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Driving ROI

The Business Case for an Integrated
Aviation Management Solution

Overall, aircraft maintenance is a high cost activity, in terms of capital equipment, overall spend, and asset downtime[1]. In the estimations reported by the industry of aeronautics, maintenance activities range from 10% to 20% of an operator's direct operating costs depending on the fleet size, age and usage. Because maintenance activities represent such a large portion of operating budgets, organizations across the aviation industry have been working to decrease these costs through digitalization.

Modern, digital, aviation management software provides maintenance tracking, inventory management, and flight operation functionalities in one integrated management solution. The impact of this single platform approach is broad - enabling the streamlining of workflows across maintenance, engineering, fleet logistics, and inventory parts management. With access to real-time service data and fleet insights, more employees can be active in the aircraft maintenance management process, saving time and money. Better communication and data accuracy can drive additional cost savings and performance improvement.

Hobson & Company, a research firm focused on Return on Investment (ROI) and Total Cost of Ownership (TCO) studies, worked with Flightdocs, a best-in-class aircraft management system, to explore these impacts. The goal of this white paper is to highlight examples of operational and business benefits that can be realized with Flightdocs. Research consisting of 10 in-depth interviews with existing customers found that the Flightdocs solution addressed customer challenges and delivered measurable results with a high return on investment.

Based on the ROI analysis, a customer with a fleet size of 3 aircraft valued at $100M, was able to save over $150,000 in the first year with an ROI on the system of 468%.

Flight Department Challenges

Customers interviewed noted that there are consistent challenges with maintenance and operations management. Below is a list of some of the most universal concerns.

Reduce time on maintenance and inventory management, reporting, and paperwork
Managing maintenance and inventory without a best in class aircraft management software solution is very time consuming. Without a common platform and real-time access, departments cannot communicate and create proactive solutions for maintenance, operations, and scheduling issues. As a result, hours are spent resolving questions, generating reports and tracking down the appropriate employees for signatures.

Improve data accuracy
Much of the maintenance and operations activities of a flight department, as well as its asset value, depend on error-free data. Without accurate data, operators run many risks – including substantial fines or a shutdown by the FAA. Additionally, the value of an aircraft is tied to its records. Without solid data, asset value can decrease. Past solutions did not provide enough transparency to ensure that data was correct. Often an operator wouldn't even know their data was wrong until it came time to migrate systems.

Lower the overall cost of flight department activities
Maintenance activities account for a large portion of a flight department's costs. Without proper scheduling, large expenses can occur through unexpected maintenance costs. In addition, since flight department activities are often outsourced, operators find little leverage opportunities unless they can plan and group activities together for a larger work order.

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[1] Aircraft Maintenance Management by C.H. Friend 1992

Customers identified benefits of moving to the Flightdocs software in the areas of increasing operational efficiencies, reducing costs, and mitigating risk / protecting revenue.

REDUCE COSTS

Reduce maintenance spend based on grouping maintenance activities

Real-time, centralized maintenance tracking allows for lower costs on parts and purchases based on ability to plan and group activities and provide batch orders to service providers.

Customers interviewed reported the potential for:

↓ **5%**
REDUCTION in maintenance spend

"This year alone I saved $280K on my maintenance costs because of the way I'm able to tighten my system up. Now I'm able to look at the numbers and forecast out the spend. The year before we saved $400K."

- Fixed & Rotor Fleet, Director of Maintenance

INCREASE OPERATIONAL EFFICIENCES

Reduce time spent managing maintenance and inventory

Flightdocs has multiple capabilities that reduce time spent on inventory and maintenance management. A mobile friendly interface and specialized app for quick access allows real time access for employees. Flightdocs also has complete integration with any current maintenance and inventory API. A user-friendly dashboard with a real-time overview allows for the electronic ability to plan, execute, approve and store maintenance events.

