

Taking Control of Aircraft Maintenance Tracking:

How Cloud-Based Solutions Save Money, Increase Safety and Improve Productivity

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A New Solution to an Age-Old Problem

While the current FAA Federal Aviation Regulations (FARs) require that technicians log all completed maintenance items, they do not specify what form these tracking documents must take. Because of this, the variety of compliance practices is nearly as diverse as the types of aircraft we maintain.

In addition to being an FAA regulation, accurate maintenance tracking is vital to maintaining the commercial value of an aircraft. Lost or incomplete records can have a devastating effect on the aircraft's resale value. Additionally, having accurate records helps mechanics understand what has been done and what needs to be done. And, accurate records allow repair operations to be proactive with owners and operators to schedule maintenance events.

When it comes to maintenance tracking today, technicians and aircraft operators have come to rely on everything from simple logbooks, to spreadsheets, to specially created desktop or server-based software programs.

And while the various methods can provide compliance with FAA requirements, each suffers from a common and often critical flaw: they all make it difficult to share and collaborate on this critical information outside of a specific location.

Today's printed or electronic spreadsheet solutions also lack the capability to provide information that helps MROs and owner/operators forecast upcoming maintenance events. This timely information is critical for the efficient planning of not only aircraft maintenance scheduling, but also the evolving needs to hire and train maintenance personnel and order replacement parts.

Savvy maintainers cannot wait until the aircraft is in the hangar to make these critical decisions.

The goal of this white paper is to provide an introduction to an emerging cloud-based maintenance tracking technology that will deliver four key benefits to aircraft owner/operators and maintainers:

- The capability to more accurately and effectively comply with current FAA maintenance tracking requirements
- The capability to more accurately forecast the next occurrence of upcoming planned maintenance tasks
- The capability to automatically connect that information with other critical data pertaining to the ongoing maintenance and safety of an aircraft
- The capability to use cloud-based technology to make it all pertinent information available to anyone, anywhere and at any time.



Understanding the Cloud Makes it All Clear

Aircraft owner/operators and maintainers have been transitioning much of their recordkeeping and tracking to electronic sources for years. But, just like other evolutionary steps, many maintenance tracking software solutions today continue to suffer from some of the same time-consuming drawbacks as their paper predecessors.

For example, even with typical spreadsheet or software programs, a DOM or technician must manually search through regulatory and manufacturer documentation to find the Service Bulletins, Airworthiness Directives, and maintenance instructions for continued airworthiness they need to complete the task at hand. A mechanic can literally spend half their allotted task time researching the information they need before they unlock the first dzuse fastener.

There has to be a better way.

Internet-based solutions, better known as “cloud-based solutions,” have become synonymous with mobile information access and sharing. Why? Because unlike the traditional desktop or local-area-network system, by hosting information in the



cloud, everyone with the correct login information has access to all the most current data, any time, and from anywhere. For example, when a mechanic updates maintenance information for an aircraft, all other users automatically and immediately see that updated information.

With cloud computing, both the application software and the data used by that software are available via the internet rather than being stored locally on a computer or LAN. Once your information is hosted on the cloud, you can use the web browser on any laptop, tablet or smartphone to access the data just like you would any website.

Since all software and data is stored and managed by the cloud-based service provider, users no longer need to be concerned with data corruption, viruses, computer theft, equipment malfunctions, or software glitches.

Cloud-based systems protect your critical data from the risks associated with any number of disasters including floods, storms, earthquakes or long-term power outages that befall local-based computer systems. Once on the cloud your information is safely stored with a secure, cloud-based service provider rather than on a local computer hard-drive or network server at your facility.

Just imagine what this capability means to aircraft maintenance tracking.

Why Maintenance Tracking on the Cloud is Better than What You're Doing Today

That better way is today's Cloud-Based Maintenance Tracking (CBMT) solution: the latest advancement in cloud-based computing solutions for the aviation maintenance industry.

