

Airbus A380 Wing Design Team Collaboration

Project Overview

The A380 is the latest aircraft in the Airbus family, which will seat 555 passengers in a typical three-class interior layout when it enters airline service in 2006. The aeroplane has been designed in close collaboration with major airlines, airport and airworthiness authorities, to bring new standards of comfort and better economics in an aircraft that is more environmentally responsible.



Customer Requirement

To achieve a significant ramp-up of resource to meet A380 project requirements and to overcome space limitations at Filton some two years ago. The objective was to build up a specific skill base external to AUK, which would be used to meet future outsource supply requirements.

Engineering Support Provided by GKNAES

GKN Aerospace Engineering Services (GKNAES) and Airbus UK (AUK) set up a collaborative agreement to work together as a co-located team at GKNAES's Avonmouth facility to design the A380 Wing Mid box structure.

Summary of Engineering Support provided by GKNAES

GKNAES's involvement in the A380 Wing Mid box structure project operates at two levels, provision of a highly skilled engineering team and provision of a fully managed office environment, which is in effect an extension of AUK's Filton factory.

Provision of Engineering Team:

GKNAES was required to provide:

- A team of up to 120 Design and Stress specialist engineers.
- Engineers to work as part of a seamless co-located team with AUK colleagues.
- A flexible service in terms of skill mix and size to meet varying A380 programme demands.
- Management resources to work alongside AUK colleagues taking responsibility for mixed AUK and GKNAES teams of engineers.

Provision of Managed Office Facility:

- GKNAES provided its Avonmouth facility, which operates as an extension of AUK's Filton factory.
- GKNAES Avonmouth facility operates on AUK's IT network linked through a fibre optic cable providing real time access to the Filton network.
- Avonmouth IT systems are provided, installed and managed by the same outsource company used by AUK to ensure 100% compatibility with other areas of the project.
- All team members enter their weekly hours into a common AUK collection programme that's used to monitor project status and derive efficiency statistics.

Key Points

- Service offered a single source solution for both resource and facilities requirements.
- Integrated team approach improved communication and the cross-flow of information, thus reducing risk.
- Service offered a flexible and stable resource solution supported by inherent product knowledge.

- Service provided by committed supplier with capability to invest in and meet sustained programme requirements.
- The GKNAES / AUK alliance has been identified by AUK's senior management as a highly successful model benefiting the programme significantly throughout its development phase.