



Manufacturing Engineering

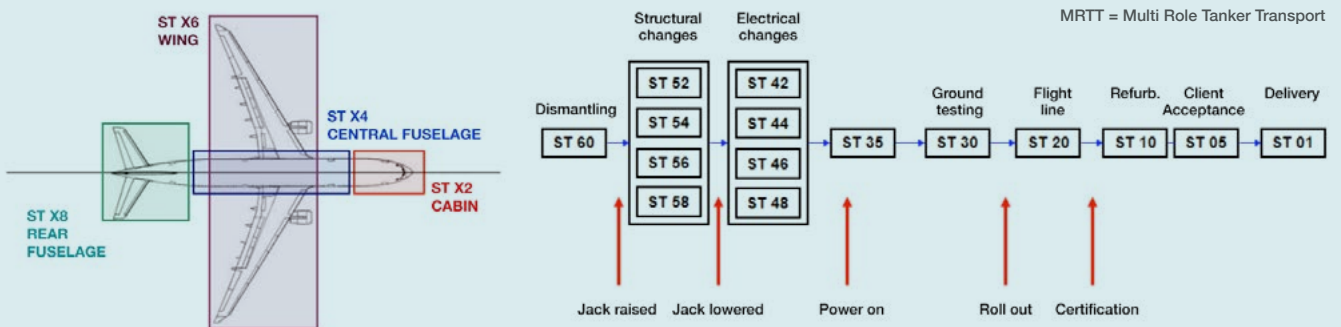
A330 MRTT

Conversion planning & production control

Airbus Military / Planning and production control (2009-ongoing)



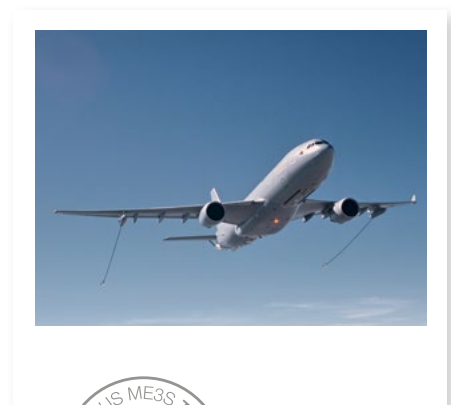
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AERTEC Solutions has been involved in the A330 MRTT's planning and production control since the first conversion was initiated in July 2009. The project consists of converting civil A330 aircraft – assembled as passenger aircraft in Toulouse, France – into military in-flight refuelling aircraft for other aeroplanes.

A330s which arrive at Getafe (Spain) for conversion are known as "green aircraft". The conversion takes around a year of work on the aircraft and involves:

- Dismantling
- Mechanical alterations (reinforcements, device installation, etc.)
- Electrical alterations (wiring, avionics, etc.)
- Functional testing (inside and outside the hangar)
- Refurbishing (reinstallation of components)
- Delivery to client



Preferred manufacturing engineering supplier (ME3S) for Airbus





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Structuring the information that flows through the different departments and units involved in each aeroplane's production is essential in the conversion of a civil A330 aircraft into an MRTT. Knowledge about the project since its inception along with previous experience in similar projects (the A400M for example) have allowed internal procedures to be developed that serve as work guidelines for planners in order to enhance and standardise the interchange of production planning data. Once the information is structured, it is placed at the disposal of the points enabled for such purpose; in other words, it is selectively aimed at different users in each unit.

This a two-way process: input and output. Each player has to input specific standardised information into the system. When such information is properly interrelated with information from the other players, it generates new standardised information which will then serve to provide support to decision-making and to the operations of those players and their coordinators

Work phases

- Preparations prior to the conversion
- Setting the conversion's operational planning
- Monitoring the conversion's progress
- Identifying risks and possible impacts

Scope of work

- Analysis of load/capacity per aircraft/area/resource
- Analysis of the planning's feasibility based on available resources (human, material and technical)
- Coordination with the departments involved in the project
- Issuing production orders
- Updating lean panels
- Delivering orders to production
- Monitoring the orders' progress
- Drafting safety reports for each aircraft and area
- Incident management
- Closing orders

Technical data

MRTTs are equipped with several refuelling devices and can also receive fuel from tankers:

- Aerial Refuelling Boom System (ARBS)
- Under-Wing Air Refuelling Pods
- Fuselage Refuelling Unit (FRU)
- Universal Aerial Refuelling Receptacle Slipway Installation (UARRSI)

The following can be highlighted as the most significant data about refuelling:

- Capacity: 139,000 litres of fuel
- Refuelling at up to 35,000 feet
- Refuelling flow rate: 1,600 l/min (FRU or PODS) and 4,600 l/min (BOOM)

