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ASIO

AIRBORNE SURVEILLANCE, INTELLIGENCE &
OBSERVATION SOLUTIONS

ASIO FAMILY OF SOLUTIONS BY BIRD AEROSYSTEMS

FULLY OPERATIONAL
WITH OVER **20,000 Km**
OF ASSETS & BORDERS
PROTECTED

**OVER 30 DELIVERED
MISSION PLATFORMS**
AIRBORNE, GROUND
AND MARITIME

TURN KEY SOLUTION
FROM CONCEPT TO
CERTIFICATION &
DEPLOYMENT



COST EFFECTIVE
OVER **\$500M** IN
CUSTOMER SAVINGS BY
EFFICIENT DEPLOYMENT
OF ASSETS

IDEAL FOR
**MARITIME
AND GROUND
SURVEILLANCE**



**TASK FORCE
DEPLOYMENTS**



HIGH AVAILABILITY
ENSURES CONTINUOUS
AIRCRAFT OPERATIONS

**AIRCRAFT
INDEPENDENT**
INSTALLED ON FIXED
WING AND HELICOPTERS

**WORLD WIDE
CUSTOMER
SUPPORT**



EVER VIGILANT

ASIO COMBAT PROVEN AND RELIABLE ISR SOLUTION IS AN IDEAL SOLUTION FOR MARITIME AND GROUND SURVEILLANCE, SEARCH AND RESCUE, PATROL AND MONITORING MISSIONS.

The ever-growing threats to national security are increasing Intelligence, Surveillance and Reconnaissance (ISR) requirements. Customers across the globe looking for a comprehensive, end-to-end, yet cost-effective, airborne surveillance and monitoring solution.

To meet these requirements, BIRD Aerosystems has developed the Airborne Surveillance, Intelligence and Observation (ASIO) solution providing users with a combat proven and reliable ISR solution that is ideal for maritime and ground surveillance, search and rescue, patrol and monitoring missions.

BIRD Aerosystems offers a unique Task Force approach as the basis of the ASIO solutions, that leverages an in-depth ISR mission know-how, advanced mission management system, and extensive experience in effectively integrating airborne, naval and ground segments into a combined and effective task force.

BIRD's unique operational know-how and experience enables the delivery of a compelling, comprehensive and highly flexible solution, custom-tailored to customer's specific operational requirements.

Finally, BIRD Aerosystems offers its customers a turn-key solution, including all the design and engineering services required for the successful implementation of the program. These services include design, installations and airworthiness certification of the ASIO aircraft as well as modifications and installations on ground and naval platforms and setup of advanced command and control centers that manage the entire task force. The result is a comprehensive, ready to be used, turn-key solution immediately available for operational use.

ASIO KEEPING YOU FULLY INFORMED

ASIO PROVIDES AN INTEGRATED SOLUTION SPECIFICALLY TAILORED TO MEET DIVERSE OPERATIONAL NEEDS-EFFICIENTLY AND COST-EFFECTIVELY.

ASIO uses state-of-the-art surveillance and monitoring sensors along with advanced communication equipment all tailored for the required mission and fully integrated with BIRD's advanced mission management system (MSIS).

MSIS creates a unified situational awareness picture within the entire task force (air, ground and naval segments) while integrating with the additional Command and Control systems and sensors to enable a timely and effective decision making process.

ASIO SUPPORTS THE FOLLOWING MAIN MISSIONS:

