THALES UK RECEIVED DA62 SPECIAL MISSION AIRCRAFT FLEET

News / Manufacturer

For the first time, Diamond has delivered to Thales UK aircraft, equipped with the Thales Avni capability enabling fully interchangeable sensor configurations on both available surveillance platforms. The capability includes two DA42 MPP as well as two DA62 MPPs, each designed and modified to be capable of carrying three different sensor configurations.

Configuration 1 – Thales Avni Long Range Oblique Photography Sensor
Configuration 1 provides a Long Range Oblique Photography (LOROP) standoff reconnaissance capability. The Avni LOROP system is operated by the pilot. Control of the system is provided by the Cockpit Controls located in the front of the cockpit, including Pointing Angle, Event Marking, Record, etc. as well as System Status feedback to the pilot.

Configuration 2 – Thales I-Master SAR and EO/IR Gimballed Turret Sensor System
Configuration 2 provides a Synthetic Aperture Radar (SAR) surveillance capability. The I-Master system will be operated by a Tactical Flying Officer (TFO) from rear cockpit using dedicated workstations and controllers. The TFO will monitor the I-Master SAR and identify points of interest that can be cross-cued to the EO/IR gimballed turret to enable optical interrogation and tracking of

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.

points of interest and, if required, onward transmission of selected data to infra-structure on the ground.

Configuration 3 – Thales Avni WFOV and EO/IR Gimballed Turret Sensor System
Configuration 3 provides a Wide Field Of View (WFOV) EO/IR real-time surveillance capability. The Avni WFOV system will be operated by a TFO from the rear cockpit, using dedicated workstations and controllers. The TFO will monitor the Avni WFOV dual band data and identify points of interest that can be cross-cued to the EO/IR gimballed turret to enable optical interrogation and tracking of points of interest and, if required, onward transmission of selected data to infra-structure on the ground.

TUKL Avni Backbone
The Avni Backbone installed in each aircraft, provides a common architecture enabling each of the sensor configurations to be role changed onto each of the aircraft as required to support operational requirements. This approach reduces the number of individual architectures required to support the individual systems and therefore reduces cost and re-configuration turn round time (TRT).

The Avni Backbone provides each configuration with common access to:

- Aircraft Power/ Navigation Data/ Control and Operational Interfaces/ Recorder
- Datalink

The Avni Backbone enables each aircraft to be equipped with an inventory of role change sensor configurations. The Avni Backbone also provides an open-architecture solution which will readily allow for technology insertion of new sensing capabilities and support of evolving customer requirements.

Line of Sight Data Link
The Line of Sight Data Link enables data selected by the TFO to be transmitted to the Mobile

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.

Ground Receiver Station's (MGRS) units deployed in the field. This data includes Points of Interest obtained from the Avni WFOV, I Master SAR or the EO/IR gimballed turret. The data link provides a bi-directional TCP/IP-based link which allows video/data/voice to be seamlessly transported between aircraft and ground.

Onwards distribution of this data could be provided using a ground-based relay network of one or more nodes, either autonomous unmanned or mobile stations are feasible, and can be offered as an upgrade at a later date, once the user's operational requirements are realised after an initial capability has been established.

Thales Intelligence Management and Imagery Exploitation

The TIMIX system provides a complete data fusion and intelligence management capability that has been integrated with a wide range of ISR assets and is capable of ingesting, storing and retrieving a large number of imagery and data formats ready for extraction and distribution when required. TIMIX provides a complete intelligence management capability that can be scaled to match a user's operational requirements. Numerous TIMIX nodes can be connected by a network infra-structure to provide a complete intelligence data management network. A TIMIX node network can be extended once the user's operational requirements are realised after an initial capability has been established.

The TIMIX system is designed for operators to produce imagery/data -derived reports in response to specific requirements utilizing the stored mission imagery/data. These reports, typically PowerPoint-based, are produced in either hard- or soft-copy format and may be saved to removable media including CD, DVD and USB storage devices.

The TIMIX system has a modular architecture: as a result, new capability, storage and workstations can be added without the need for a re-design. A TIMIX system can be configured and scaled to meet the user's requirements, and the costs minimized through the utilization of 'best in class' Commercial off the Shelf (COTS) hardware and software.

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.

“In summary, the Avni and TIMIX systems provide a capability that enables the collection of data to enable operators to exploit data and provide time critical data fusion as part of an end to end integrated intelligence capture and management architecture,” says Linda Lloyd, Senior Programme Manager Optronic Missiles Electronics (OME).

Markus Fischer, Director Special Mission Aircraft at Diamond Aircraft Austria: “Beside the circumstance that Thales Group and Diamond are long term partner, it has been a huge success to hand over and complete the most complex program in the history of Diamond Aircraft Special Mission Division. As a team, we pushed both aircraft types to its limit in regards to performance, capacity and complexity. To develop together this new Major Change Reconnaissance Pod has been a great success to both engineering departments. We are happy to welcome Thales UK to our Diamond Special Mission Aircraft Family.”

Maximilian Stadler, Project Manager at Diamond's Special Mission Department states: "We are proud to finalize a challenging project which results in introducing a highly capable and flexible ISR aircraft fleet into the customer’s operation. I am particularly pleased that all involved project collaborators united their professions to meet the extensive range of requirements to perfection.”.

Airborne configuration
+ DA42 & DA62 Special Mission Aircraft
+ TUKL Avni Backbone:

- Configuration 1 – Thales Avni LOROP Sensor
- Configuration 2 – Thales I-Master SAR and EO/IR Gimballed Turret
- Configuration 3 – Thales Avni WFOV EO/IR Sensor and EO/IR Gimballed Turret

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.

31 MARCH 2019

ARTICLE LINK:
https://mfa.50skyshades.com/news/manufacturer/thales-uk-received-da62-special-mission-aircraft-fleet

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.