In addition to all the other cloud-based benefits,

by locating an aircraft's current and historical maintenance information on the cloud, personnel anywhere in the world can have instant access to whatever they need. And all of the information is current and accurate.

With CBMT, DOM's and line technicians will also no longer have to waste valuable time searching through isolated documents they need to perform a specific task. Everything they need can be digitally linked to that particular aircraft.

Another benefit to moving your aircraft maintenance tracking and record-keeping to the cloud is lower cost. The typical MRO spends a lot of money for the upkeep of their current computer system's hardware, software and data updates. The cloud eliminates many of those ongoing costs.

Forecasting: The Hidden Benefit to CBMT

While the compliance, regulatory and efficiency benefits delivered by CBMT are obvious, there is one capability that MRO managers are finding to be extremely valuable in accurately forecasting and making key business decisions.

CBMT gives you an instant look at what maintenance tasks need to be completed now, it also shows you a list of requirements coming up next for that particular aircraft.

For example, if you have a business jet in your facility for maintenance; in addition to showing you all the documentation, maintenance history and parts information you need to complete the required tasks, CBMT can also show you, based on actual aircraft usage time, other tasks that will need to be completed within a given number of hours.

With this information at hand, you can proactively contact the owner/operator and schedule

upcoming maintenance events. Additionally, because the information is in the cloud, the owner/operator's Chief Pilot can go online at the same time and view the documents right along with you, thus eliminating the chance for miscommunications.



Having a clear picture of when a job will need completing and when – all based on actual aircraft use – can help eliminate unnecessary aircraft downtime.

Another example is a situation where you see that an increased number of a particular type of aircraft you service are all going to need a particular maintenance task performed at the same time. Forecasting maintenance actions with CBMT can be a valuable tool in helping you and your DOM make the right decisions for scheduling or even hiring technicians.

CBMT: Putting the Assurance in Quality Assurance

In many MROs the Quality Assurance (QA) department has become the single-point for all things regarding maintenance tracking and regulatory compliance. QA monitors everything that gets done on every aircraft to ensure it all gets done right.

Because of their unique and growing sets of responsibilities, Quality Assurance representatives are finding the unique array of capabilities hosted in CBMT extremely beneficial. CBMT gives a QA manager a real-time, all-the-time, picture of where an aircraft is in its maintenance lifecycle. In addition, they have the added assurance of knowing that every person and every part that comes in contact with a particular airplane or helicopter follows the same information procedures.

CBMT: The DOM's New Best Friend

Whether you work in a large MRO or a small, a three-person shop, the DOM is responsible for every step of a maintenance task, including collecting information, scheduling mechanics, and ordering replacement parts for every airplane they maintain.

Once the task is completed it's their responsibility to make sure all work was performed, tracked and properly signed-off. And you need to do it all in the shortest, most efficient way possible.

The flexibility, accuracy and consistency of computer-based maintenance tracking makes a DOM's job a lot easier. By linking all critical maintenance and regulatory information together, the DOM can quickly see the status of any maintenance task for any aircraft. Now, multiply that level of efficiency by the number of aircraft in the shop. The savings add up quickly.

In addition to simplifying maintenance tracking and documentation for each aircraft, CBMT also takes a lot of the work out of planning the use of on-hand spares. Also, new-generation CBMT is very helpful when it comes to tracking the history of the parts that are removed and replaced as well as those pulled from the shop's stock or from other aircraft.

CBMT also allows you to track the certification

status of any critical tools and relate that certification directly to the work performed. When was a tool last certified and what aircraft has it been used on? Should that ever arise during an FAA audit, you will have an instant answer because all that information is available in CBMT.

There is no isolated task when it comes to aircraft maintenance, and today's new-generation CBMT gives you the capability to keep track of them all with unequalled ease, efficiency and accuracy.