MARITIME PATROL

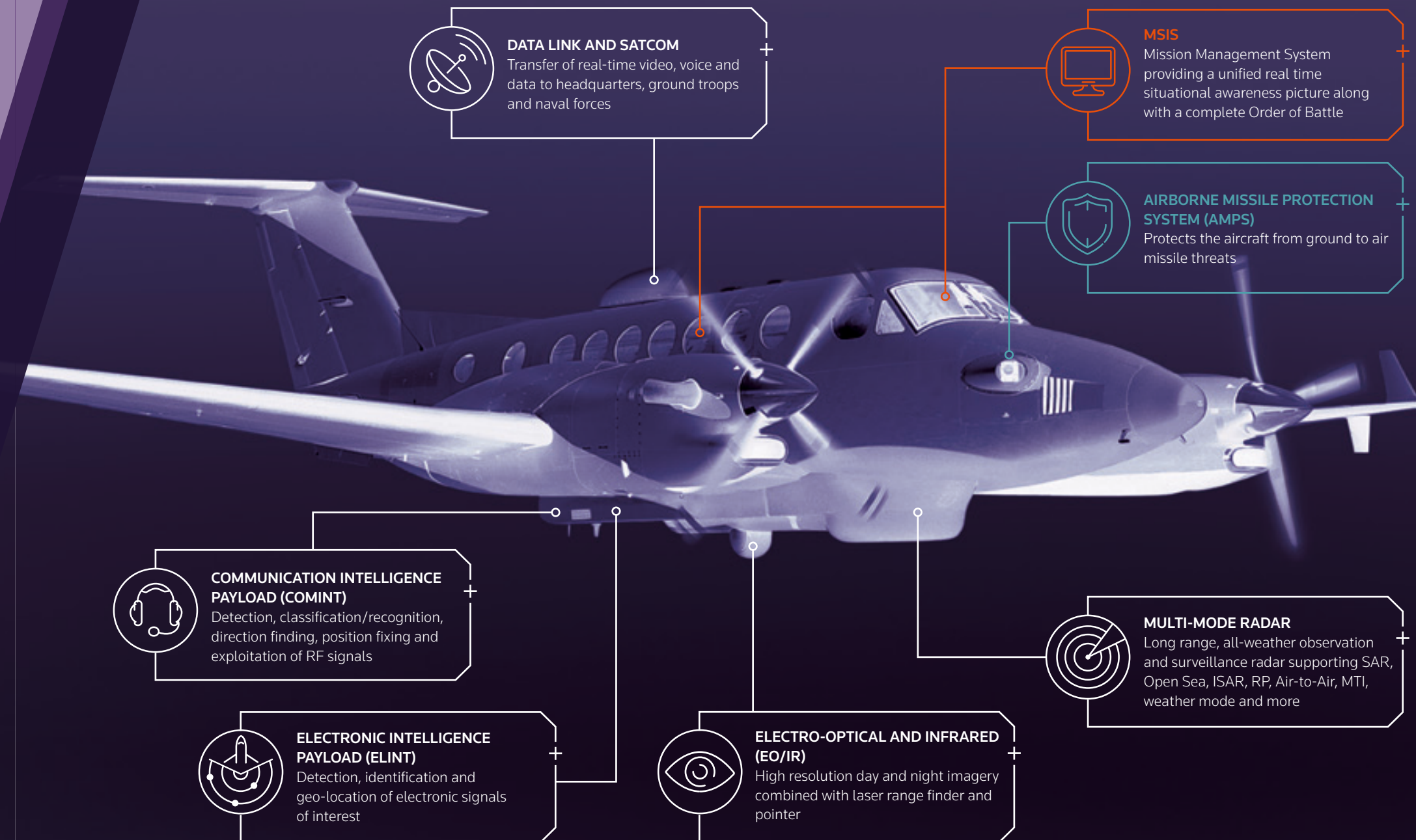
Surveillance operations in the maritime domain are challenging because of the large and highly dense environment. ASIO maritime solution provides a comprehensive multi-layered solution that continuously monitors and alerts of illegal activities while using the ASIO aircraft to identify and finally incriminate the suspected vessel in the most efficient and cost-effective manner.

GROUND SURVEILLANCE

Ground surveillance imposes a massive challenge of detecting suspicious targets in a vast and diverse terrain. The ASIO Ground Task Force provides persistent surveillance, automation and tracking of targets through the use of the ASIO surveillance aircraft along with multiple data sources integrated into a unified situational picture.

HOMELAND SECURITY (HLS) & POLICE SURVEILLANCE

Police and HLS are expanding their airborne missions to enable surveillance, traffic enforcement, and searching for criminal offenders in a cost-constrained environment. ASIO HLS solutions enable police and HLS forces to combine multiple airborne and ground segments all aimed at collecting and sharing mission data and enabling a timely and effective response to support diverse and continuously changing missions.



ASIO MARITIME SURVEILLANCE

THE ASIO MARITIME SOLUTION PROVIDES CUSTOMERS WITH AN INTEGRATED AIRBORNE-GROUND-NAVAL TASK FORCE SOLUTION. THE SOLUTION FACILITATES DIVERSE OPERATIONAL MISSIONS INCLUDING MARITIME AND COASTAL SURVEILLANCE, PATROL AND SURVEY OF BORDERS, STRATEGIC ASSETS PROTECTION AS WELL AS EXCLUSIVE ECONOMIC ZONE (EEZ) MONITORING CAPABILITIES.

The ASIO fully integrated solution starts with Pre-mission planning by BIRD's Ocean Surveillance, Control and Reconnaissance (OSCAR) system that integrates multiple data sensors into a multi-layered intelligence picture providing threat classification for each of the maritime targets in the area of interest.

The target information is then loaded to the MSIS airborne mission management system that will manage the flight while integrating the information from the onboard sensors such as the Radar, EOP, COMINT, AIS and create a unified maritime picture.

The information collected by the ASIO aircraft is distributed in real time within the complete Task Force including naval ships, command and control centers and other related units that are able to effectively intercept and neutralize the detected threats.



SOLUTION **BEST TAILORED**
TO YOUR MISSION REQUIREMENTS

BIRD's ASIO MARITIME SURVEILLANCE KEY FEATURES AND BENEFITS:

Maritime Task Force
combining airborne, naval and
ground units

Pre-mission threat
classification using multiple
data sources (AIS, VMS,
OSINT, Radar)

Advanced maritime sensor
suite to support diverse
operational requirements

In-house mission
management system directs
all of the mission phases

Platform agnostic solution

Turn-key program delivery

Proven and mature solution

Delivered successfully to
customers worldwide

ASIO GROUND SURVEILLANCE

GROUND SURVEILLANCE MISSIONS REQUIRE LARGE-AREA SCANNING CAPABILITY TO DETECT, TRACK AND RECOGNIZE UNAUTHORIZED INTRUDERS SUCH AS HOSTILE, CRIMINAL AND ILLEGAL ENTITIES. REGARDLESS OF THE TERRAIN, MISSIONS OF SECURING GROUND INFRASTRUCTURE AND NATIONAL BORDERS HAVE BECOME INCREASINGLY TRICKY REQUIRING FLEXIBLE, HIGH-PERFORMANCE, MULTI-SENSOR SYSTEMS, INSTALLED AND OPERATED FROM A VARIETY OF PLATFORMS.

