L3HARRIS™
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THE NEW OPTION FOR MODERN THREATS – SOAR™

Scalable Open Architecture Reconnaissance (SOAR) is the ground-breaking, intelligence, surveillance and reconnaissance (ISR) solution from L3Harris Technologies and General Atomics Aeronautical Systems, Inc. (GA-ASI). SOAR integrates L3Harris' industry leading full-band signals intelligence (SIGINT) capability with a medium-altitude long-endurance GA-ASI Predator B wing-mounted pod to offer unparalleled options for warfighters in the ISR domain. SOAR provides significant mission expansion against modern threats and a new dimension for remotely piloted aircraft systems.

With SOAR, L3Harris continues its mission to develop a range of scalable, SIGINT solutions for strategic and tactical ISR airborne applications. Our family of systems (FoS) approach to SIGINT payloads allows us to offer capabilities across all domains. Within the airborne domain, we are focused on both medium-altitude and high-altitude capabilities. Current capabilities include podded and integrated applications ranging from business jet class Strategic Airborne ISR to small, manned aircraft as well as unmanned aircraft.

FULL SPECTRUM ESM/SIGINT PAYLOAD FOR THE PREDATOR B

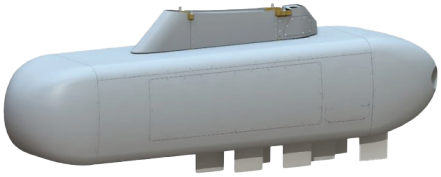
A NEW DIMENSION FOR REMOTELY PILOTED AIRCRAFT SYSTEMS

THE SOAR POD OFFERS FULL-BAND SIGINT FROM A SINGLE POD, PROVIDING POWERFUL MISSION CAPABILITIES OVER A BROAD FIELD-OF-VIEW

SOLUTIONS FOR TODAY AND TOMORROW

Offering new options for current and future Predator B weapons systems customers, SOAR is a key capability for the U.S. and its allies. SOAR addresses the most urgent and compelling needs for Predator B electronic support measures (ESM)/SIGINT. L3Harris and GA-ASI jointly invested to develop and integrate a deployable prototype using the certified Standard Payload Interface Design and Integration (SPIDI) pod.

- Enables standoff SIGINT collection from Predator B
- Draws significant heritage and capabilities from L3Harris' strategic fixed-wing ISR and SIGINT FoS
- Predator A Block 1, Predator A Block 5, and Predator B compatible
- High Technology Readiness Level (TRL). Flight testing (airworthiness, calibration, and verification) completed in 2019. Oconus operational evaluation (OPEVAL) successfully conducted 3Q20 through 1Q21. The OPEVAL validated the ability to conduct long-range surveillance from a persistent/low-cost unmanned aircraft system, supported Artificial Intelligence and Machine Learning (AI/ML) and Advanced Battle Management System (ABMS) onramp collection, and included sorties via remote split operations that allowed CONUS based aircrews to operate and control the aircraft and payload flying overseas.

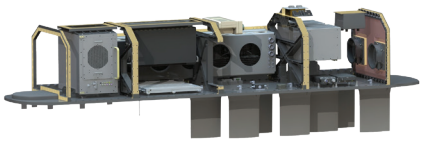


POD FAIRING ASSEMBLY

- Aero fairing with thermal and maintenance features
- Antenna radomes
- Modular direct-mount pylon
- Certified super-SPIDI pod

