Octave Reliance helps global aircraft manufacturer bring people home everywhere, every time

Key facts:

Company: A global aircraft manufacturer

Industry: Aerospace & Defense — Aircraft Manufacturing

Country: United States

Octave products used: Octave Reliance *(ETQ Reliance)*

Key benefits:

- 6,000+ legacy safety records migrated into one integrated system

- Proactive identification of safety trends to reduce aviation risk

- Streamlined, anonymous reporting increased workforce safety engagement

- Enhanced ability to predict and mitigate high-risk safety issues

The global aircraft manufacturer was one of the first companies to manufacture helicopters for both civilian and military use and provides aircraft to all five branches of the U.S. armed forces, along with military services and commercial operators in 40 nations.

Challenge

The success of the company's business strategy is based on its ability to reliably deliver safe aircraft to customers. At the same time, there is increased customer demand for products that have higher performance and greater capacity than existing models. While there is a defined record of pioneering flight solutions within the company, there's constant pressure to balance safety, quality and innovation. Aircraft failure – and its potentially fatal consequence – are a constant driver for uncompromising attention to detail. Seemingly simple escapes, such as misplaced nuts and bolts, can cause major failures. Factor in the Federal Aviation Authority's requirement for strict FOD (foreign object damage) and the need for tool control in aviation maintenance, the challenges can mount.

Previously, the firm used Excel spreadsheets to track Aviation and Product Safety data. While there was a digital version of the manual quality processes that had served the company for decades, there also was a growing realization that the safety culture needed to be improved. Despite the familiarity that many employees had with these established workflows and tools, it was clear that manual data entry made it difficult to look at safety metrics across the enterprise and gain insight into where safety resources should be allocated.

The biggest focus for transforming the organization's aviation safety processes was changing the way data was managed. Traditionally, resource allocation was based on surface-level metrics tracked in Excel spreadsheets. As product and customer demands increased, it became obvious to the in-house safety team that this wasn't the best way to prioritize safety measures. As a result, the company implemented a Safety Management System (SMS) program within its Aviation and Product Safety department, and sought a safety data management system that would quickly and efficiently generate truly actionable insights and provide a far more accurate view of high-risk items that impact aviation safety than its manual systems were capable of handling.

Besides finding the right solution to solve these identified challenges and pain points, SMS leaders had to prove the financial value of the new system. In addition, there was a defined need to justify the software licenses and annual tech support to senior leadership, mainly because the return on investment (ROI) for aviation safety measures is not always easy to calculate.

"Our customers are forcing us to build products that can fly higher, farther, faster and lift more than any other helicopter. As a result, we are developing aircraft that are doing things that we never thought were possible in aviation before. Being able to manage and mitigate risk is critical. The only way we can do that is to have the data, and Octave Reliance makes that possible for us."

SMS Program Manager

According to the manufacturer's SMS program manager, this was a challenge that needed to be tackled head on. "We know there's financial ROI for improving safety, but it's not like you know quantitatively how many aircraft were saved from crashing because of an SMS solution," the program manager said. "Finding a solution that could provide insights into safety trends — and make the entire organization more proactive in dealing with issues — was essential for driving results, as well as stakeholder buy-in," he said.

Solution

Following the FAA mandate for effective SMS in aircraft design and manufacturing, the SMS team began to aggressively pursue ways to ensure quality across the organization. As a result, this team started looking into dedicated quality management systems (QMS) to satisfy its needs in late 2017 and chose Octave Reliance (formerly ETQ Reliance) as its automated safety management solution.

ctave Reliance provided the company with the data and insights needed to proactively address safety concerns with commercially produced and cutting-edge experimental aircraft. The key, the SMS program manager said, was that the automated software eliminated the process of looking back at historical data and gave the company the power to proactively identify trends in data and predict safety outcomes in advance.

"We know that everything we do has inherent risk. But that doesn't mean we can fly experimental aircraft when they exceed our risk threshold. Being able to see the data in Reliance and predict safety issues based on trend data and analysis across engineering, quality and safety departments lets us mitigate risk to prevent mishaps during experiments and justifies the costs of Octave Reliance," he said.

In addition, every company needs a safe and reliable portal for employees to report mistakes, compliance issues and quality issues. Without a proper reporting system, businesses are likely to become subject to hidden risk or unseen problems that hurt performance over both the short and long term. With that in mind, the program manager said that the implementation of Octave Reliance has given all of the

Quality journey

Manual
Processes to track aviation and product safety data

SMS
Streamline SMS processes increase accountability & safe reporting portal

Proactive
Manage data - identify trends and predict safety outcomes in advance

company's employees an easier and more effective way to participate in the company's safety culture. As a result, employee adoption of and engagement with the safety management process has grown. With the company's highly specialized employees now working together to report safety risks, the company can execute its projects and production requirements more efficiently while maintaining complete visibility into safety operations.

Results

Improved contextual data analysis

The company knew that for data to truly impact safety, it must provide actionable insights into the business. WithOctave Reliance, the company got a solution that makes that possible.

Implementing OctaveReliance has helped the company get more out of its data by getting away from legacy programs that weren't providing insights that improved the business. The manufacturer has recently moved over 6,000 files from legacy databases to Octave Reliance. Having all that historical data within Reliance has helped the organization avoid making the same safety or quality mistakes twice.

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SMS Program Manager

Increased employee safety engagement

Employee safety engagement with an aircraft can be a matter of life and death. To that end, one of the company's key requirements when searching for an SMS solution was enabling the entire workforce to anonymously report safety hazards before any aircraft is delivered to a customer.

The ease of use of Octave Reliance was a catalyst to employee engagement and, for the company, the use Octave Reliance depositor licenses (limited access rights) enable the company to set up a reporting link on its home page that anyone (including customers and thousands of field reps) can use without adding license costs. Today, the company has seen significantly higher employee safety engagement, with more stakeholders than ever before submitting tickets that the firm's safety and quality professionals can review from one central inbox.

Greater business agility with root cause corrective action

Customers are constantly looking for increasingly innovative and cost-effective aircraft designs, which pushes the company to stretch its resources further and further. Traditional manual SMS processes can't scale to meet these increased demands, but Octave Reliance has enabled a new level of agility for the manufacturer.

Thanks to the Corrective Action (CAPA) module in Octave Reliance, the aircraft manufacturer has been able to funnel all SMS data into root cause analysis and corrective action processes which allows the company's engineering teams to easily determine key safety issues and resolve them far earlier in the product lifecycle, limiting project delays and reducing remediation costs.

In addition to root cause analysis, Octave Reliance helps the company allocate its engineering and maintenance resources more efficiently. Octave Reliance ensures tasks are assigned to the right people at the right time and helps track corrective action cases from the moment they're reported until their ultimate resolution. These benefits have contributed to greater business agility by streamlining SMS processes and increasing accountability for safety activities throughout the organization.

This streamlining of required SMS processes has meant that the company can continue the innovative flight solutions that have been the hallmark of the company for nearly 100 years.

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets– for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.