



The Component Services Program provides operators with an inventory option that minimizes maintenance costs and airplane downtime.

Component Exchange Helps Operators Reduce Costs

Boeing's Component Services Program offers airlines a way to reduce component inventory costs without compromising airplane dispatch reliability. The program provides access to a pool of parts, available to ship within 24 hours of request.

By **Leo Kniestedt**, Senior Manager, Operations, Material Management

Boeing created the Component Services Program as a low-risk method for airlines to reduce airplane maintenance costs. The program provides 24-hour access to a dedicated inventory pool of selected high-value, dispatch-critical components, such as avionics, actuators, and precision mechanical assemblies. The program is available to operators of Next-Generation 737 (in cooperation with KLM Engineering & Maintenance) and 777 (in cooperation with Air France Industries) airplanes.

This article describes the program and explains how operators can make use of it.

PROGRAM OVERVIEW

Boeing created the Component Services Program to give airlines quick, worldwide access to critical components while significantly reducing their inventory, repair, and administrative costs. It's also designed so airlines can stabilize long-term maintenance budget planning.

The program allows participating airlines to shrink their inventory of dispatch-critical, high-value line replaceable units (LRUs). The acquisition of these high-value LRUs can cost an airline millions of dollars annually. Savings from the program can be as much as 30 percent of an airline's component repair and inventory costs.

Customers sign up for a standard term of up to 10 years, paying a per-flight-hour rate that covers a potential exchange of 300 or more different LRUs. The program currently supports 10 airlines operating 777s and 17 airlines operating Next-Generation 737s.

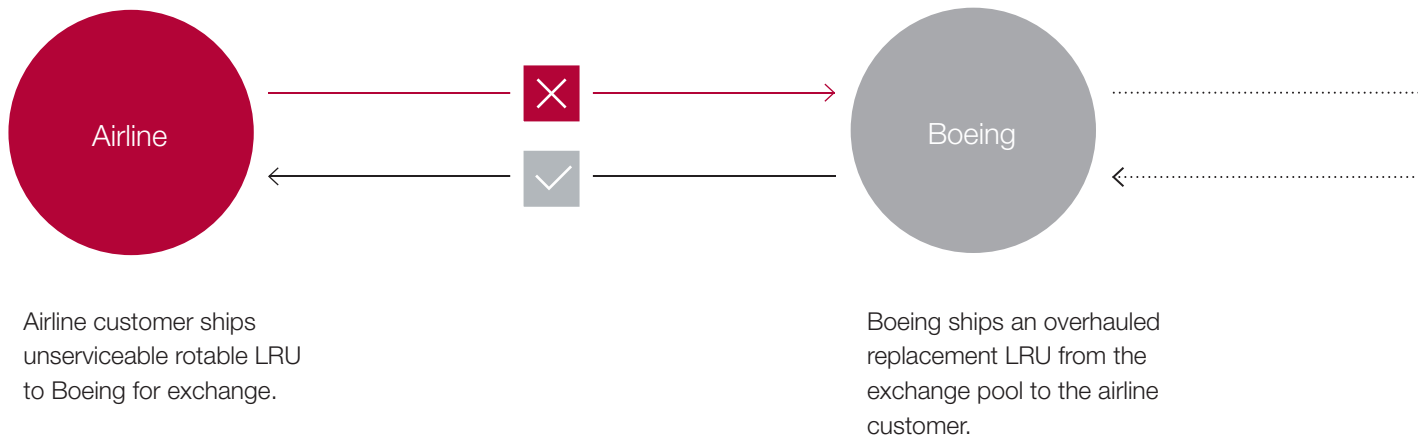
HOW THE PROGRAM WORKS

Under the Component Services Program, a replacement part will be ready for shipment within 24 hours of receiving an order, enabling an operator to replace a faulty unit quickly and easily without having to maintain its own large inventory. Boeing manages the repair of the faulty unit to


Figure 1: The Component Services Program in operation

The Boeing Component Services Program enables operators to exchange unserviceable LRUs for an overhauled replacement.

PARTS EXCHANGE PROCESS WITH AIRLINE CUSTOMER



 Unserviceable LRU

 Overhauled replacement LRU

airworthy condition, upgrades it to reflect the latest design changes, and returns it to the exchange inventory pool, available for the next customer request (see fig. 1).

The program includes a customized recommended spare parts list (RSPL) based on customer data such as mean time between unscheduled removals, fleet size, maintenance base locations, and airplane turnaround time. The RSPL includes dispatch-critical parts and both avionics and non-avionics LRUs in recommended quantities to support each airline's dispatch reliability requirements.

BENEFITS TO OPERATORS

The Component Services Program provides operators with an inventory option that minimizes maintenance costs and airplane downtime. Program benefits include:

- **Reduced provisioning and inventory-holding costs.** The Component Services Program allows airlines to reduce their initial investment in parts inventory. That can result in lower taxes, depreciation, and warehousing costs, in addition to reduced repair and modification costs.
- **Reduced lead times.** Because parts are supplied from the exchange pool, availability is not limited to the airline's own inventory. As a result, airlines are assured that they can always get the required part to support their operational needs without waiting for a part to be repaired.
- **Around-the-clock airplane-on-ground (AOG) support.** Although routine orders are typically ready for shipment within 24 hours of the receipt of the order, AOG orders are handled on a priority, expedited basis.

ONGOING REPAIR/OVERHAUL PROCESS



Step 1:
Unserviceable LRU enters repair/overhaul process.



Step 2:
LRU is repaired/overhauled by Boeing or supplier.

Exchange Pool



Step 3:
Repaired LRU is placed in exchange pool available for next customer request.

- **Improved financial and forecasting performance.** The Component Services Program lets operators spread out high-dollar expenditures by eliminating large initial provisioning expenditures. It also provides operators with lower upfront costs and a lower total cash flow. Flight-hour-based rates enable airlines to more accurately predict maintenance costs based on the flight hours they expect to be flying.
- **Configuration, reliability, and warranty management.** The program manages configuration and warranty for all

covered parts. This frees airlines of significant overhead activity and cost by reducing the time they need to spend evaluating service bulletins.

- **Better management of the component repair cycle.** The program reduces operators' need to carry excess inventory to cover parts that are being repaired. It also cuts down on the time and effort required to manage vendors, approve repair quotes, ship and track parts, and process repair invoices.

SUMMARY

The Boeing Component Services Program enables Next-Generation 737 and 777 operators to reduce their inventory cost while providing quick access to selected high-value, dispatch-critical spare parts.

For more information, contact Leo Kniestedt at leo.g.kniestedt@boeing.com. 