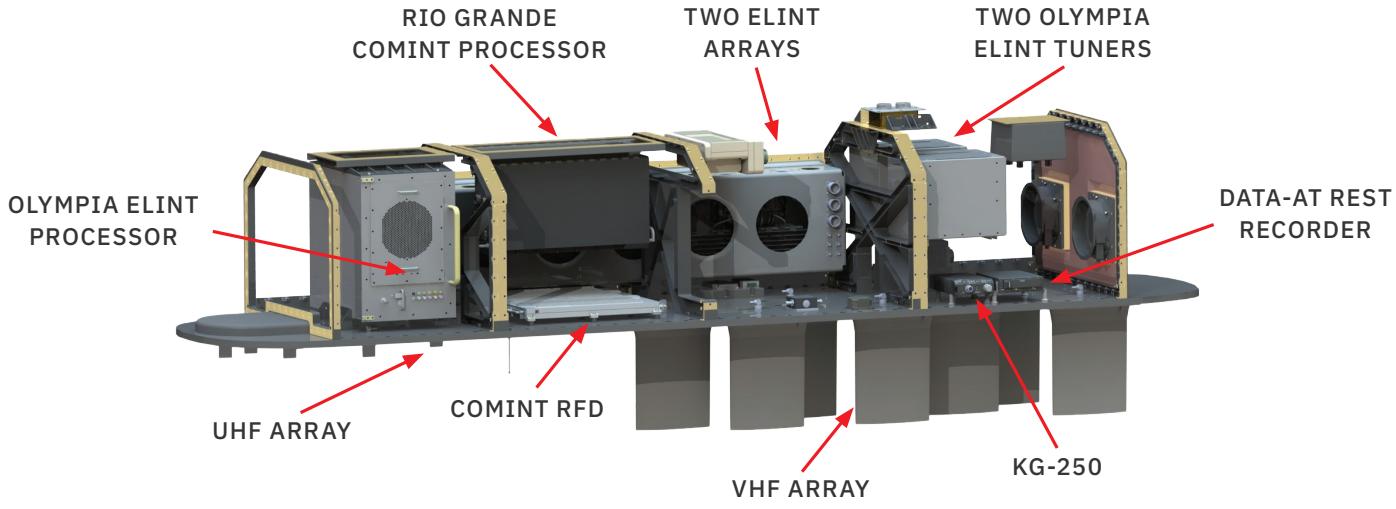
INTEGRATED STRUCTURE ASSEMBLY

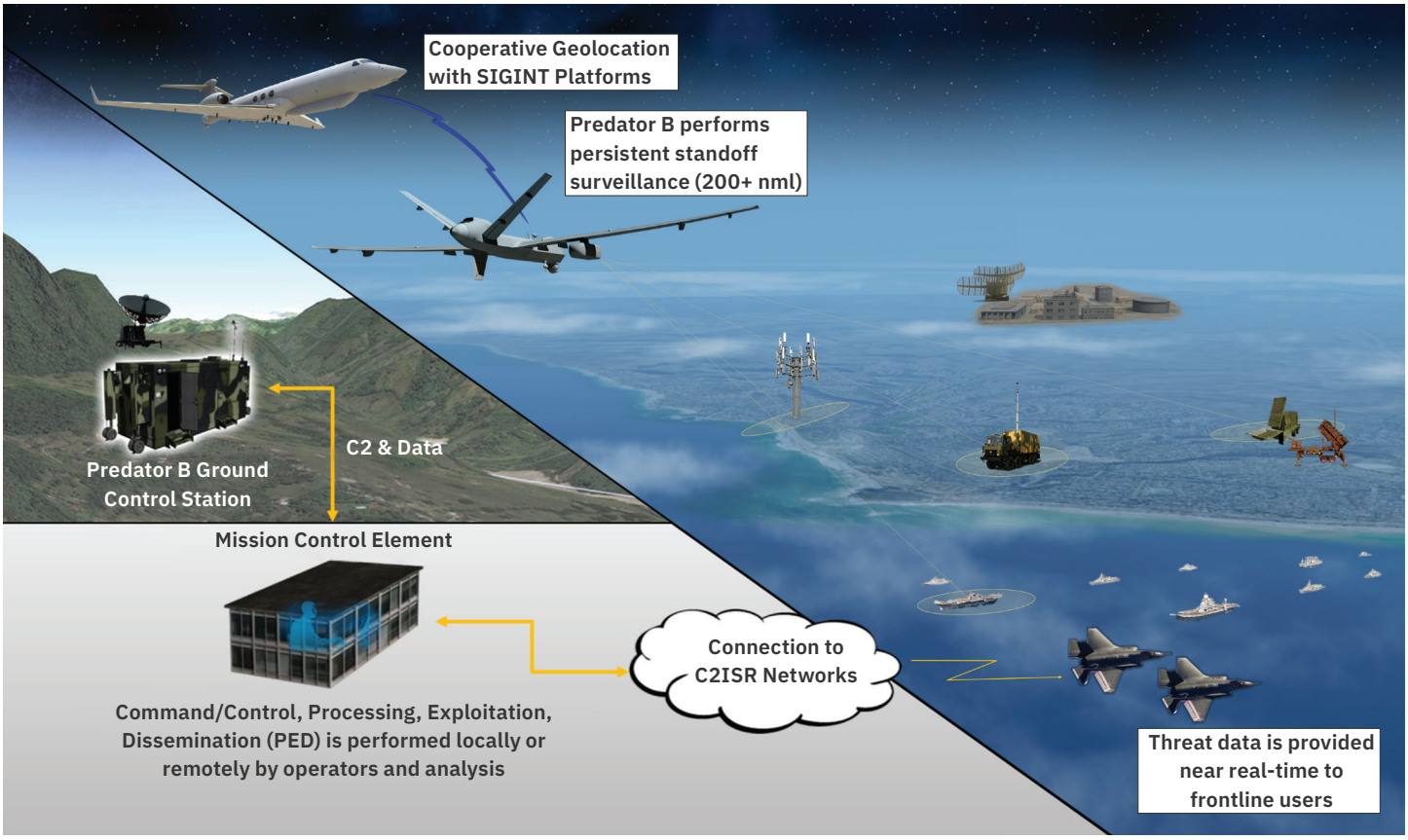
- Mechanical integrating structure
- Communications intelligence (COMINT) antenna panel/ground plane
- Electromagnetic interference isolation of apertures from payload electronics



