

A top-down view of an Airbus A330 MRTT aircraft in flight. The aircraft is dark grey with white markings, including the number '764' on the fuselage. The cockpit windows and the refuelling probe are highlighted with green outlines. The wings and engines are also visible, with green outlines highlighting the refuelling probe and the engine nacelles. The background is a dark blue sky.

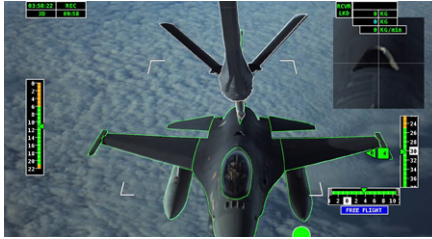
DEFENCE AND SPACE

A330 MRTT

Automatic Air to Air Refuelling

AIRBUS

A330 MRTT Automatic Air to Air Refuelling (A3R)



The A3R is the first fully certified and in service automatic refuelling boom system worldwide. It revolutionises traditional boom refuelling by automating the most critical phases of the refuelling operation. Not requiring any modification on the receiver.



Reduces the risk inherent to AAR operations. Reduces operator's workload, increasing safety while keeping the performances along the mission without being affected by human factors.



Maximises operational efficiency. Increasing the accuracy of contacts and reducing the contact time.



Automatic AAR (A3R) **will enable the next steps** for A330 MRTT to perform **fully autonomous** operation (A4R).



Automatic Boom Control and Contact Decision

Automatic separation after disconnection

Manual control can always be retaken by the Air Refuelling Operator (ARO)

Automatic and immediate decoupling, with a safe separation from receiver aircraft, when required

Developed in collaboration with:



Republic of Singapore Air Force



Royal Australian Air Force

A3R operates by precisely detecting receiver and boom positions **using image processing from the 3D cameras of the A330 MRTT's Enhanced Vision System (EVS).**

A330 MRTT The Benchmark

- **THE TANKER OF CHOICE**
 - Over 90% market share (excl. US) in the last 10 years
 - The widest customer base with 19 nations
- **MORE OF EVERYTHING**
 - 111 tonnes of fuel
 - 280 passengers, up to 45 tonnes of cargo
 - True multi-role without reconfiguration and in the same mission
- **COMBAT PROVEN & INTEROPERABLE**
 - Only combat proven new generation tanker
 - More than 350 000 flight hours
 - Mission success rate of over 98%
 - Fully interoperable with receivers worldwide