

AIR CANADA IS COUNTING ON SERVICISTICS TO  
STREAMLINE ITS ROTABLE PARTS INVENTORY,  
PLAN BETTER AND CUT COSTS

# Untangling *the Chain*

BY MARK FITZGERALD

**P**arts aren't supposed to chase planes. Supply chain managers aren't supposed to run around with their hair on fire. That's being reactive instead of proactive. That type of behavior points to inconsistencies and poor distinctions between planned and unplanned demand. It also suggests a backdrop of operational inefficiencies, bad data, communication gaps and expenses.

These sorts of problems are industry wide, according to Air Canada's Diane Mazuroski, who has spent 25 years in the aviation industry. "You have to understand the demand streams and how volatile they can be," says AC's senior director-supply chain and vendor management. "You have to be flexible and able to communicate and respond quickly to changes in the schedule and resulting inventory needs."

Air Canada has been working to improve the planning processes, response capabilities and operational performance of its supply and logistics network. In 2006 it outsourced its supply chain operations to ACTS, an independent MRO company that changed its name in September to Aveos Fleet Performance. The airline was charged a monthly fee for the work performed but did not relinquish ownership of its assets.

ACTS controlled AC's inventory and planning but, according to Mazuroski, the company was spending a disproportionate amount of time managing its MRO business and not giving enough attention to the daily activities

related to the carrier's inventory requirements. In June 2007 AC began a gradual repatriation of all supply chain functions from ACTS. The move is expected to transform its operations, improving responsiveness while reducing costs.

"We've incorporated a lot of new processes and restructured the whole supply chain," Mazuroski points out. "Instead of just having the traditional inventory planning group and a purchasing group and so forth, we've actually aligned the whole organization around managing business units."

All planning, management, storekeeping and expediting functions occur in-house but the majority of MRO is outsourced. Some 250 employees manage about \$500 million of maintenance inventory. "Certain things don't make economic sense to own as an asset," she adds. "We don't need to hold a three-to-six-month supply of inventory so we don't need the kind of infrastructure that would house it."

## SERVICE PARTS MANAGEMENT

In December, Air Canada reached a deal with Servicistics, a software firm based in Atlanta, for its Service Parts Management solution, which is expected to help the airline manage its rotatable inventory pool across locations in Canada, the Asia/Pacific, Europe, the Middle East and Africa. The technology aims to reduce operating costs and risk, enhance supply chain responsiveness and minimize AOG time.

"We really try to focus on ensuring that our



**Air Canada plans to place stock strategically in Toronto.**

customers have the right part at the right place at the right time," says Servigistics VP-Solutions Engineering David Stegall. "Air Canada is looking for opportunities and areas across their business where they can drive value and improve the bottom line. They're looking for ways to increase the service level they're providing, and they have a lot of dollars tied up in their rotatable inventory, which needs to be positioned appropriately across their network."

The company expects its solution will reduce AC's rotatable inventory levels and repair expenses significantly. Savings and efficiency gains will be leveraged through data consolidation, environment modeling, planning integration, allocation and action recommendations and detailed reporting capabilities.

"Prior to our entry, Air Canada didn't have

solutions in place to model and plan for the ideal level of inventory that should be maintained across the pool," notes Stegall. "They needed to find a way to properly allocate parts to strategic locations."

Flexibility is built into the solution to accommodate what-if scenarios and facilitate rapid response. Understanding what an accurate representation of demand looks like across the network is a key component of effective planning. "It's not enough to just consider the historical consumption across the supply chain," he says. "You really have to tie it in to the visibility of scheduled activities. So when there's a heavy check, what's the impact on my rotatable inventory and how should I plan in conjunction with that event?"

Another important consideration relates to

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the initial provisioning decisions the carrier needs to make and the probable effect of their implementation. “A lot of our recoverable and rotatable inventory is stocked in Montreal,” says Mazuroski. “But the only reason is because that’s where the warehouse is and that’s the way the business model was built.” In the future, AC plans to place stock strategically in Toronto, which is more central to its operational needs. “We could easily move it from there to Winnipeg for a heavy check or to a line station like Halifax and it would arrive much quicker,” she adds.

Servigistics’ Service Parts Management tool will help AC determine where and when stock needs to be shifted and replenished. “We can still have spares and allotments at every location, but the tool will help us place them strategically and keep an accurate account of our levels,” Mazuroski explains. “We can move parts intelligently and it allows us to take care of an immediate need at a certain location without having to stock quantities there that are larger than necessary all the time.”