Customers interviewed reported the potential for:

↓ **20%**
REDUCTION in time spent managing maintenance and inventory

"Overall, Flightdocs cuts down my time in front of a computer and increases my time in front of the airplane."

- Corporate Fleet, Chief of Maintenance

Reduce time spent on paperwork

Flightdocs provides centralized document management, communication, and electronic signature capabilities which allows users to reduce time spent on paperwork. A user-friendly interface and mobile access allow for real-time visibility to maintenance and inventory records. The system also has the ability to perform batch-process actions, creating a process to group similar aircraft, maintenance operations, or personnel for large scale updates.

Customers interviewed reported the potential for:

↓ **25%**
REDUCTION in time spent on paperwork

"We don't do physical paperwork anymore on pre-flight or post flight checks – we use the Flightdocs iPhone app. Because the maintenance guys have their iPhone in their pocket, it is so much faster. This has saved us overall 25% of our time."

- Corporate Fleet, Director of Maintenance

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Reduce time spent creating reports

Flightdocs helps users to create customizable reporting and viewing features, including checklists and calendars. It also allows for reliability reporting such as non-routine and discrepancy reporting. As an output, users can generate multiple formats such as PDF or XLS. Users can also export and send reports directly to other departments.

Customers interviewed reported the potential for:

⬇ **50%**
REDUCTION in time spent creating reports

"I am saving 50% of my time on reporting. I was running things once a month, or quarter. Now we don't have to print anything because the filters are so powerful – it's so simple to use."

- Corporate Fleet, Chief Inspector

Reduce time spent communicating across departments

Flightdocs provides capabilities to improve real-time communication across departments and locations including a flight messaging system for simultaneous user updates. The system also has customizable dashboards with instant visibility of inventory and maintenance details as well as electronic task item lists for crews, personnel and maintenance.

Customers interviewed reported the potential for:

⬇ **25%**
REDUCTION in time spent communicating across departments

"Even though we are all in the same building, we were having to talk to each other all the time. Now we are all able to access the schedule online."

- Corporate Fleet, Chief Scheduler

Reduce time spent fixing data errors

Using Flightdocs flight maintenance, organizations reduce maintenance and inventory carrying errors with no data entry duplication. In addition, Flightdocs also has integration with other APIs to ensure all data continues to flow through and update in real-time. An audit during the onboarding process to Flightdocs often turns up errors in previous systems.

Customers interviewed reported the potential for:

⬇ **2 hours**
REDUCTION in time fixing data errors each month

"There was an issue 1-2 times a month where I had to reach out to CAMP to get the data changed. Changing the data is so fast with Flightdocs. I'm probably saving 5 hours plus per month – one issue could eat a whole day on and off the phone and email with CAMP."

- Corporate Fleet, Aviation Maintenance Manager

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MITIGATE RISK / PROTECT REVENUE

Reduce risks of fines / shutdown

Real-time, centralized maintenance tracking allows for lower costs on parts and Flightdocs FM allows its users to keep up to date with evolving industry changes, and receive automated software updates for AMM, AD and SB revisions. Real-time updating on maintenance, duty times and compliance issues also eliminates issues with communication. OEM updates and FAA mandates are also pushed to users through the Flightdocs system.

Customers interviewed reported the potential for:

⬇ **25%**

REDUCTION in the likelihood of a fine (with a fine benchmark of $40K)

"We are all concerned about making sure there is nothing for the FAA to find and I believe the system helps us do that."

- Corporate Fleet, Chief Inspector

Protect asset value

By providing online records and maintenance information, Flightdocs ensures that asset value is accurate and protected. When determining the value of an asset, calculations can be determined quickly with low chance of errors due to the electronic tracking of the associated maintenance and parts.

Customers interviewed reported the potential for:

⬆ **5%**

INCREASE in the value of the assets

"By having the maintenance records electronic and well maintained, it's something that can be transferred when we sell the aircraft very easily. It could represent a 10% increase in asset value."