CBMT: The Must-Have Tool for Technicians

While the typical mechanic on the shop floor may not worry too much about project planning or the availability of parts, they do need access to accurate aircraft history and the most current maintenance instructions and regulations. CBMT delivers the exact information they need right to their location – reducing the time spent finding information and verifying that the information is current and accurate.

Mechanics will also benefit from the standardized way CBMT delivers all this information. Every task is based on the manufacturer's maintenance program, but CBMT also gives maintainers the capability to customize a particular practice to meet internal shop procedures or aircraft

configuration, or even to share knowledge on a specific task with other mechanics. Once the process is set, it remains standardized and consistent.

Additionally, CBMT gives technicians the option to take a photograph of a particular situation and digitally attach it to that aircraft's maintenance file. For example, if he finds some damage, he can record it before making the repair in the event there is a question about it at a later date. Even if the aircraft's owner/operator is across the country, they can instantly see the work being performed on their aircraft.

ATP Maintenance Tracking: The Goal and the Commitment

ATP's mission has always been to provide information solutions that improve safety and productivity for aircraft maintenance operations. The vision of ATP's CEO, Charles Picasso, is to create a single, cloud-based portal where aircraft owner/operators and maintenance professionals can find all the current, accurate and approved information they need to ensure the ongoing compliance and safety of their aircraft. And, to make that information "smart" by connecting it to aircraft maintenance processes.

ATP's Cloud-Based Maintenance Tracking is the next big step in achieving the goal of unifying data and technology in a way that makes it virtually seamless for an aircraft technician to locate the technical information they need to perform any task at any location.

ATP's Cloud-Based Maintenance Tracking solution delivers all of the capabilities, flexibility and functionality you need to comply with FAR Par 43's record-keeping requirements, with the obvious benefit of cloud-based redundancy and security.

But, these capabilities are just the beginning of

the benefits that ATP's CBMT will bring to your business.

ATP is maximizing the potential of CBMT.

ATP has taken the capability for CBMT to link information to a particular aircraft to the next-level. As a service partner with most of the major airframe, engine, propeller and component manufacturers, ATP's solutions provide maintainers immediate access to the actual mandatory technical and service publications.

When an AD, SB, maintenance publication update, or new regulations are issued, it is immediately linked via CBMT to every affected aircraft's maintenance tracking record.



Owner/operators and maintainers no longer have to waste time each day searching out this vital information. Just view the dashboard in ATP Maintenance Tracking and the most current information is displayed for every aircraft you manage. Users can also setup alerts to notify them of changes, new events, or upcoming maintenance tasks.

Another automated function that is unique to ATP's CBMT is the technology's capability to gather all necessary maintenance instructions and documentation and link it directly to the next required task.

So instead of a DOM or mechanic spending hours searching through maintenance manuals and updates ATP's CBMT does it all automatically. And, again, because of ATP's partnership with leading manufacturers, all the technical materials are the most current available.

ATP's CBMT can give everyone involved immediate access to all the proper and correct information regarding any maintenance task on any aircraft they service. There is no extra time wasted searching or verifying. This greatly increases productivity and decreases the possibility of mistakes.

ATP CBMT: Part of ATP Aviation Hub™ cloud-based maintenance services.

From the initial scheduling of tasks, through to the research of instructions, to the final logbook entries and inspector signoff, the ATP Aviation Hub suite of capabilities streamlines and improves maintenance workflows and processes with a host of capabilities including anywhere, anytime access to ATP® Libraries, ATP Parts, ATP Maintenance and the popular AskBob™ AMT Community.

Subscribers to ATP's growing array of online and cloud-based services have access to the industry's most trusted and current maintenance information through one simple and intuitive web browser interface. All together it makes the ATP Aviation Hub Cloud Application an indispensable tool for the efficient and cost-effective maintenance of general and business aviation aircraft and helicopters.

To sign up for a full demo of ATP Maintenance Tracking, visit www.atp.com/maintenance

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