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Building a future we can all trust

Wide Augmented Situational Panoramic (WASP®) Binocular Helmet Mounted Display System

Next-Generation Aircrew Helmet Mounted Display (HMD) System

Thales' WASP wide field of view, binocular HMD supports combat aircrews operating enduring fleet platforms and advanced platforms, like Future Vertical Lift and next-generation rotorcraft.

WASP aligns with Modular Open Systems Architecture (MOSA) facilitate ease of platform integration, low impact upgrades for display enhancements, and simple software based capability insertion for future upgrades. WASP features high-accuracy, low-latency motion tracking technology and low sustainment costs.

Operational Advantages:

- Binocular, no boresight, auto-alignment, or auto-harmonization
- Day/Night/NVG compatible, full color, and OSA-aligned
- Adaptable to advanced/future digital night vision solutions
- MOSA compliant, simple integration into current architecture
- Supports advanced HMD computing solutions for increased processing and high Design Assurance Level (DAL) applications
- Compatible with the common Gentex HGU-56P helmet shell without any physical modification to the helmet shell or compromise of helmet shell integrity
- Agnostic and adaptable to various other helmet shells

The WASP lightweight and modular binocular HMD supports flight in Degraded Visual Environments (DVE). WASP's full-color HMD system is capable of displaying essential information to support day, night, and night vision goggle flight profiles, as well as "heads up, eyes out" profiles. Zero latency perceived during day/night WASP usage gives pilots a truly immersive experience and real-time updates. WASP displays terrain, aircraft performance, route, and EO/IR/DAS sensor data, and critical flight symbology. WASP also aligns with the host aircraft, so there is no need to boresight the HMD system. With WASP's alignment solutions, adjustments to the displays in flight will not affect alignment of the displays.

WASP uses digitized Hybrid Optical Inertial Tracking (HObIT) technology to more accurately track pilot head movement. Combined with full-color conformal symbology, augmented reality replicates the immediate environment. Compared to magnetic-based systems, WASP produces an unparalleled consistency of vision and accuracy to maintain situational awareness in even the harshest environments.

MOSA compliance ensures that WASP can evolve over time as mission and capability requirements change, and low design complexity supports the ability to fix the system in the field, minimizing the spare parts logistical tail.

Specifications are subject to change without notice.

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