

TRAX Mobile Maintenance at Aviation



This case study summarizes how Jazz Aviation implemented a successful mobile and paperless maintenance program. It focuses on some key aspects such as Electronic Task Card signoff and Production Control, all linked to their main Trax Maintenance & Engineering software system. Jazz audited their work practices using Lean Six Sigma and built a business case to move from desktop-oriented and manual processes to an agile, mobile, data-synchronized and paperless solution. For the detailed Jazz Case Study that was published in the AircraftIT MRO Sept/Oct 2017 eJournal, use this link: https://tinyurl.com/yca3c6vh.

Jazz serves seventy destinations in Canada and the United States. Along with operating flights and maintaining the Air Canada Express fleet, its Jazz Technical Services (JTS) division is dedicated to third party heavy maintenance, repair and overhaul (MRO) of Bombardier aircraft. The fleet of 117 aircraft includes Dash 8s and Bombardier 8400s and CRJs

Maintenance systems are critical to any airline / MRO's operations, and Jazz knew that going mobile and paperless was key to efficiency and savings. They

decided to implement the new Trax Mobile Suite iOS solutions now to take advantage of technology

gains for labor savings, quality, automation and reduction in downtime.

In line with Sabena's ambitious and forward-looking plans, the company is focusing on connected maintenance. Sabena most recently selected TRAX eMRO software. eMRO is a web-based, deviceagnostic ERP solution that keeps users connected from where ever they work. Combined with their plans to implement the web-based eMobility Production Control and iOS TaskControl apps, Sabena plans to increase efficiency, lower costs and overall improve productivity by going paperless and mobile.



"With the maintenance optimization gained from the use of the Trax Production Control and TaskControl apps, Jazz now has reduced downtime, automated processes, optimized utilization of manpower, and improved quality. In the two months since we have implemented the Trax Mobile Suite of products, we've seen huge savings – as much as half a million dollars." — John Hensel, Manager of Business Systems Integration and Development, Jazz Aviation

Jazz Lean Six Sigma analysis of limitations and drivers for change pointed to some of the following:

- -Too many manual processes
- -Time lost due to AME walk time to work stations
- -Gaps in Task Card projected and actual hours
- -Rework due to panels reopened to complete tasks
- -Crew Chiefs focused on paperwork, not supervising
- -Intra-shift communication problems

The maintenance optimization roadmap called for building the perfect Task Cards in Trax. This included removing duplications, improving man-hours information, automating the flow of checks, and review of Work Order Task Card / Non-routine flows.

The implementation of the Production Control application allowed Supervisors and Crew Chiefs to optimize man power assignments and utilization, as well as Task Card planning and recovery from exceptions. A heavy maintenance plan can now be optimized in less than 15 minutes.

Rolling out the TaskControl iOS app to AMEs resulted in real-time data entry, reduced walk time, recording of real-time labor capture, and reduced paper usage.

A primary benefit derived from TaskControl is the move to digital signatures and elimination of paper. Signoffs comply with Transport Canada AC 571-006 and FAA AC120-78A. Jazz now has 95% digital signatures and 5% dirty fingerprints on its Task Cards. Records can now be audited electronically and the audit failure rate is now below 1%. This has resulted in a huge savings of half a million dollars alone in the short time since the mobile implementation.

Having documents and manuals on a tablet allows for offline access at the point of work for the mechanics, thus resulting in significant time savings.

Real gains have been achieved in business intelligence analysis, performance, and processes. Jazz now has a clear picture of required man hours per task since it is capturing real-time log on / log off of Task Cards.

The apps did not require a long period for implementation. Due to being fully integrated with the Trax M&E system, the functionality was already familiar to the users, thus limiting the amount of training required. After some cycles of user acceptance and performance testing, the apps were rolled out to the users. Given the need to handle so many devices, John Hensel explained how Jazz "thought it would kill IT, but instead it was a nonevent". The iPads now only accounted for 350 of the 22,000 IT tickets incurred annually. It typically takes 15 minutes to set up a tablet for a user — and takes a little longer if maintenance manuals are loaded.

Jazz decided to go with the Trax Mobile Suite of apps after seeing how intuitive and well-matched they are to specific maintenance tasks for AMEs and Crew Chiefs. The fact that the apps are fully offline capable and integrated with their Trax M&E system only increased the cost savings and reduced the labor time, making it an easy choice.

Jazz intends to continue its "Journey to Paperless" with plans to implement the Trax QuickTurn app which allows the mechanics to conduct the necessary gate activity for aircraft defect handling and other functions. Trax offers multiple apps along with its new eMRO web-driven Maintenance & Engineering ERP solution. The apps include: TaskControl, QuickTurn, AeroDox, CabinLog, PilotLog and the web-based Line Control, Shop Control and Production Control. Trax plans to continue increasing its iOS apps offerings for customers.

Trax eMobility Apps:

- > Increased Savings on Labor and Costs
- → Fully Integrated with Trax M&E Software
- → Truly Mobile Off-line Capable iOS Apps

