

Reliability Summary

Specify Input Parameters

Airplane Reliability Sum

Fleet ATA Summary

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Airlines can now create a customized, prioritized list of improvements in minutes online.

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Fleet Reliability Solutions Tool **Enables** Airlines to Find Improvements

Boeing has introduced a new tool on the Web portal MyBoeingFleet.com that allows airlines to perform their own fleet reliability analyses and determine the cost of schedule interruptions. Results are available instantly, and analyses can be repeated at any time.

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Historically, Boeing has performed airline fleet reliability analyses at the request of airlines. However, the analyses frequently became outdated due to the ever-changing nature of the industry. In addition, the quality of these analyses was dependent on the availability of the experts required, the time available for analysis, and Boeing's understanding of each airline's requirements.

In response to requests from operators, Boeing has developed a new tool that enables airlines to conduct these analyses themselves. This article introduces the Fleet Reliability Solutions Tool, its basic operation, and how operators can benefit from using the tool. The tool is offered free of charge.

THE FLEET RELIABILITY SOLUTIONS TOOL: AN OVERVIEW

The reliability tool allows an airline to explore reliability information for its airplanes during a specific period of time. An airline can compare its reliability to overall fleet reliability, understand the cost of schedule interruptions, analyze solutions from Boeing, and prioritize service bulletins based on impact to its fleet.

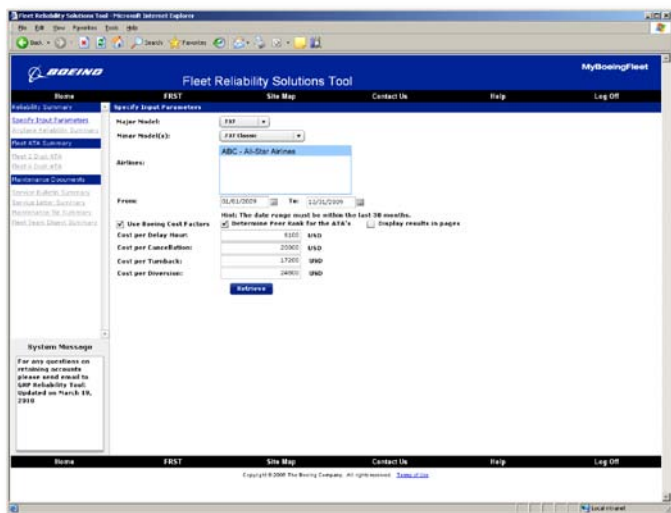
By combining fleet reliability data with service interruption data and available improvements, an airline using the tool can create a customized, prioritized list of improvements in minutes. The airline can regenerate this list anytime completely on its own.

The Fleet Reliability Solutions Tool eliminates the problems associated with performing labor-intensive reliability airplane fleet analyses using dynamic data, which can result in analyses that are typically valid for only a short time.

The tool is available for the 717, 737, 747, 757, 767, 777, MD-11, MD-80, and MD-90. It will support the 747-8 and the 787 when they enter service. The tool is available to any operator that regularly submits its reliability data to Boeing, and access is granted automatically.

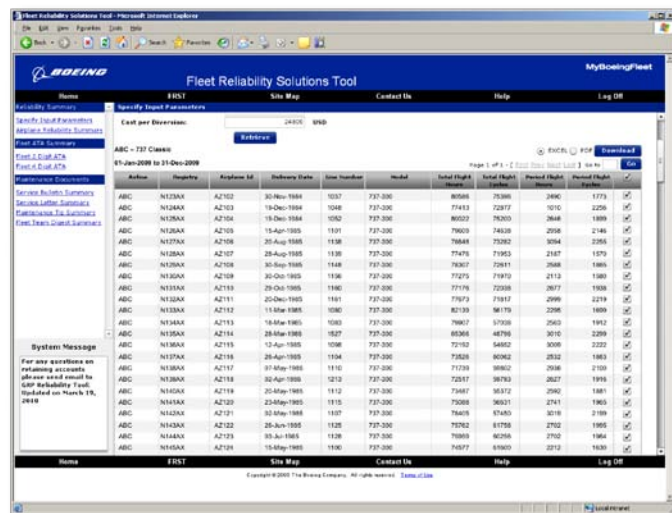
Figure 1: Fleet Reliability Solutions Tool

Each screen steps the operator through the process of definition and use of the analysis. Subsequent screens allow the operator to look at general reliability trends and their impacts or the specific solutions for fleet reliability.



Step 1: Specify input parameters.

Specifying input parameters defines the fleet that the operator would like to analyze. (Operators can review only their own airline data.)



Step 2: Select airplanes to include in analysis.

An operator can specify exactly which airplanes in its fleet it would like to include in the reliability analysis. Results can be shown using two- or four-digit ATA chapter data.

HOW THE FLEET RELIABILITY SOLUTIONS TOOL WORKS

The reliability tool integrates data extracted from existing sources to display the service documents Boeing has available to address the airline's reliability concerns. Data sources include:

- Airplane data from Boeing's internal database, including owner, operator, and registration information.
- Fleet Team Xchange recommendations compiled by Boeing.
- Boeing service bulletin completion records supplied by operators.
- Airline reliability data from the Boeing airplane reliability and maintainability database. (Airlines need to submit their reliability data to Boeing in order to be able to use the reliability tool. They can submit data as members of the In-Service Data Program or

through their Boeing Field Service representatives.)