BIRD's ASIO ground surveillance system provides customers with an integrated aerial-land Task Force. By integration of multiple ground based and airborne sensors, ASIO detects and tracks possible terrorist activity, terrain changes and movements of unauthorized personnel while coordinating the ground forces responding to these threats.

The ASIO aircraft patrols and surveys over strategic assets and areas of interest and upon detection of a suspected threat, relays the detection location, live video, and operational data to the Task Force for further tracking and to the HQ for real-time and effective event management.

ASIO provides a defense-in-depth, layered approach preventing persons or items from illegally accessing ground assets and sensitive infrastructure while leveraging its task force strength by employing airborne and ground assets for the interception of the suspected targets on the ground.



NO MATTER WHAT YOUR ISR MISSION
MAY BE, **ASIO HAS YOU FULLY COVERED**

BIRD ASIO GROUND SURVEILLANCE KEY FEATURES AND BENEFITS:

Complete Task Force solution combining airborne and ground units

High Mission Effectiveness—solution designed by experienced mission specialists

Advanced ground surveillance sensor suite for diverse operational requirements

BIRD's MSIS mission management system creating a unified situational awareness picture

Multi-mode and versatile solution

Platform agnostic solution

Turn-key program delivery

Proven and mature solution

Delivered successfully to customers worldwide

ASIO

MISSION MANAGEMENT SYSTEM - MSIS

BIRD'S EXPERIENCE IN OPERATIONAL C4ISR MISSIONS PROVIDES THE INSIGHTS AND EXPERIENCE NECESSARY TO BUILD MSIS AS THE ALL-AROUND MISSION MANAGEMENT SYSTEM – PROVIDING A COMPREHENSIVE, UNIFIED, REAL-TIME SITUATIONAL AWARENESS PICTURE WITHIN THE COMPLETE MARITIME OR GROUND TASK FORCE.

BIRD's MSIS is the heart of the ASIO solution as it collects and processes vast amounts of information integrating the intelligence process with aerial, ground and maritime surveillance, target acquisition, data distribution and reconnaissance tasks. This information is then automatically classified and clearly displayed using advance data fusion algorithms with an easy-to-use and intuitive human-machine interface.

MSIS addresses all the different aspects of the mission and integrates with BIRD's pre-mission analysis tools, e.g. OSCAR, that enables efficient mission planning and force allocation. The system reduces mission crew workload by display and operation of essential aspects of the mission at any given time, as well as complex automated processes enabling the crew to complete the detection and classification of only the relevant targets efficiently.

Finally, MSIS offers real-time, secure data exchange between the ground, maritime and airborne operators as well as interoperability with other command and control systems to support real-time and effective decision making.



ASIO PROVIDES YOU WITH THE ACTIONABLE INTELLIGENCE YOU NEED, **WHEN YOU NEED IT**

MSIS MAIN CAPABILITIES AND ADVANTAGES:

- Management of all mission phases (planning, execution, debriefing)
- Provides data distribution within the complete Task Force (Air/ Ground/ Naval)
- Real-time management and automatic activation of sensors
- Real-time data collection, correlation and target analysis
- Smart organized display of layered information
- Flexible definition of Flight and Mission plan
- Dedicated Sensor Control and Display
- Live and recorded playback of mission information
- Platform agnostic solution

TURNKEY SOLUTION

BIRD Aerosystems delivers a complete turnkey program by providing added value services from systems design, installation, and certification to long-term maintenance support, logistics support and MRO services.

Our dedicated in-house platform engineering group can deliver rapid, flexible solutions that will ensure the optimal deployment of the ASIO solution on any platform type (aircraft, naval ship, vehicle and C&C) while meeting the most demanding customer requirements and schedules.

By performing these services in-house, BIRD can ensure the highest level of standards along with a tailored solution that is tightly integrated with the customer's aircraft and mission sensors.

BIRD draws from an impressive track record of numerous ASIO programs, delivering flexible solutions for both our proprietary airborne platforms as well as third-party systems all provided at the highest level of quality assurance and standards.



MARITIME MISSION



GROUND MISSION



ASIO UNMATCHED REAL-WORLD EXPERIENCE

ASIO boasts a proven track record being used by numerous customers around the world. The ASIO solution has been in long-term, continuous and successful operation by advanced armed forces protecting their borders and national assets.

Built upon decades of active operational C4ISR flight experience, the ASIO solution was designed and built with the end in mind: to provide our customers with a fully customized and operationally flexible C4ISR solution.

Our ASIO solution has been delivered to the satisfaction of the most demanding customers all over the world. We look forward to bringing it to you.

