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The rebirth of a Canadian icon

By Brent Jang
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The robust Twin Otter turboprop earned a reputation for being able to operate in any conditions. Two decades after the last one rolled off the line, it's taking to the air again thanks to a small Alberta plane maker

On the shop floor of Viking Air Ltd.'s sprawling Calgary plant, Ken Copiak makes his way from one work station to another, inspecting the aluminum shells of Twin Otter planes as they begin to take shape.

The manager of the final assembly plant sometimes has to pinch himself when he sees the fabled bush plane back in production - 22 years after the last Twin Otter, serial number 844, came off the line in Ontario.

Viking workers are now putting the finishing touches on the first Twin Otter assembled in Alberta, the 845th built in Canada since 1965. Subject to certification from Transport Canada, the turboprop will be delivered next month to Switzerland's Zimex Aviation Ltd., which has earmarked the new-generation plane for oil and gas exploration duties in Algeria.

The delivery to Zimex will kick off a new era for the iconic Canadian plane known worldwide for its ability to handle extreme climates, from jungles to deserts to ice caps. Privately owned Viking plans to capitalize on the demand that never died for a plane that some considered obsolete. It believes that while the Twin Otter may not have made sense for a giant aerospace company like Boeing Co., it can turn into a profitable niche for a smaller player like Viking.

Boeing shut down Twin Otter manufacturing in 1988, just two years after buying de Havilland from the Canadian government. Boeing wanted to stick with its forte of building larger aircraft.

But a funny thing happened on the Twin Otter's way to the aviation museum. Over the years, the plane proved its resilience, with more than 600 of the 19-seat planes still operating around the world. Pilots who fly to remote areas love the way the landing gear can be fitted to suit the environment, whether its wheels for gravel or skis for snow or floats for water.

Bringing the plane back into production has been a test of endurance for Viking, which didn't have many of the original manufacturing jigs - templates used to help produce certain parts and components at de Havilland's Downsview plant in Toronto.

"The reason why we had to make a lot of jigs over was because Boeing figured no one was going to build the planes again and started chopping the jigs up," said Mr. Copiak, 50, a former production supervisor at Winnipeg-based Bristol Aerospace, which was acquired by Magellan Aerospace Corp. in 1997.

Videos shot at the de Havilland plant and old microfilm unearthed clues for "engineering archeology" to rebuild the Twin Otter jigs.

This year, after overcoming a series of engineering delays, the Calgary plant is finally producing the Twin Otter, which carries a list price of roughly \$4.5-million (U.S.). Viking has been able to temper the financial costs of the rising loonie by acquiring certain parts and components in U.S. dollars, including engines from Pratt & Whitney Canada Corp.'s plant in Lethbridge, Alta.

Viking's plant near Calgary International Airport has even become a tourist attraction of sorts for aviation buffs, especially retired de Havilland employees who marvel at the Twin Otter's comeback.

The aircraft would have remained dormant were it not for Westerkirk Capital Inc., which recognized the Twin Otter's rich history and future prospects. In 2003, Toronto-based Westerkirk bought Viking, a long-time supplier of spare parts for de Havilland planes, and in 2006, began studying the merits of manufacturing Twin Otters again. Later that year Viking acquired the rights to do so.

The strategy is to use the same basic, robust design as in the original plane, but to integrate upgrades such as modern avionics in the cockpit. Other updates include improved wiring and lightweight composite material in the nose as well as the exit and baggage doors, said Robert Mauracher, Viking's vice-president of business development.

Plans call for Viking to build seven turboprops this year, a dozen in 2011 and 18 in 2012, said chief executive officer David Curtis, who notes the aircraft maker has a backlog of nearly 50 firm orders. The goal is to sell 200 Twin Otters over the next decade.

"Our order book has been pretty stable, when you consider the economic environment that we've been in," said Mr. Curtis, 49, a licensed pilot.

This year's manufacturing revival is making waves in the aviation world. Zimex's Twin Otter is scheduled to be on display in July during the Farnborough International Airshow, a huge industry gathering held every two years at a sprawling airfield 60 kilometres southwest of London.

Viking's other customers include Air Seychelles, Trans Maldivian Airways, Libya's Petro Air, the United Arab Emirates' air force and the U.S. Army's Golden Knights parachute team.

National flags from around the world adorn the walls of the Calgary plant. The latest one to go up is from Vietnam, where Viking has signed a contract to deliver six Twin Otters to that country's navy from 2012 to 2014.

Breathing new life into the Twin Otter is paying off, said Westerkirk CEO James Lawson. More than 350 Viking staff are now based in Victoria, producing components, while nearly 100 employees are at the final assembly plant in Calgary.

"I'm so excited about the demand for this plane for so many uses worldwide," Mr. Lawson said.

FACTS ABOUT THE TWIN OTTER

History: The Twin Otter turboprop bush plane was first built in Toronto in 1965 at the Downsview plant owned by de Havilland Inc. Production ceased in 1988.

Longevity: More than 600 of the planes are still operating around the world out of 844 originally manufactured.

Capacity: 19 passengers, two crew

Launch customer for new Twin Otter: Switzerland's Zimex Aviation Ltd., whose fleet already consists of 14 "legacy" Twin Otters from the original production run.

Price: \$4.5-million (U.S.)

Range: 1,815 kilometres

Landing gear: Can be fitted with wheels, skis or floats

Wing span: 19.8 metres

Length: 15.77 metres

VIKING AIR LTD.

Head office: Victoria

Final assembly plant: Calgary

Owner: Toronto-based Westerkirk Capital Inc., a private equity firm whose shareholders include the family of Sherry Brydson, niece of the late billionaire Ken Thomson.

Produces: Twin Otter; also a supplier of spare parts for de Havilland planes.

Certificates: In 2006, Viking acquired the "type certificates" for the Twin Otter and other aircraft from Bombardier Inc., which had inherited the certificates after buying de Havilland from Boeing Co. in 1992. Those certificates pave the way for the manufacture and sale of planes.

Quote: "The Twin Otter is a real heritage product. We've restarted production, with help from old interoffice memos, documents, videos, photos and microfilm, and talking to de Havilland retirees." - David Curtis, Viking's chief executive officer.

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