



PDAS

Pilotage Distributed
Aperture Sensor System

PDAS

Lockheed Martin. Your Mission is Ours.®

INTEGRATED SENSOR SOLUTION FOR FUTURE AND ENDURING ARMY ROTORCRAFT

Lockheed Martin's Pilotage Distributed Aperture Sensor (PDAS) system is an integrated sensor suite that provides spherical pilotage imagery, sensor fusion and threat detection to Army rotorcraft aircrews.

PDAS delivers real-time, multi-spectral 360-degree imagery to multiple users via infrared sensors embedded around the aircraft. Warfighters in the cockpit and cabin or other aircraft can simultaneously and independently perform tasks ranging from pilotage and assessing threats ahead of an insertion to coordinating landing zone operations.

Threats pop up with little warning when pilots are flying nap of the earth. PDAS features a threat detection capability tailor-made for the rotorcraft flight environment. Compact sensors minimize false alarm rates and weight added to the aircraft. Advanced algorithms deliver rapid missile warning, automatic target recognition and hostile fire detection to aircrews.

The open architecture processor (OAP) stitches sensor imagery into a seamless sphere and provides sensor fusion and threat detection. Sensor fusion technology blends data from multiple sensors to restore the pilot's situational awareness in degraded visual environments (DVEs) like fog and brownout.

PDAS plots DVE data in a persistent, cloud-based 3-D world space that updates in real time across networked friendly forces. This enables aircrews to see pilotage threats like power lines picked up in earlier fly-overs.



Flight imagery from PDAS' first tactical installation fuses aircraft and DTED data with 360-degree sensor imagery to provide situational awareness and tactical information.



PDAS's sensors, OAP and user interface are part of a sensor suite that will enable Army aviators to own any environment, detect and counter any threat—and return home safely.

The world map aligns sensor imagery with digital terrain elevation data (DTED) to support navigation in GPS-denied zones. It also accepts inputs from multiple manned and unmanned platforms and populates the world model with operational data like targets, threats and blue team assets. When a pilot or drone sees something tactically relevant on the battlefield, everyone on the network sees it.



PDAS will deliver real-time 360-degree pilotage imagery, sensor fusion and threat detection to enhance situational awareness and aircrew survivability.

PDAS BENEFITS

- Sensor suite amplifies the advantages of rotorcraft speed by dramatically increasing survivability against peer and near-peer adversaries.
- Intelligent sensor processing acts as a force-multiplier while decreasing pilot workload.
- Open-architecture approach provides a sensor ecosystem that supports commonality, innovation and rapid upgrades to address emerging threats.
- The OAP consolidates processing nodes, decreasing equipment weight while offering increased capability.

Lockheed Martin Missiles and Fire Control
Business Development
Phone: 407-356-9990
www.lockheedmartin.com/mfc