

HENSOLDT Kalætron Integral

From signals to actionable intelligence

The importance of the electromagnetic spectrum in a changing world

Modern conflicts are characterised by a high density of complex electromagnetic activities at overlapping frequency ranges. Detecting and analysing electromagnetic emissions comprehensively and swiftly is essential to achieve a true intelligence picture. This helps turn received signals into actionable intelligence when and where it is needed. Signals Intelligence (SIGINT) plays a critical role in predicting and preventing threats by connecting the dots between a

variety of often misleading and contradictory information. World-leading airborne SIGINT systems enable forces to understand the electromagnetic order of battle, including position and movement. This results in the ability to implement effective countermeasures and increase the survivability of own forces.

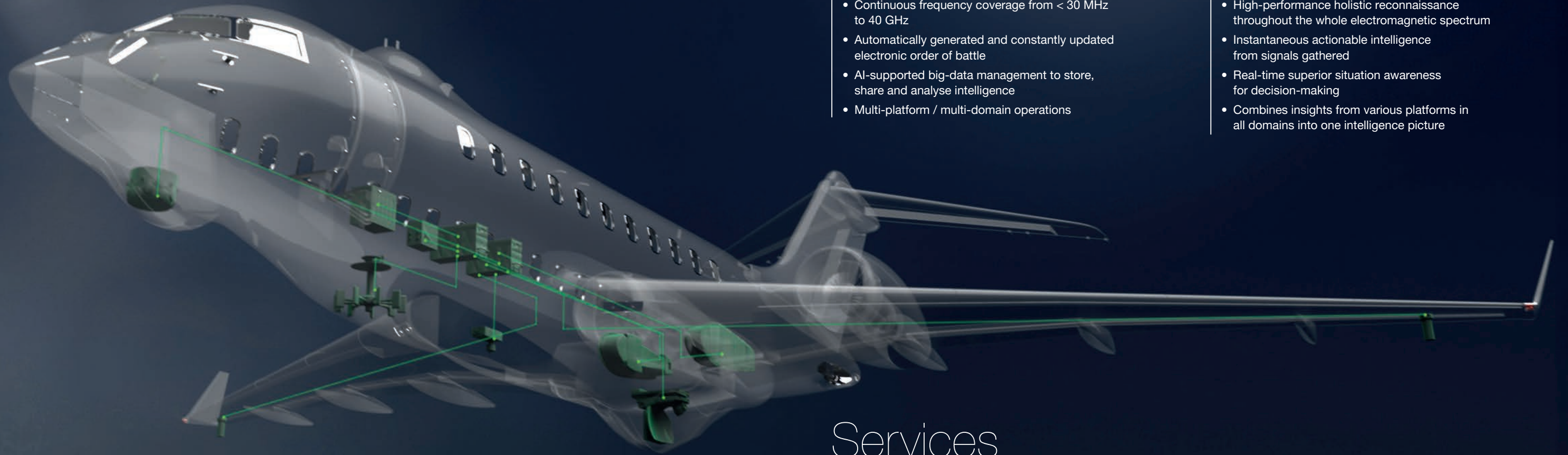
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HENSOLDT's airborne SIGINT solution provides a comprehensive strategic asset for wide-area reconnaissance. It is designed to master the challenges posed by today's congested and contested electromagnetic spectrum. Kalætron® Integral seamlessly integrates intelligence gathered from both radar signals (ELINT) and communication signals (COMINT). This holistic turnkey SIGINT solution provides unparalleled performance across the entire electromagnetic spectrum.

The system's advantage is rooted in its unique architecture, which enables the simultaneous and interconnected execution of COMINT and ELINT missions using shared resources. The system features exceptional accuracy, high sensitivity, a broad frequency

range and extended time on station. During missions, the combination of superior altitude and long range enables the system to cover vast areas at a safe distance from potential threats.

Kalætron Integral has the ability to process and analyse all information collected via its big-data-management software. The highly automated workflows are powered by machine learning and AI algorithms, which accelerate the decision-making process while reducing the workload of operators. These capabilities are essential in providing armed forces and governmental authorities with a constantly evolving view of the electromagnetic order of battle.



