



# Flexible MRO IT Systems

Meeting the stringent demands of CAMOs requires some specific software capabilities, explains **Mark Rogers**, Commercial Manager at McLaren's Aviation

**MCLARENS AVIATION (FORMERLY** Airclaims), is a leading aviation loss adjusting business serving the global insurance market. Whilst claims management is around 80% of the business, our Risk and Asset Management division continues to grow extensively year on year. This growth is primarily driven from a need by our clients for increased levels of external resource support, as part of business improvement initiatives and cost reduction objectives. Our clients include aircraft operators, lessors, financiers and Oil, Gas and Mining companies. They turn to us for a number of solutions, including Pre-Purchase inspections / valuations, lease reviews, aircraft delivery / redelivery / transition management,

Continuing Airworthiness Management services and independent operational and technical risk audits. McLaren's Aviation is a Continuing Airworthiness Management Organization (CAMO) approved by the European Aviation Safety Agency (EASA) in accordance with Part M, Subpart G and I (ARC) requirements. We are approved to provide these services on over 30 different aircraft types from the major manufacturers and offer a full suite of CAMO services to support private aircraft owners, commercial operators, financiers and leasing companies. The range of aircraft and the scope of regulation grow ever more complex, some aspects of flying and maintaining commercial aircraft are increasingly

demanding, therefore, appropriately trained and approved personnel together with suitable maintenance control software, is essential in providing safe, efficient and compliant airworthiness management. In this article, we will review the requirements of a CAMO and the Commssoft OASES IT system.

## CAMO REQUIREMENT

Why do we need CAMO? The short answer is 'EU' regulation and compliance. However, regulation aside, the goal is to safely maintain, monitor and control the serviceability and airworthiness of an aircraft. The operational and maintenance life of an aircraft is subject to strict regulation, therefore, a suitable maintenance control platform, that is user friendly, reactive and helps to ensure that all the mandatory, essential, routine and regulatory elements of an aircraft life are managed is essential.

## COMMSOFT OASES OVERVIEW

To support McLaren's Aviation CAMO function, we elected to acquire Commssoft's OASES (Open Aviation Strategic Engineering System) package after a thorough

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review of market options, as the solution was the closest to meet our overall needs particularly in terms of functionality and scalability given our consultancy role, with many aircraft transitioning on and off of our CAMO at any one time. OASES is considered to be a highly effective aviation engineering and maintenance system. Easy to use with a wealth of features, it fully meets the needs of both major airlines and independent CAMO organizations. A key function of the OASES package is that it comprehensively supports the need for compliance management. There are a number of essential requirements and regulations that users need to follow to maintain the airworthiness of an aircraft in a controlled environment. OASES supports this requirement and is able to control of all aspects of maintaining the airworthiness of aircraft, from the daily check through to the base maintenance input and airworthiness directives and service bulletin control. The control and monitoring of non-mandatory information, modifications and repairs is also processed and managed as part of the integrated functions.

In addition to the airworthiness management elements, OASES has a comprehensive inventory, stores and procurement portal, which can be used as part of a fully auditable and effective business process tool.

An illustration of IT platform compliance, Control and Auditing is demonstrated in figure 1 below:

## COMMSOFT OASES IN ACTION

A number of our CAMO team have used OASES in previous roles with airlines such as British Midland International (BMI), BA City Flyer and BAe Systems. McLaren's Aviation has over 5 years' experience with OASES and we have been impressed with the multifunctional nature and ease with which we can control, access and run reports. The ability to search data by a variety of fields such as part number, aircraft type, fleet, ATA chapter and produce relevant records confirms the usability of the product.



Figure 1



Figure 2

There are always the key issues of safety, therefore, pilot reporting systems (PIREPS) is a very useful mechanism which allows users to set their parameters to highlight any technical or maintenance issues occurring and (or) recurring.

Importantly, the system works in real-time and promotes a proactive rather than reactive approach to airworthiness oversight. Having managed aircraft based in Asia, Eastern Europe and South America, the ability to remotely manage customer fleets using high speed internet for real-time processing has been key to our business and the needs of our customers.

As a full service technical consultancy, the OASES package offers us a cost-effective lifecycle management tool that interacts and supports the needs of our lessor and lessee sector clients and the core services that we provide. (see fig. 2).

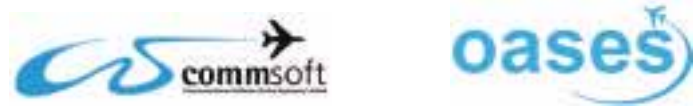
The initial stages of data entry are key; validating and loading the Approved Maintenance Programs (AMP). Our CAMO team need to control, monitor and manage an extensive amount of forecasting data that includes, Airworthiness Directives (AD) and Service Bulletins (SB). The data process cycle continues through to repair and modification management, technical log data input and repetitive / deferred defect management. This process fully supports the need to set up a reliability reporting process through the PIREPS, hence completing the system cycle.

#### MEGA MALDIVES; CONTINUING AIRWORTHINESS MANAGEMENT – BOEING 757 AND 767s.

Following the award of a two year contract to serve MEGA Maldives Airlines as their approved CAMO, McLarens Aviation supported the airline through their start-up process, inspecting aircraft and performing a number of due diligence assignments to assist with the aircraft induction process. MEGA Maldives with their operational HQ based in Malé, Maldives illustrated how flexible and capable the OASES IT system design is. With minimal notice we were able to quickly load the required data and go live to manage the airworthiness of one Boeing 757 and two 767s remotely from our London office.

