MRO from the Cloud on Down

Eurocopter picks Ramco’s cloud-based maintenance information systems to collect data in real-time process flows.

This past summer, Eurocopter, the helicopter division of EADS, and aviation software provider, Ramco Systems, began a partnership to offer cloud-based information for helicopter maintenance, repair, and overhaul (MRO).

This partnership agreement, formally signed at the 2013 Paris Air Show, enables Eurocopter and Ramco Systems to offer additional mobility and functionality for the collection and treatment of MRO-related data by making this information readily available in the field on tablets and smart phones. By cutting the cord to hardwired desktop computers, the partners intend to provide effective and cost-efficient fleet management services that are affordable and user-friendly for all operators – including those with smaller fleets of helicopters. To this end, Ramco has designed a modular solution with a new user interface with a role-based feature called WorkSpaces that is tailored to each person’s function within the maintenance organization.

By combining parts tracking with management checklists, the Ramco-Eurocopter cloud-based software is designed especially to address the needs of smaller operators and MROs, which until now have been limited to using disparate point solutions or operating manually using paper-based or desktop spreadsheets to track maintenance...
and manage safety and regulatory compliance.

**How It Works**

Ranganathan Jagannathan, vice president and head of aviation, Ramco Systems, offers details on the Ramco Aviation Solution, version 5.6, being implemented by Eurocopter. He relates that line mechanics and line supervisors can use the dedicated mobile apps to document the following information: work record and sign-off of scheduled and unscheduled maintenance, discrepancies or snags; component removal/replacement data; part requests; and timesheet records for job costing. Additionally, it's possible to review maintenance due lists and inquire about parts availability across locations.

Jagannathan notes the software offers beginning-to-end coverage from configuration, engineering, and planning, to maintenance execution in the hangar, shop, and line, as well as materials management.

“Some additional benefits that customers can get as part of the Ramco-Eurocopter partnership are support for management of master data like allowable configuration, task setup, maintenance program and packages, service bulletins, etc., for the Eurocopter fleet,” Jagannathan explains.

The application is designed to collect data in real-time process flows through online transactions across the entire spectrum of maintenance and engineering (M&E) and MRO.

“Ramco’s deep understanding about the industry and operator level challenges helps reduce time in tracking compliances, duplications of efforts across functions, delays in reporting, and much higher cost of maintenance operations,” Jagannathan says.

The application comes with extensive reporting capability, with email alerts, work flow, bar codes, e-Signature, and mobility tools built in.

**Data Access & Display**

The Ramco application is web-centric and can be accessed from anywhere in the world through any common browser application across any mobile or desktop platform. No third-party products or tools are needed to access the application. M&E/MRO data is displayed in the form of role based screens, dubbed WorkSpaces, intuitive dashboards, and flexible reports.

“Usability is one of the key aspects in product design resulting in reduced clutter, and it adds simplicity to the user experience, keeping advanced technology and data management in the background,” Jagannathan says.

All data relevant to a given function is displayed. For example, when a buyer is placing a purchase order, apart from displaying the current order-related data, it displays the past history of the part(s) being purchased. Consumption rates, current demand, and availability are displayed as well.

“This gives the buyer all the data necessary to make the right decision,” Jagannathan adds.

**Role Playing**

Jagannathan points out that WorkSpaces is a concept that has changed the way a user interacts with an enterprise class application, especially when the application is fully integrated across many functions like maintenance, materials, supply chain, engineering, finance, and HR.

“The typical operator or MRO has a very standard set of roles like engineer, mechanic, stores clerk, tech records clerk, buyer, etc.,” Jagannathan continues.

The Ramco aviation solution provides distinct workspaces for each of the most widely used roles in the aviation enterprise where everything that operators need to perform their daily jobs is available in one spot.

As Jagannathan says, “Role-based WorkSpaces is a ‘One Stop Shop’ for a given role in the organization.”

He describes it as a fusion of transaction and analytics presented in an optimized manner with rich visuals and graphical user interface.

