Singapore, 12 February 2020 – Airbus and Singapore have agreed to collaborate on the development of the A330 SMART Multi Role Tanker Transport (MRTT) for the Republic of Singapore Air Force (RSAF). The SMART MRTT programme will develop, certify and implement Automatic Air-to-Air refuelling (A3R) capability as well as enhanced maintenance solutions for the A330 MRTT.

With this collaboration Singapore becomes a key partner for the new automated aerial refuelling capabilities. Under the agreement, a RSAF A330 MRTT will take part in the ongoing development, flight test campaign and final certification programme. The flight test campaign, which has already started, is aiming for certification in 2021.
While development of SMART MRTT capabilities further strengthens Airbus’ leading position and technological edge in the tanker market, the enhanced maintenance solution is designed to improve A330 MRTT’s availability and overall mission success rate.

Airbus Head of Military Aircraft, Alberto Gutiérrez said: “With this agreement, the Singapore Air Force leads the evolution of the A330 MRTT, helping us to bring new hands-off capabilities to the benchmark of next-gen tanker operations”.

Towards a full autonomous operation

The A3R system requires no additional equipment on the receiver and is intended to reduce air refuelling operator (ARO) workload, improve safety and optimise the rate of air-to-air refuelling (AAR) transfer in operational conditions to maximise aerial superiority.

Once the A3R system is activated by the ARO, the Boom Flight Control System becomes fully automated and progresses to transfer fuel upon contact with the receiver. During this process, the ARO simply monitors the operation. In the event of an anomaly due to receiver stability deviations or malfunctions on the tanker, the A3R system is able to disconnect and/or clear the Boom away from the receiver safely.

On the receiver end, pilots closing in to the tanker take visual cues from the automated Pilot Director Lights (PDL). This feature allows for more efficient operations, with smoother transitions and minimises time during the coupled state.

The A3R development paves the way towards a fully autonomous aerial refuelling operation.

Two years since the world’s first automated contact

In July 2018 Airbus demonstrated that A3R was feasible as a product after the achievement of the world’s first automated contact with a Boom system. In a joint operation with the Royal Australian Air Force (RAAF), the company’s A310 development tanker performed seven automated contacts with a RAAF KC-30A MRTT, also made by Airbus.

Enhanced maintenance

Enhanced maintenance equipment will allow ground crews to detect and troubleshoot directly from the aircraft’s cockpit the root cause of a failure. This new upgrade enables faster resolution of ground tasks while providing the means for maximising the efficient use of spare parts.
The photo above shows a RSAF A330 MRTT in a refuelling operation with a RSAF F-15SG fighter.

About Airbus
Airbus is a global leader in aeronautics, space and related services. In 2018 it generated revenues of €64 billion and employed a workforce of around 134,000. Airbus offers the most comprehensive range of passenger airliners. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world’s leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

Media contacts
José Gascó  jose.gasco@airbus.com  +34 692 870 224
Belinda NG  belinda.ng@airbus.com  +65 9683 6361

This and other press releases and high resolution photos are available on: AirbusMedia
Visit our Singapore Air Show page to stay updated on Airbus presence at the Singapore Air Show.