

# Air-to-Air Refueling



A330 MRTT © Airbus

Air-to-air refueling (AAR) is a critical enabler for air power projection and it is required to enable sustained air combat operations. As a unique force multiplier, it is a fundamental technical characteristic embedded in modern aircraft design; not just in combat aircraft, but across the full spectrum of air platforms – including in the near future Remotely Piloted Aircraft Systems. In the past, European armed forces have relied systematically on American assets. This was clearly demonstrated in the Kosovo campaign in 1999 and confirmed during the operations over Libya in 2011. Today Europe is able to field 42 tanker aircraft of 12 different types, which when compared with the US resources of over 550 tankers of four types is a clear indication of the European shortfall in this field.

## A Pooling & Sharing Initiative

Air-to-air refueling was endorsed by the EDA Steering Board on 30 November 2013 as one of eleven Pooling & Sharing priorities. At the subsequent board meeting on 22 March 2012, Ministers declared their willingness to support further development of air-to-air refueling capabilities and to better coordinate them. They agreed that aerial refueling capabilities should be developed in Europe as a matter of priority; and that these capabilities should be made available for potential use during EU, NATO, or other framework operations.

## Global Approach

EDA has developed a global approach with three objectives: increasing the overall AAR capacity, reducing fragmentation of the fleet, and optimizing the use of assets. This work has led to Three complementary work-strands, on some of which EDA is cooperating closely with other agencies and organizations like OCCAR, the Movement Coordination Center Europe (MCCE) and the European Air Transport Command (EATC).

EDA is working on three workstrands to counter Air-to-Air Refuelling shortfalls in Europe:

### 1. Optimization of existing capabilities

Europe's military tanker fleet is fragmented. To increase interoperability EDA is supporting agencies like EATC in organizing AAR training exercises (EART). Worldwide people now realize that a tanker without clearances is not a tanker. EDA has taken the lead to streamline the different certification processes leading to a clearance. By standardizing these processes the different aviation authorities can easily identify the differences between their own process and their counterpart. This pillar includes all tanker and receiver types (A330MRTT, KC767, A400M, KC46). By working together closely already fielded capabilities and future capabilities can work more cost efficient and increase their operational output. Within this pillar EDA leads the project to find subjects which are potential synergies. The focus is on certification, Training, sustainment and common development of capability.

## 2. Introduction of the A400M fleet AAR capability

This work strand focusses on the acquisition of extra Refuelling pods by for example receiver nations thus increasing the amount of tankers without acquiring additional aircraft. EDA is closely monitoring the development of the A400M and when the time is right this pillar can be reinvigorated.

## 3. Increasing the strategic tanker capability in Europe by 2020 (MMF)

In July 2016, The Netherlands and Luxembourg signed a Memorandum of Understanding to proceed with the acquisition of a pooled fleet of Airbus A330 Multi Role Tanker Transport (A330 MRTT) aircraft. On 25 September 2017, the contract was amended to include two additional nations as participants in the MMF project: Germany and Norway. This amendment of the contract increases the scope of the project from the two A330 MRTT aircraft (initially ordered by The Netherlands and Luxembourg) to seven aircraft in total, including also options for up to four additional aircraft in the future (potential increase to 11 aircraft in total).

The delivery of the seven A330 MRTT aircraft is expected between 2020 and 2022.

## Air-to-Air Refuelling at a glance

**TODAY:** characterized by important shortfall (80% of Libya sorties flown by US assets) and fleet fragmentation resulting in reduced overall efficiency (both from an operational and cost point of view).

**TOMORROW:** EDA works towards pooled future fleets and to establish synergies with existing military organizations to build a balanced and efficient European tanker fleet combining tactical and strategic interoperability.

Additional information available on the [project page](#).

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