Features

- Integrated automatic COMINT and ELINT capabilities
- Continuous frequency coverage from < 30 MHz to 40 GHz
- Automatically generated and constantly updated electronic order of battle
- AI-supported big-data management to store, share and analyse intelligence
- Multi-platform / multi-domain operations

Benefits

- One holistic SWaP-C-optimised sensor suite
- High-performance holistic reconnaissance throughout the whole electromagnetic spectrum
- Instantaneous actionable intelligence from signals gathered
- Real-time superior situation awareness for decision-making
- Combines insights from various platforms in all domains into one intelligence picture

Services

Optimal performance and services over the entire lifecycle of Kalætron Integral for the purpose of staying operational:



Maintenance, Repair and Overhaul

Technical Assistance

Training Services

Supportability Engineering

Performance Monitoring

Simsphere® Simulation Solutions

About HENSOLDT

HENSOLDT is a German champion in the defence industry with a leading position in Europe and global reach. Our mission is "Detect and Protect".

It motivates and drives our employees to pioneer technologies that serve to protect people and national interests.

A perfect match: Kalætron Integral and Bombardier's Global 6000 series

Bombardier's Global 6000 series is the ideal platform for a SIGINT aircraft. It incorporates maximum altitude, long flight duration and ideal antenna placement possibilities. The ergonomic and comfortable cabin layout is designed to provide a highly productive environment for long missions. It offers a comfortable, low-noise and climate-controlled interior. These elements form the basis for mission success.

Aircraft Features

- Long endurance missions
- Optimised aircraft-shape
- Optimised ergonomic cabin layout including crew rest area
- Civil platform and logistics for optimised life cycle costs and availability
- Flight level up to 51,000 ft

Aircraft Benefits

- 24/7 coverage of the area of interests
- Maximised surveillance capabilities
- Highly efficient operators to provide maximum mission efficiency
- Worldwide maintenance and service network
- The combination of a high ceiling with an outstanding detection range leads to "theatre-area" reconnaissance from a safe distance

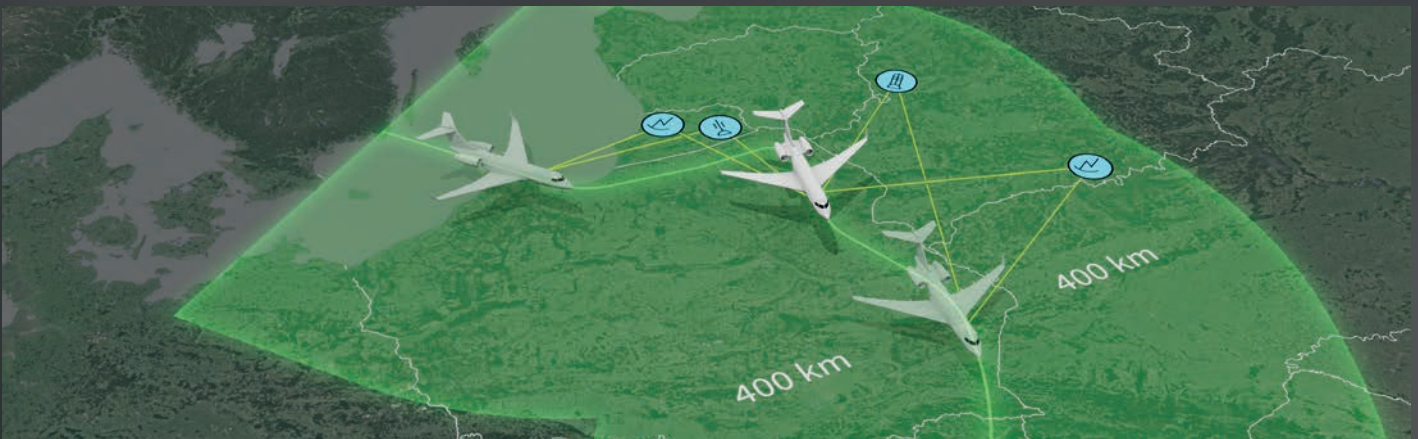
The Kalætron Integral SIGINT suite adds world-leading sensors to ensure situational awareness in real time. HENSOLDT's sensor suite on a Global 6000 aircraft combines the best of both worlds, providing unparalleled capabilities. Furthermore, the system combines high availability and performance with low life cycle costs.



SIGINT aircraft based on Bombardier Global 6000



Ergonomic operator stations with intercom



The coverage of large areas enables reconnaissance results deep into hostile territory