The optimization refers to what Jagannathan calls the “One screen does it all” concept, where all parameters and functionality required to perform a role and its related functions are provided in a single screen. Depending on the context of a user’s selection of items, the layout of tabs and related hyperlinks changes automatically. For example, if a user is trying to update the hours/cycles and configuration of an aircraft, the corresponding data and links are presented to the user to choose and use. Similarly, if the user wants to switch over to updating compliance of a maintenance/service bulletin or airworthiness directive, then the required links change automatically.

“The data-driven interaction increases productivity in using the application and also reduces training time significantly,” Jagannathan stresses.

**Up on the Cloud**

Eurocopter offers Ramco’s Aviation Suite on a cloud model to all existing and new customers. Customers also have a choice to opt for Private Cloud and On Premise implementation. Aviation suite is available on all Windows, iOS, and Android devices.

Jagannathan says, “All you need is a browser and Internet or intranet connection.”

Some of the advantages of MRO on the cloud that Jagannathan lists are: no capital expenditure related to information technology (IT) infrastructure; no additional IT personnel to administer and maintain the application; a monthly subscription based
payment model; access to the latest version of the product without incurring any of the traditional upgrade costs; anytime, anywhere access; and more than 99% availability via the cloud.

Jagannathan acknowledges that some people may not trust having information offsite, in the cloud.

He says, “Drawing a parallel, the risk involved here is less than the most basic online banking transactions people perform today. Banking is a very personal and the

most sensitive transaction anyone will perform. Thanks to paradigm shift in technology and convenience, paying bills online is a widely accepted norm. This example stands testament to the success and acceptance of the cloud in our day-to-day life.”

For Large & Small Ops
More than 1,500 helicopters are served by Ramco Aviation Solutions globally, Jagannathan notes. The product is being used by more than 60 customers – including airlines, MROs, and helicopter operators. He credits the software’s comprehensive functionality for the helicopter operators as the key reason why.

“In a world where today’s technology becomes obsolete tomorrow, the application should be architected for the Cloud and should have scalability with relative ease,” Jagannathan asserts. “Ramco Aviation Solution as an application has the maturity to handle the requirements of large and small helicopter operators.”

Ramco Aviation Solutions have grown in maturity and now boast a comprehensive list of switches and configuration methodologies, according to Jagannathan, which offer flexibility to both large and small operators for using the same tool at their required levels of operations. By fleet size, Ramco’s largest customer has more than 400 aircraft and the smallest has two aircraft.

“The Cloud offering is a way that a small operator and MRO can benefit from using a large-scale enterprise-wide application like Ramco Aviation Suite,” Jagannathan says. “For low-fare airlines and their operators, Ramco Aviation on Cloud eliminates the need for initial capital expenditure on hardware, software, and data center.”

Instead, it offers a flexible subscription-based billing model at less cost than regular on-premise offerings.

Even the implementation methodology
has been categorized to meet the needs of such diverse fleet sizes, with the processes and people available to run them matched as well.

A very prescriptive template is used for small operators,” Jagannathan says. “We use traditional methods for large and complex operations, appointing various options and processes for a given function.”

For Bob Cox, spokesperson for American Eurocopter Corp. (Eurocopter USA), Ramco’s versatile aircraft management tools “enable improved operational efficiency and, ultimately, bottom line results.”

He states that there are large operators using Ramco currently, but he sees wider adoption as a result of the new collaboration.

“With the partnership established between Ramco and Eurocopter, we expect that smaller operators will also avail themselves of this service,” Cox says.

He notes that Ramco will be tied into the Keycopter American Eurocopter customer portal. This existing e-commerce tool offers an on-line account management system to obtain parts pricing and availability, create and convert quotes to a sales order, place and track orders, and create templates for frequently ordered parts, among other features. It also gives the helicopter operator tools for fleet maintenance and forecasting parts needs.

“Ramco’s cloud-based maintenance software solution is an outstanding addition to our service offering,” says Matthieu Louvot, senior vice president of support and services for the parent company, Eurocopter. “The partnership will bring us closer to our customers’ maintenance operations, enabling us to offer them the best quality of service.”

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