SIGINT SUBSYSTEM ASSEMBLIES

- Primary COMINT and electronic intelligence (ELINT) sensors
- Modular software & hardware
- Accessible sub-assemblies for maintenance





THE NEXT STEP IN STRATEGIC ISR

L3Harris and GA-ASI have jointly developed SOAR, which leverages FoS SIGINT expertise and offers significant mission expansion for Predator B operations against threats in new operating domains. SOAR is a groundbreaking solution addressing the need for long-range surveillance from persistent/low-cost unmanned aircraft systems (UAS). SOAR has completed verification testing, operational evaluation and is ready for procurement.

- Open architecture with commercial-off-the-shelf/government-off-the-shelf (COTS/GOTS) standards
- Collaborative operations
- Cross-cue to on-board sensors
- Real-time remote operations/secure mission data storage
- Designed for integration into a distributed, enterprise processing, exploitation and dissemination (PED) architecture

PED ARCHITECTURE

- Supports multiple local & remote users
- Minimizes datalink footprint

With ever-dynamic threats like those identified within the SIGINT framework, keeping up with the threat relies upon an open mission architecture which allows the system to be rapidly modified and upgraded. We have achieved this with our reconfigurable software architecture (RSA) which focuses on a scalable software approach providing commonality across the SIGINT domain. This is critical for not only keeping systems current in an ever-changing collection environment, but it also reduces logistics and sustainment costs to support a variety of different platforms. We are platform agnostic and concentrate on true “aperture-to-enterprise” solutions that are common regardless of the actual platform.

L3HARRIS TECHNOLOGIES

L3Harris is an industry leader in the rapid delivery of innovative integrated solutions for the global ISR market. We are leading and leaning forward to become the nation’s premier provider of critical mission air/ground ISR and strategic communications, solving the most critical worldwide security and stability problems.

SOAR_Sell Sheet_072021_Rev C

The SIGINT systems capabilities and performance described in this briefing describe a capability for new mission systems and are not representative of current performance or capability of operational missions systems. Systems described herein are subject to USG approval.

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers’ mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

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