m² managementors

creating sustainable business advantage

Case study

Name: Leading Aircraft Maintenance Provider

Sector: Site/Depot Based Maintenance

Location: Gatwick

Preparing for take off

This aircraft engineering company was a leading provider of maintenance, repair and overhaul (MRO) services to the aviation industry. Operating globally, they provided aircraft maintenance services to clients located in Europe, the Middle East, Australia and North America. The company employed over 500 engineers, located across base maintenance sites in the UK, and 200 engineers on line maintenance stations across the UK and Europe. In addition, engineers were contracted in on an ad-hoc basis.

As well as base and line maintenance, the business also provided fleet technical support, design services, Aircraft On Ground (AOG) Support, Continuing Airworthiness Management (CAMO) services and component services. Line maintenance support was available for Airbus, Boeing, Embraer and Bombardier aircraft types. They were also a worldwide, Boeing-approved Global Fleet Care provider.

Key challenges

- Significant costs pressures on the business as a result of the evolving industry and the need to remain competitive
- Underutilisation during shifts caused by inaccurate availability requirements
- Substantial variances in performance between line stations hindered by ineffective management practices
- Siloed base and line operations resulting in overcapacity

Key gains

- Increased visibility of engineer performance
- Cost avoidance of £1m through identification of training requirements and balancing of shift profiles
- Improved forecasting gave greater insight into capacity to bring in more work at no extra cost

The Challenge

As a successful Aircraft maintenance operation with over 40 years' experience, the company was facing significant challenges due to the changing shape of the airline industry. Changes to support requirements, combined with alterations to flight schedules, put cost pressures on the business. Due to legacy shift patterns, there was a mismatch between requirements and the availability of engineers with specific type approval certificates leading to under-utilisation during shifts. Significant white space had opened up in engineer schedules causing costs to be high at a time when revenues were reducing.

There were significant variances in performance between different line stations and, whilst this could be partly explained through differing flight patterns and airport requirements, it was felt that management weaknesses and embedded working practices were behind the differing performances.

Base and Line operations were typically run as separate operations with little movement of engineers between the two. As a consequence, overcapacity in the line operation was not utilised to support the base operation and ensure that aircraft rejoined the fleet in a timely manner.

With a good reputation for the quality of its engineering, it was important for this company to remain competitive, as significant capacity and cost pressures existed in the industry.

"By applying the principles of active management, improving the line maintenance processes and putting in place an effective management system, the Managementors team quickly helped the client improve their service to the airlines and ultimately the passengers travelling with them."

Emma Sacchi,
Project Manager,
Managementors

Uncovering the issues

A Managementors team carried out an initial analysis of the line maintenance operation. Time was spent with both the day and night shifts of the operations in two key sites. This revealed that there were significant differences in working practices between the two. Whilst flight patterns were relatively stable and predictable, planning was often carried out late in the day for the night shift, with the consequence that required parts were often unavailable for the work that had been planned. Whilst this was partly due to the airlines, there were underlying issues within the stores departments on each site, which meant that there was only limited visibility of what was actually in stock at any time.

There was limited performance data and an absence of meaningful metrics, which meant that it was difficult to manage engineers effectively. As a consequence, they were often left to plan their own workloads. Whilst there was a significant under-utilisation of engineers, there were also instances of aircraft being released late for the first wave of flights in the morning.

Due to a lack of active management, issues regularly went unaddressed. Whilst work had to be signed off by a competent person, the opportunity for a review of performance was often missed. As a result of this, work carried out was often not charged for or recorded. During the project, bar code scanners were introduced, which enabled engineers to record their activities, time for completion and parts used against each job, enabling managers to have greater visibility of activities and manage resources more effectively.

Managementors worked alongside the station managers and the central planning team to develop processes and roles and responsibilities that would support a more effective way of working. Process mapping workshops were carried out to identify blockages and to create a more cohesive end-to-end way of working. Key activities were identified and added to planners' schedules to ensure that the daily plans were created in a timely manner. Roles and responsibilities were modified on-site to clarify responsibilities for key tasks on site.

A significant amount of work took place in creating resource models which would allow a closer relationship between plane arrivals and the skills available on site. Standard times were applied to required jobs plus, by using historic data, an overall workload by period was created for line station managers to crew against. Additional tasks were identified which could be carried out in the white space within the schedules. By using these models, the client was able to identify timeslots which could support additional work with no additional cost. This fed into the sales function to use when offering their services to airlines. In addition, it allowed the client to go to the airlines with actions which could improve the service provided to them.

Outcomes

By identifying true workloads within the line stations and overlaying flight schedules with commercial obligations, it became possible to highlight where and when line station engineers could support base station work. This became possible on both a short term and longer term basis following the reorganisation of shift plans.

Following the implementation of a cross training plan, the differentiation between production and part 145 planning was removed and the roles of planners was enhanced to add more value to the organisation.

Through the implementation of targeted training plans, the balance of technicians, mechanics and the differing categories of engineers were matched to the requirements of the business, allowing for a reduction in subcontractor spend. Through this reduction and cancellation of vacancies, £1m of cost avoidance was achieved overall.

"Working airside on both the day and night shifts had its challenges but the client quickly adopted the new ways of working. Through improving the relationships between the airlines, the client and the engineering teams the Line stations became more effective and created capacity to bring more airlines on board."

Emma Sacchi,
Project Manager,
Managementors

Contact us to find out what Managementors can do for you

Call +44 (0)1256 883939

e enquiries@managementors.co.uk
w www.managementors.co.uk

managementors

ISO 9001 Quality Management Systems CERTIFIED

MCA A POSITIVE FORCE FOR THE ECONOMY ASSOCIATE MEMBER