

# NEAR REAL-TIME CONNECTIVITY FOR ISR MISSIONS

DEA Aviation Ltd. and SES

## Case Study

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### Industry

Airborne ISR

### Location

Europe



SES<sup>▲</sup>

# We're working closely with DEA Aviation Ltd. to ensure near real-time delivery of high volumes of mission critical data.

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DEA Aviation has been assessed independently as the leading organisation in its sector.

In government-led operations such as environmental monitoring or border patrol and protection, real-time data is of immeasurable value. Globally, there is a growth in demand for intelligence, surveillance, and reconnaissance (ISR) solutions that enable timely and informed decision making during high pressure, and at times high-risk, missions.

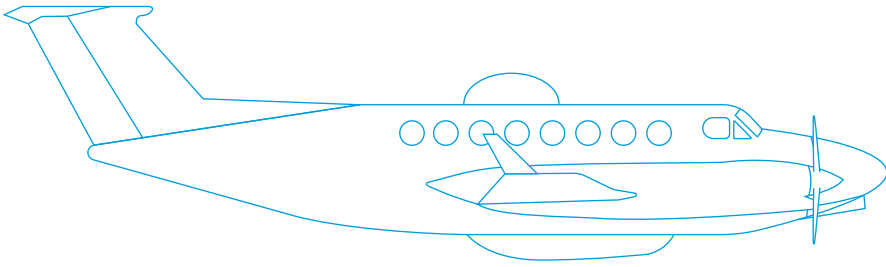
DEA Aviation is a UK-based aircraft operations, management, and maintenance service provider delivering manned airborne ISR solutions to global government agencies and organisations. Since 2016, DEA Aviation has been assessed independently as the leading organisation in its sector. In early 2019, DEA Aviation was looking to improve its data and connectivity quality to help serve its customers better. As ISR missions are deployed around the world, it can be difficult to establish a reliable connectivity link with the right coverage while meeting the required data quality. The global coverage of our satellite fleet and our range of connectivity offerings allowed us to provide DEA Aviation with the right solution for the right price range, within the desired coverage area, which helped the organisation maintain its market edge.

Near real-time connectivity over a wide coverage area is key to beyond line of sight surveillance missions as it unleashes the range that aircraft have. The requirement to remain within line of sight connectivity limits aircraft area of operations (AOR) to the area around a particular country or coastline. SES's satellite connectivity solutions play a major role in allowing airborne ISR providers like DEA Aviation to go global. "What set SES aside was the flexibility they showed, their speed of response, and their ability to be prepared to support where we needed to go," says John Sullivan, Head of Operations at DEA Aviation.

With any ISR mission, the value of information is inversely proportional to the time it takes to deliver it to the right place. "That's where the satellite link we have with SES comes in," explains Dicky Patounas, Director of Business Development of DEA Aviation. "So, we can make sure that the information we are gathering can be beamed to exactly the right place, in near real-time, all of the time, without interruption."

When DEA Aviation is out flying, especially on surveillance missions, satellite links are crucial to ensuring efficient flight to ground operations. "The immediacy of our communication is quite critical to us," notes Sally Varley, Head of Ground Operations at DEA Aviation. "The use of satellites for both communication and transmission of data is a very important aspect of everything we do." Our satellite solution with SES enables DEA Aviation to effectively respond to stimuli within mission environments, relay data back to intelligence analysts, and adjust mission parameters if needed. "It allows us to have the agility to meet ever-changing and ever-evolving customer requirements," says Luke Sutton, Head of Management Systems at DEA Aviation.





### Enabling near real-time connectivity for a range of sensors:

- Electrical optical/infrared (EO/IR) cameras to capture activity on the ground and at sea
- Maritime radar to track maritime vessels
- Ground radar to track terrestrial vessels
- Satcom connectivity to enable near real-time communication in flight to ground operations

## Our service offering meets DEA Aviation's unique connectivity requirements:

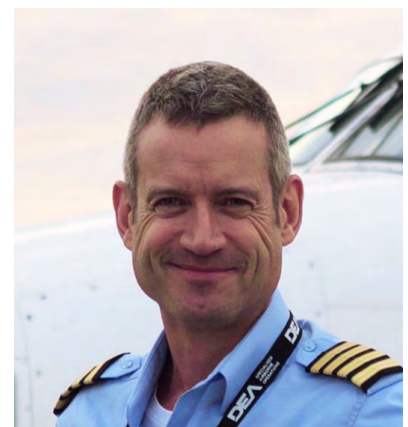
- Hosted on SES-4
- 24/7 MOC and SMOC service support
- Global GEO service coverage via SES satellite fleet
- High-throughput, low-latency connectivity via our MEO fleet
- Between 1Mbps and 20Mbps, dependent on terminal

One of the key government agencies that DEA Aviation serves is Frontex—the European Border and Coast Guard Agency. Near real-time land and maritime surveillance provided by DEA Aviation allows Frontex to monitor and, if necessary, act upon life-critical situations or illegal activities that might be taking place. “Critical to this service is the suite of sensors that we carry, allowing the team leaders that we liaise and work with to see very high-quality images—be that of our radar, or our cameras, all of which is sent to them in real-time via the satellite links SES provides,” says John Sullivan. “We have a very close and mutually respectful working relationship with Frontex. In turn, we are supported ourselves by a very close and mutually respectful relationship with SES.”

At SES, we're uniquely positioned to host customers like DEA Aviation because we can effectively meet their connectivity requirements when deploying a range of high-fidelity sensors—including electrical, optical, infrared, and maritime ground radars. “It is only through the flexibility of our multi-orbit offering that our customers can tailor exactly what they need to what they are going to see out in the field,” says André De Brito, Market Development Specialist for EMEA ISR at SES.

We continue to charge ahead with the technology required to power airborne ISR companies like DEA Aviation. As we look forward, O3b mPOWER—our next-generation Medium Earth Orbit (MEO) satellite network communications system—will provide over ten times the connectivity that our customers currently see, and bring greater system flexibility, performance, and scale to enhance ISR missions in the future.

“There are many agencies or support organisations that don't share the level of commitment that we need. We're delighted to have a partner in SES that is willing to go the extra mile to help us, and has that commitment to finding solutions rather than providing a stock answer. That's the thing we greatly value. Our partnership with SES is very important to us.”



**JOHN SULLIVAN**  
HEAD OF OPERATIONS OF DEA AVIATION

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