- Corporate Chief Pilot

Minimize downtime

Online scheduling and dashboards allow employees to optimize the flight schedule. Additionally, managers can maintain appropriate staff levels and resources with real-time data and information about upcoming flights and needs.

Customers interviewed reported the potential for

⬇ **10%**

REDUCTION in downtime across the fleet

"The Flightdocs system has more to offer and is more user friendly – the dashboard is easier to look at. Being able to have information available, with mobile access, has meant we are able to plan and schedule maintenance better. This means the aircraft can fly more. We are probably decreasing our downtime by 2%."

- Maintenance Company Chief Inspector

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KEY ROI FINDINGS

The value of a best-in-class aircraft fleet management software such as Flightdocs is immediate and demonstrable. The following case study illustrates this potential value based on a real, representative cusotmer:

- 5 employees using the Flightdocs system (4 in flight maintenance and 1 manager)
- Annual maintenance spend of $1.8M
- 3 aircraft with a total asset value of $100M

The one year investment in Flightdocs, totaling $39K, generates positive cash flows in 3 months. The return on investment (ROI) is strong at 468%, and the monthly cost of waiting to implement the system is almost $14K. The key financial metrics for the sample organization were calculated by standard methods and are shown in Figure 1 below.

Figure 1: Display of Key Financial Metrics

FINANCIAL METRIC	VALUE
Payback	3.0 months
First Year Benefits	$157,921
ROI	468%

The chart below shows the extent to which each value driver contributes to the total value of the maintenance and flight management software. For the sample organization, increasing efficiencies represent the majority of the value but reducing cost and protecting value are also large contributors.

Chart 1 : Benefits by Value Driver

Mitigate Risk / Protect Revenue 29%

Increase Efficiencies 37%

Reduce Cost 34%
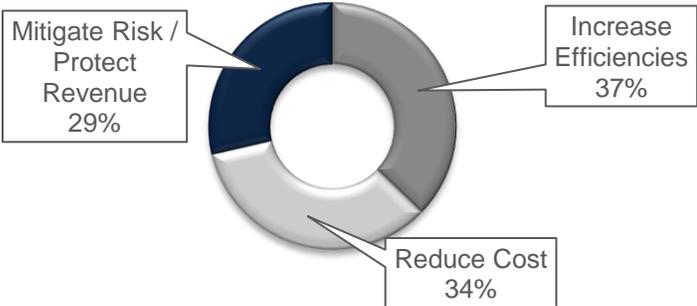
Contact a member of the Flightdocs team for your personalized ROI analysis detailing the applicable sources of value to your organization.

About Flightdocs

At Flightdocs we develop, and regularly enhance, the advanced technology that runs the maintenance tracking, inventory management, and flight operations tools for flight departments across the globe. Our goal is to alleviate flight disrupters and add control and efficiency to the process, so flight departments can safely accept as many missions as possible.

Flightdocs is committed to solving the real-world business problems of fixed-wing and rotorcraft operations, by using a unique blend of innovative technology and impeccable customer support. We do this by listening to maintenance, procurement, operators and other aviation experts, and taking this feedback to the drawing board. The back-end infrastructure may be advanced, but the end user's experience is flawless.

Flightdocs was introduced to the aviation industry in 2003 with the launch of Flightdocs 1.0 Maintenance Tracking software. The early adoption and success resulted in another version and then evolved in 2015 with the introduction of Flightdocs Enterprise, and the launch of Flightdocs Operations in 2019.

About Hobson & Company

Hobson & Company helps technology vendors and purchasers uncover, quantify and validate the key sources of value driving the adoption of new and emerging technologies. Our focus on robust validation has helped many technology purchasers more objectively evaluate the underlying business case of a new technology, while better understanding which vendors best deliver against the key value drivers. Our well researched, yet easy to use ROI and TCO tools have also helped many technology companies better position and justify their unique value proposition. For more information, please visit www.hobsonco.com.