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## OASES MRO IT System



- New AMP revision, LMC and AD/SB management software
- New commercial management and warranty modules
- Linked to ops systems, EFBs and ETLs
- Optional hosted environment eases smaller fleet access

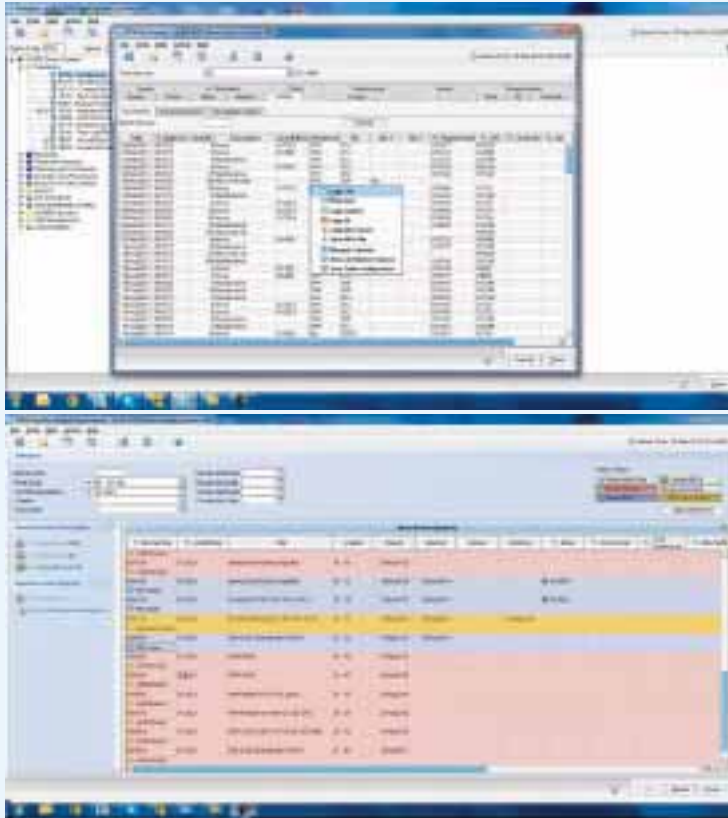
Commsoft's OASES MRO system offers comprehensive professional functionality together with a flexible, affordable approach that understands your business' scaleable growth needs in today's turbulent market.

Each OASES module can be offered individually or can be integrated at the engineering centre of your business systems.

Over 50 current aviation users, including airlines and MROs, spares suppliers, CAMO, corporate and bureau operators have grown their success with us.

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[www.commsoft.aero](http://www.commsoft.aero)

*“... McLarens Aviation supported them through the airline start-up process, inspecting aircraft and performing a number of due diligence assignments to assist them through the induction process.”*



OASES Screenshots



Moving forward two years, we have since trained and supported the airline to the extent where they feel confident to run their own OASES package and our role has evolved to be 'on call' support rather than remotely managing the whole airworthiness process, which is a typical transitional process for many start-up airlines.

It's a key attribute of our business to be in a position to help clients at the very start of their operation and to have a system that allows us to train the airline's own team during the start-up phase, so that we can hand-over and move to a more support orientated role when appropriate and to help with technical acceptance work and future ARC / EASA conformity assignments, as required.

#### SYSTEM HIGHLIGHTS

McLarens Aviation has come to appreciate the cost effective nature of the OASES platform and its ability to produce a customized maintenance program in a format that can be presented to the authorities seems to appeal to our users and our clients' operational requirements alike. One particular unique feature that we found of significant value was the ability to hold any revisions to AMPs in draft form until approval is received, thereafter, they can go live in the system with just one click.

The system also allows LLP (Life Limited Part) control, whilst major parts and sub-assemblies can be easily installed or removed from the system, helping to organize maintenance and repairs in advance of any needs arising.

A good maintenance control system should of course help reduce workload, mitigate errors and add value. We've found that the OASES system helps to highlight essential matters in areas that otherwise could have a serious and costly effect, particularly with AD, SB reporting.

In our experience, the OASES system design compliments the CAMO process well, incorporating key elements that support the relationship between various inputs and in the airworthiness management of an aircraft. We maintain a separate secure database for each airline client, thus protecting and ensuring client confidentiality. OASES has proven to be a reliable and stable system with added value capabilities such as the ability to attach documents, vary printing and download formats. The system is well-structured for efficient data input, reducing the need for hard copy paperwork. In summary, OASES has proved to be a very versatile solution to support our needs and those of our clients, whilst making a valued contribution to our business and competitive position. ■

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### MARK ROGERS



Mark Rogers, an Incorporated Engineer with over 20 years' experience within the military and civil aviation sectors, joined Airclaims Risk and Asset Management team in 2010. He has corporate jet, rotary and EASA 145 airline maintenance experience and a track record in project management. Mark holds EASA Part-66 licenses including Avionics B2 and the Engine/Airframe Category 'A'. He is trained/type rated on Airbus, Boeing, Embraer, Bombardier, Dassault, BAE aircraft systems, and has a Private Pilot's licence.

#### MCLARENS AVIATION



McLarens Aviation is a leading provider of claims, risk and technical asset management services for the global aviation community, providing expert knowledge and support. The firm manages over 3,000 assignments a year through a network of 26 offices in key locations around the world, delivering responsive, innovative, bespoke solutions to the aviation insurance market, aircraft operators, airports, MROs, financiers, lessor and regulators.

#### COMMSOFT

Communications Software was formed in 1971 and won its first airline contract in 1975 with Laker Airways, beginning a 35 year association with the airline industry. A combination of aviation and IT experience resulted in Open Aviation Strategic Engineering System – OASES: a set of systems to enhance efficiencies and reduce costs in aviation maintenance. Commssoft continually develops the OASES suite of programs and supports a growing customer base around the world.