General Requirements
For a Fleet Maintenance Management System

Office of Strategic Initiatives & Support Services (SISS)

White Paper
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Section 1 Introduction

The Company

Global Aviation Services is a certified ISO 9001 maintenance service provider responsible for ensuring all of its customers' 15,000 vehicle and airport ground support equipment assets are in good working condition, so that customers are provided with the most efficient and cost effective service. The company serves 150 airline industry related customers at more than 60 airports across the United States.

The Challenge

Global Aviation Services’ current maintenance system, must be enhanced or replaced in order for the company to be able to maintain its edge over competitors and to satisfy its existing customers.

Project Status

Recently, Global Aviation Services made the decision to evaluate its existing maintenance management system. The company is considering an alternative solution to better match its requirements and which would be used as a universal maintenance system in all of its locations.

Global Aviation Services is working to define current processes, distinguishing between the wants and needs of features of a new maintenance system, as well as determining requirements for implementation of a new system in all of the company’s locations.


Project Goal

The goal of the project was to obtain a single maintenance management system that would provide a global view of what was happening in all facilities across the organization. Replacement of the incumbent system would help Global Aviation Services remain viable in an extremely competitive market and ensure service reliability and superior asset utilization for its customers.

Therefore, a flexible, browser-based Fleet Maintenance Management System (FMMS) software would be a perfect fit for Global Aviation Services and its customers.

The system should be capable of automation. Maintenance work orders should be automatically created for equipment identified by the customer as requiring attention. Additionally, the system should be able to create integrated work orders for equipment requiring pre-trip maintenance.

Further, by having an automated Fleet Management Information System (FMIS) incorporated into the FMMS, Global Aviation Services would be able to identify data such as a vehicle’s identification number (VIN), year, make, model, color, engine, fuel type, and gross vehicle weight rating (GVWR). The FMIS portion of the system would enable the tracking of the cost per hour of the equipment, better management of spare parts inventories, and enhance a shop’s ability to plan employees’ work schedules to make the best use of personnel time and efforts.

The FMMS also needs to be able to integrate with Global Aviation Services’ and its customers’ enterprise systems (such as Ebris, APOSS, FleetFocus, DataStream, Telogis (Telematics), as well as with UltiPro, Comdata, and the Corporate Accounting system. This integrated solution should track equipment movements, labor and part costs, and spare part inventories. Moreover, the proposed system would help to reduce duplication of data entry into multiple systems. As a result, the proposed FMMS would increase efficiency; lower operating costs, and improve profitability.

The goal of this white paper is to outline to suppliers or developers the general requirements that Global Aviation Services has for a fleet maintenance management system.
Solution Overview

Electronic Data Collection

With the proposed FMMS in place, many of Global Aviation Services’ maintenance technicians no longer have to complete paper work orders as they will be trained to use the new electronic handheld devices which have been seamlessly integrated with the FMMS.

These devices would include barcode scanners, custom screens for pre-trip information, telematics, work orders, parts availability, and even cell phones when remote maintenance is performed off Global Aviation Services’ premises.

Currently, employees use more traditional paper work orders. Using revised coding, the proposed FMMS will record failure reasons and action codes, using the VMRS 2000 coding, will allow for greater technician efficiencies, predictive maintenance, and the identification of repeat breakdowns and high maintenance cost assets to be utilized in future procurement and disposal decisions.

Planning and Visibility of All Maintenance Activities

Employing the proposed FMMS’s powerful capabilities, the Global Aviation Services maintenance regime will be reorganized to utilize a central planning process (versus individual effort) to coordinate each location, enabling advanced planning and notification to the customer of predictive and preventative maintenance (PM) and associated parts fulfillment weeks before the actual work is completed.

Critical out-of-service information and PM statuses for each type of equipment would be able to be viewed for every shop or location using a single dashboard on the proposed FMMS home page, providing instant global visibility of any un-scheduled, scheduled, or past due event.

This real-time digital dashboard would include: Asset Counts, Vehicle/GSE Out-of-Service Rates, Work Order Status, Labor and Parts Costs, Age of Equipment, Driver/Operator Error, Accidents, and Warranty Claims.

Reporting

Management and customers should have 24/7 access important up-to-date data on efficiency statistics including breakdowns, utilization and other Key Performance Indicators (KPI’s). The database of the proposed FMMS should allow for standard reports to be queried, including dashboards, as well as data to be easily extracted by data mining software, so that the company can turn the raw data into useful information using business intelligence reporting writing software. This will allow for exception reporting, as necessary, and analytic tools and query capabilities to support data analysis.
Section 4 Benefits

Key Benefits

The proposed FMMS fleet management information system provides Global Aviation Services with updated technology, allowing the organization to complete maintenance tasks in a more efficient manner.

An FMMS which meets the general requirements stated in this paper will provide instant global visibility of KPIs (Key Performance Indicators) and the status of all assets which Global Aviation Services maintains.

The proposed FMMS will improve supply chain effectiveness by saving the company time through improved planning of scheduled work and by ensuring that parts inventory matches the work plan.

An automated system instills accountability while, at the same time, increasing efficiency by eliminating wasted resources.

In addition to these benefits, the proposed FMMS ultimately lowers Global Aviation Services’ operating costs and assists customers with decisions such as equipment replacements.

By utilizing the proposed FMMS as a universal maintenance management system, Global Aviation Services will be able to maintain its competitive edge and continue to make progress in obtaining its strategic initiatives.
**Conclusion**

Global Aviation Services is determined to utilize a maintenance management system that presents a significant opportunity for the company to be able to best leverage its other resources to satisfy customers, protect revenue, and maintain its competitive edge over other industry players. This paper outlines the general requirements for the system.
References

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