Boeing Digital Tools Help Airlines Avoid the Paper Chase

The Boeing Company in recent years has launched major initiatives to apply digital technology across a broad range of information products and services supporting airlines, and is shrinking a mountain of paper in the process.

New digital tools arising from these initiatives help airlines boost productivity and fleet reliability while enhancing safety. Cumbersome paper manuals and microfilmed reference materials are being replaced, as a growing volume of airline support activity now is conducted electronically.

Just how big is the benefit? Lou Mancini, Boeing vice president of Maintenance Services, puts it in a unique perspective. "Picture a stack of paper 24 miles high," said Mancini. "If you stacked up the 310 million pages of technical information we once shipped in a single year, that's how high the pile would reach -- into the stratosphere."

That pile has been steadily shrinking, however. "By the end of 2004 we expect to reduce paper shipments by 90 percent as more and more of our airline customers take advantage of the digital offerings from Boeing Commercial Aviation Services," Mancini noted.

Boeing fleet operators can access millions of engineering drawings through the MyBoeingFleet.com Web portal. Among the digital tools offered to airlines are:

MyBoeingFleet.com

The most successful business-to-business Web site in the air transport industry, this password-protected portal is rapidly becoming a single point of customer entry into Boeing for maintenance, engineering and flight operations data. Millions of engineering drawings, a full range of maintenance manuals, service bulletins, fleet statistics, flight manuals and other documents are accessed quickly via the portal. Updated daily, its contents assure users the latest and most accurate information for safe, efficient fleet operations.

More than simply a repository of data, MyBoeingFleet also is interactive and collaborative. It provides direct access to the Boeing PART Page, where airlines order and track their spare parts shipments. Another feature, known as the FLEET TEAM Digest and Resolution Process, provides a forum for airlines and Boeing to identify, prioritize and resolve technical issues.

Today MyBoeingFleet registers over 4 million hits a month from 25,000 users at more than 550 operators and aircraft servicing firms.

View a video on MyBoeingFleet and take a guest tour of the site.

Portable Maintenance Aid (PMA)

This advanced software reduces aircraft troubleshooting time and is therefore a valuable tool for airline engineering staffs. The PMA consists of key maintenance information contained in a few compact discs that can be loaded into a laptop computer and taken directly to an airplane or installed on a local area network.

Mechanics can quickly pinpoint technical problems in the gate environment instead of making repeated trips to a reference center to look up information on paper or microfilm.

The PMA's advanced search, navigation and networking capabilities can be customized by each airline. Hyperlinks connect related references in text, while intelligent graphics technology connects drawings to text and speeds up fault isolation by instantly displaying the next choice of options at each step in a fault-tree diagram. To date, 85 of the world's airlines have contracted for the PMA, and are experiencing up to a 40 percent reduction in the time required for information search and retrieval.

Crew Information Services

Boeing Crew Information Systems is designing ways to mount the Jeppesen Electronic Flight Bag into the flight deck of the 777 and other Boeing aircraft. Permanent mounting of the system will allow pilots to use the money-saving and safety-enhancing tool in all phases of flight. The Electronic Flight Bag contains digital versions of flight documents that typically are in paper format, including navigational charts, flight operations manuals, logbooks and other key documents.

Boeing is working to integrate the data generated throughout the air transport system -- from the flight deck to the maintenance station to the operations center at the airport -- into a seamless whole. Crew Information Services will create new efficiencies and cost savings while enhancing safety by allowing all parts of an airline operation to use and share data.

A key part of this initiative will be to install, integrate and certify the Jeppesen "Electronic Flight Bag" for Boeing airplanes. This suite of digital tools increases pilots' situational awareness, maximizes efficient operation, and minimizes time-consuming paper manual searches. Functions include electronic navigational charts and flight operations manuals, electronic aircraft and pilot logbooks, aircraft qualification information, and the Enhanced Situational Taxi Awareness tool that shows pilots exactly where an aircraft is on a taxiway. In the future, the Electronic Flight Bag will even include real-time weather and aircraft health management.

"Commercial aviation is obviously a highly competitive business," said Mike Bair, executive vice president of Commercial Aviation Services. "The amount of information, of data, can be overwhelming, and airlines spend a significant amount of money on it. We're committed to helping our customers, so we have taken the industry lead in making this knowledge, information and data readily available in digital formats."

More information on products and services.

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