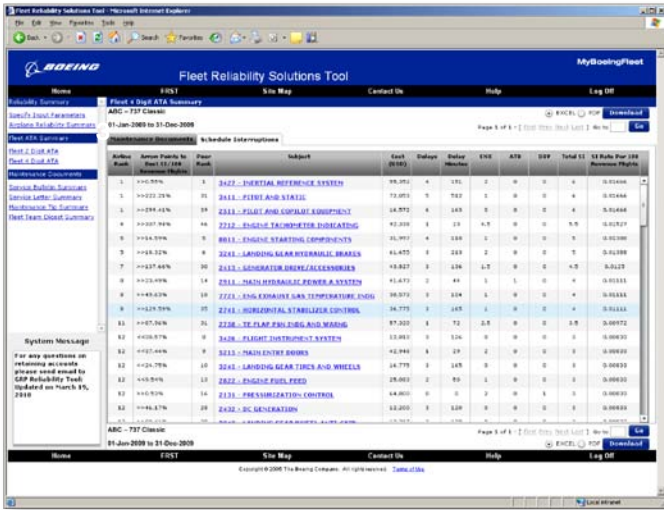
- Economic analysis data, including schedule interruption costs as calculated by Boeing or the airline.
- Effective Boeing service bulletins, service letters, maintenance tips, and Fleet Team Digest articles.

The Fleet Reliability Solutions Tool automatically links data from these sources, allowing each reliability issue to be associated with the available Boeing service solutions. It also presents a summary of reliability issues by airplane for the period being analyzed. Users can add airplanes to or remove them from the analysis to further refine the solutions based on a subsection of the fleet, down to an individual airplane. This allows operators to quickly understand where to invest their fleet improvement budgets.

Integrated reliability information and available Boeing solutions are displayed in several different report formats that can easily be customized or sorted by a number of parameters, including occurrence, cost, type of schedule interruption, and type of Boeing solution.

USING THE FLEET RELIABILITY SOLUTIONS TOOL

The reliability tool can be accessed by clicking on the Fleet Reliability Solutions Tool link on the MyBoeingFleet.com home page. Each reliability analysis begins by specifying the parameters of the analysis. Parameters include airplane model, analysis time period, and cost factors. The operator has the option of comparing the individual airline's reliability statistics with the overall fleet (see fig. 1, step 1). (Note: Each individual operator's data, including logbook



Step 3: Review summary.

The ATA chapter summary details each service interruption based on its rank within the airline and fleet (determined by the number of schedule interruptions per 100 revenue flights), cost, number of delays, and delay minutes. The summary also shows if the interruption resulted in a cancellation, air turnback, or diversion. Each schedule interruption can be explored in detail — including the logbook entry as submitted to Boeing — to add to the airline’s understanding of the issue. The summary can be sorted and saved as an Excel spreadsheet or a PDF.

information, configuration, and cost data, cannot be viewed by any other operator. Customer data is protected and remains confidential.)

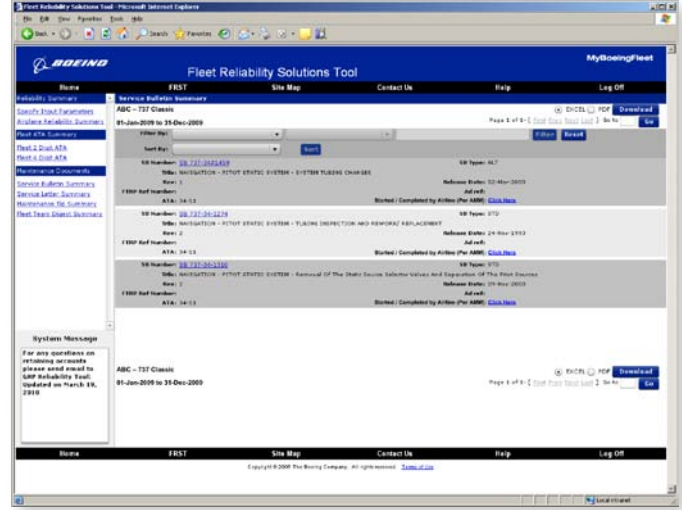
Next, the operator specifies which airplanes to include in the analysis. Airplanes can be selected based on registration number, airplane identification, delivery date, model, and flight hours and cycles (total and during the period being analyzed) (see step 2).

The Air Transport Association (ATA) chapter summary shows costs, counts, comparisons, and Boeing service products available for each service interruption item (see step 3). Service products that address each schedule interruption can then be displayed, filtered, and sorted (see step 4).

ADDITIONAL FUNCTIONALITY PLANNED FOR FUTURE RELEASES

Boeing plans to continue enhancing the Fleet Reliability Solutions Tool based on input gathered from operators. Enhancements being considered include:

- Built-in reporting capabilities, including service bulletin hours and cost report.
- Integration with Boeing Fleet Team Xchange (see *AERO* second-quarter 2010).
- Interactive feedback system to allow customer input.
- Support for third-party documents, including links to supplier service bulletins and supplier service information letters.
- Return on investment tool to allow airlines to choose the Boeing solutions with the highest return on investment



Step 4: Explore service products.

All available service products can be displayed, filtered, and sorted. Each service product title is linked to the actual document on MyBoeingFleet.com. The tool also tells the airline if it has reported to Boeing that it has begun or completed the recommended service bulletin.

based on the reliability data in the reliability tool.

- Preventive solution recommendations based on flight-cycle or flight-hour projections.

SUMMARY

Airlines that provide reliability data to Boeing can now use the new Fleet Reliability Solutions Tool to perform their own fleet reliability analyses, determine the cost of schedule interruptions, view fleet level comparison, and access a direct link to available Boeing service bulletins. The reliability tool is an analysis and navigation tool that customers can use to make informed decisions based on reliability and cost data.

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