# OPTIMISING AIRBORNE ISR MISSIONS

Intelligence, surveillance, and reconnaissance (ISR) missions are an increasingly important part of government operations worldwide. DEA Aviation Ltd—a UK-based company specialising in manned airborne ISR missions—capitalises on SES-enabled near real-time connectivity to enhance operational efficiency, ensuring customers such as Frontex can access and action the right information at the right time.

THE IMPORTANCE OF AIRBORNE ISR

Information gathered and relayed via airborne ISR missions benefit a range of government operations.

- Border patrol and protection
- Tracking and regulating illegal activity
- Environmental monitoring
- Humanitarian assistance and disaster response
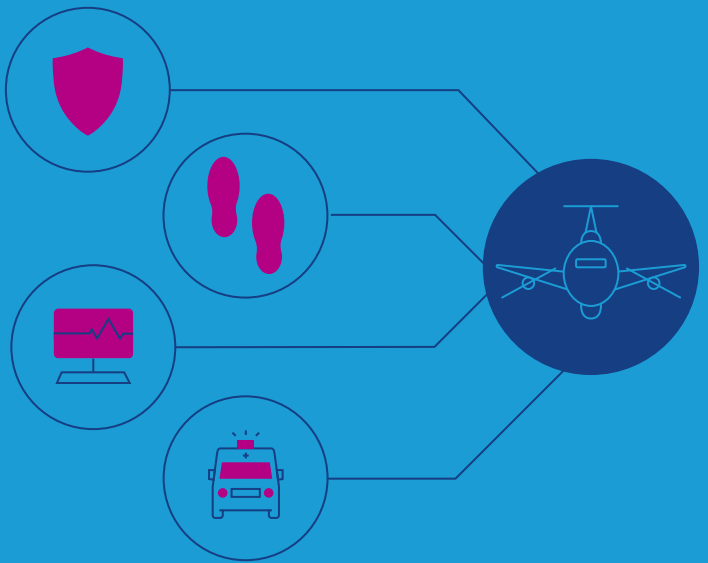
COMPLEXITIES OF DELIVERING ISR SOLUTIONS

GROWING DEMAND FOR DATA
ISR missions generate and relay large volumes of data from multiple sensors.

ADVANCES IN SENSOR TECHNOLOGY
Improved sensors capture more data, requiring high-throughput connectivity.

