

MECHANICAL ENGINEERING

Aviation

ALTEN ADDED VALUE

Work package (IQP4):

Full work package mode

Transnational team organization (UK and FR)

Pylon development expertise with

multi-program experience

Front office in Derby

KEY DATA

Team Size: 30 FTEs

Time: Since April 2019

Location: Derby (UK) and Toulouse (FR)

Full Work Package

KEY TOOLS & TECHNOLOGIES

Patran/Nastran

Hyperworks

CATIA V5

MIL-HDBK-17, MMPDS-02

ROARK, NIU, BRUHN

ALTEN TECHNOLOGY

LARGE TURBOFAN DEMONSTRATOR

OVERVIEW

- Flight test demonstrator (FTD) pylon design for testing the client's upcoming large turbofan engine
- Design and stress development from pre-matA to flight test the following components:
 - > Pylon structure
 - > Aft pylon fairing (APF)
 - > Crestline
 - > Inner pylon fairing (IPF)
 - > Systems installation

PROJECT DETAILS

- Architecture definition
- From master geometry to SAM and GRM
- Loads and design policy definition
- Design feasibility studies
- Stress justification (hand-calculation, GFEM and DFEM)
- Stack-up analysis
- ICD creation and validation
- Requirements management