#### **TURNAROUND AND CONSISTENCY**

Another advantage of the solution is its ability to monitor turnaround times closely. If a supplier is consistently late with a deliverable, the software can help analyze the problem by processing inputs related to manufacturing and distribution capacities.

“Why spend more money if the tool tells you it’s not an inventory issue, that your vendor is just not performing?” she points out. “I mean if your vendors aren’t meeting turnaround times because of performance problems, don’t go buy more inventory. You need to go fix the problem, and that’s what this tool empowers you to do.”

It also provides enough visibility across the supply chain to quickly determine multiple responsibilities and agendas. Furnishing accurate information about competencies and performance is critical, according to Stegall.

“In striving to plan effectively, Air Canada needs good information about turnaround times from its suppliers,” he says. “From a supplier’s standpoint, you need to have reliable information and understand how it’s used, if

the parts are running at a rate that is expected and acceptable. If I’m a purchaser, I expect my suppliers to respond effectively and maintain a robust schedule so they can hit those turnaround targets consistently.”

Implementing reliable and accurate metrics allows for synchronization of internal processes and coherence across Air Canada’s extensive supply network. The information entered into the parts management tool is just as important as the information that it produces, recognizes Mazuroski. “We know that what goes in is our responsibility,” she says. “So it’s forcing us to gather information, clean it up and put it in one place so that everybody has the same version of the truth. This way we’re all talking from the same data.”

Having this information at the ready also saves a lot of time and facilitates effective communication, decision-making and courses of action. “We’re going to get a lot of information we weren’t getting before,” she adds. “This will help us plan and perform more efficiently. When we’re pulling parts for our pre-induction checks, we will actually have all the information right in front of us. We will have all the parts and won’t have to chase everything down when an aircraft comes in for a visit.”

#### **RETURN ON INVESTMENT**

Implementation of the software is currently underway and it is slated to go live sometime toward the end of the first quarter. Even in the near term the airline expects to see a considerable return on its investment—perhaps millions in savings. “We’re on track to see significant savings sometime toward the end of the first phase of this project,” says Mazuroski. “And that’s everything from the tool generating good information about whether we should avoid certain purchases, or repair or not repair items, as well as making money from the inventory we currently own that’s sitting around and serviceable.”

Another big benefit of the tool is that it substantiates that inventory is being maintained at sufficient levels. “You probably don’t need as much inventory as you think you need,” she adds. “The tool confirms that, and moving

adds. "The tool confirms that, and moving forward we expect it is also going to give us a better ability to plan our inventory needs for both heavy and line maintenance and help us know what we should own, where it should be placed and when and if we should set spares in motion to be repaired."

The carrier also expects the contract it recently signed with Aero Inventory for expendable materials to yield returns. "They'll be our single-source provider for expendables," says Mazuroski. "This reduces the need to have a large procurement department inside your airline." Performance guarantees more than outweigh the catalog price per unit. Plus, it is not necessary to own the inventory and "you won't have to pay for it until you use it." Depending on the contract, the company may even credit an airline back if it stores the inventory inside its facilities.

Air Canada is also in the process of implementing Aeroexchange's order collaboration solution to help manage its pricing and repair process. The system offers repair estimates and ordering and acknowledgement features as well as outbound and return shipping notifications, vendor receipts, teardown reports, completion tracking, invoicing and track-and-trace capabilities.

"It will help us manage our vendor performance better," explains Mazuroski. "We'll be able to streamline the process of vendor-direct shipping from all our locations instead of from just one location."

The Aeroexchange tool also will tell AC what its vendor's turnaround time is and this information will be plugged into Servigistics' solution and processed to render an average TAT to be weighed against the carrier's needs and expectations.

Although Servigistics has been developing and implementing strategic service management tools for many years and has won contracts with such aerospace clients as Embraer, Rolls-Royce and GE Aviation, its agreement with Air Canada marks its official entry into the airline business.

"We picked them because they're really state-of-the-art," acknowledges Mazuroski. "But this is going to be their proving ground. The airline business is unlike any other type of business they've put this model into. But the ROI is quick and we can start reaping savings almost immediately. So if they can help Air Canada do a better job in planning and making decisions and show good value, I think other airlines might be willing to invest in this technology as well."



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