NEED FOR GLOBAL COVERAGE
Near real-time connectivity over a wide coverage area is essential to beyond line of sight surveillance missions.
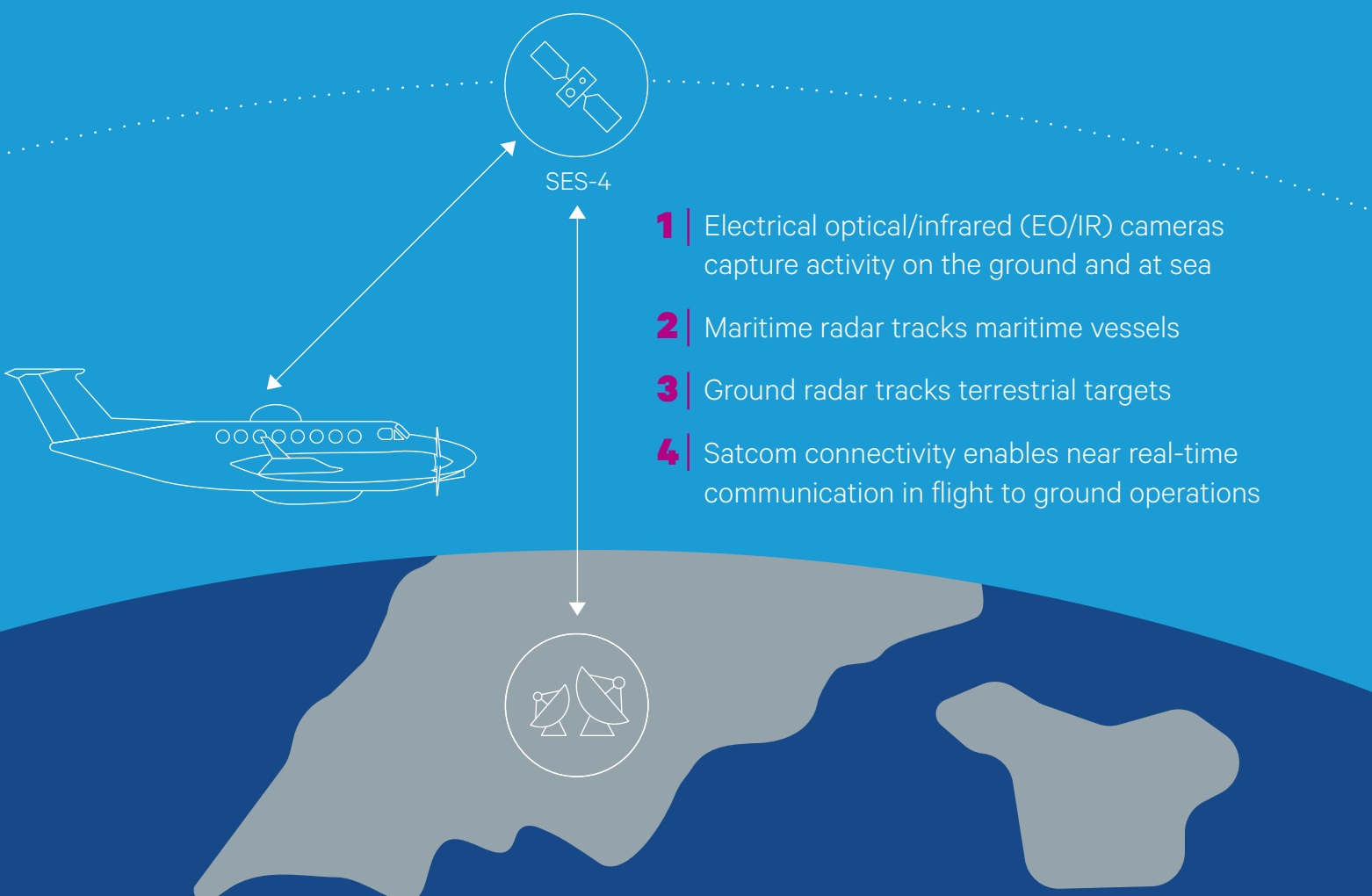
ADOPTION OF CLOUD-BASED APPLICATIONS
Digital transformation initiatives drive the need for direct connectivity to the cloud.

DEA AVIATION'S SUITE OF SENSORS

To meet its customers' growing demand for near real-time data, DEA Aviation deploys multiple high-fidelity sensors.

SES-4

1 | Electrical optical/infrared (EO/IR) cameras capture activity on the ground and at sea

2 | Maritime radar tracks maritime vessels

3 | Ground radar tracks terrestrial targets

4 | Satcom connectivity enables near real-time communication in flight to ground operations

MEETING DEA AVIATION'S UNIQUE CONNECTIVITY REQUIREMENTS

SES's bespoke solution ensures DEA Aviation can access near real-time connectivity within the desired coverage area, allowing it to gather and deliver large volumes of data from multiple sensors—including high-definition videos and high-resolution images.

DEA

OUR SERVICE OFFERING
- Currently hosted on SES-4
- 24/7 MOC and SMOC service support
- Global GEO service coverage via SES fleet
- High-throughput, low-latency connectivity via SES MEO fleet
- Between 1Mbps and 20Mbps, dependent on terminal

O3b mPOWER

REFRAMING THE FUTURE OF ISR

Our next-generation Medium Earth Orbit (MEO) communications system, O3b mPOWER, will continue to support ISR missions—even as their needs grow and evolve.
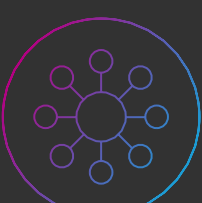
NEW LEVELS OF SCALE
High-throughput services scalable to multiple gigabits per second support increasingly large volumes of data generated by sensors.

NETWORK RESILIENCE AND SECURITY
Jamming and interception resistance and the ability to land traffic at government-owned gateways ensure maximum information security.

NEW POSSIBILITIES
Low-latency and high-throughput connectivity optimise off-boarding capabilities for multi-sensor missions.

CLOUD-SCALE CONNECTIVITY
Low-latency performance and dedicated, private connections from remote sites to the nearest cloud data centre support time-sensitive cloud workloads.

MISSION FLEXIBILITY
Flexible bandwidth allocation on forward and return links enables capacity in line with changing mission requirements.

PROVEN TECHNOLOGY
O3b mPOWER is the only non-geostationary orbit (NGSO) solution based on commercially and operationally proven technology.

SES