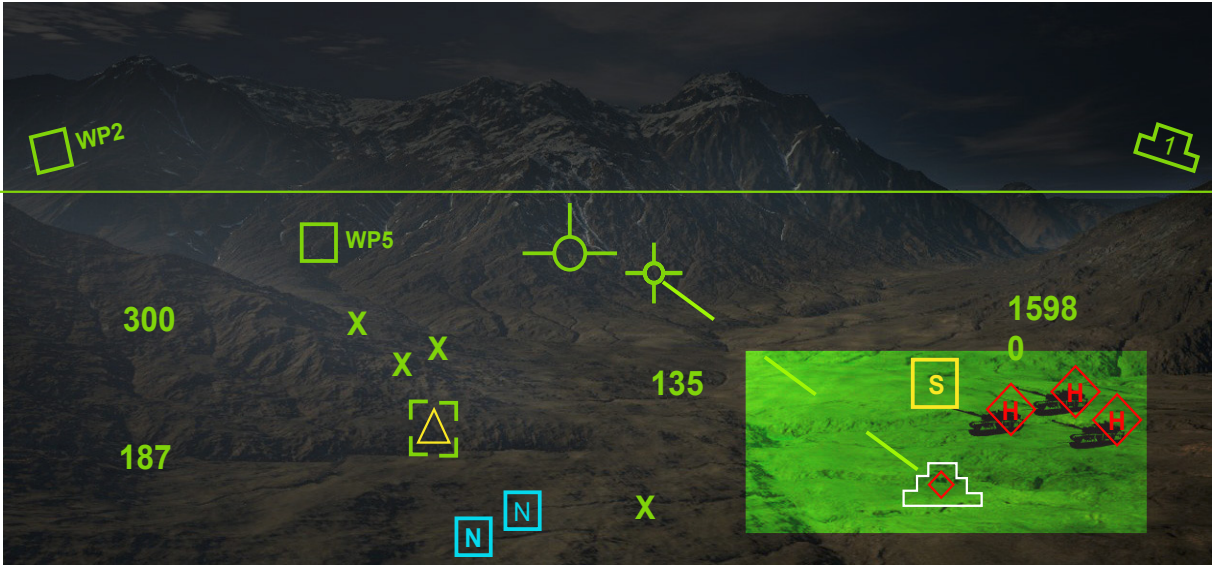
COMPONENTS

Integrates with all Flight Helmets

(System pictured below features HGU-55/P aircrew helmet. System is able to integrate with other flight helmets.)



SCORPION BATTLEFIELD VIEW - SIMULATED
(Color - Hypothetical Symbology Suite)



WORLD'S ONLY **FULL-COLOR**
HELMET MOUNTED DISPLAY (HMD)



360° FIELD OF REGARD