

DEVELOPMENT KATE SARFIELD / LONDON

Beaver to bring back bush aircraft

Canadian manufacturer reveals goal of reviving production of 35-year-old utility lines and refloating amphibian

A Canadian company is planning to restart the de Havilland Canada DHC-2 Beaver and DHC-3 Otter utility aircraft lines, 35 years after production ended.

Beaver Aircraft Canada also intends to breathe life into the four-seat Trident Aircraft Tri-Gull amphibian. This programme, now owned by Canada's Viking Aircraft, was shelved during development in the 1970s due to lack of funding.

The all-metal, single-engined, high-wing Beaver made its first flight in August 1947 and around 1,650 of the six-seat aircraft were built. Of these more than half are still flying, says Beaver Aircraft director Mark Sager.

The larger, 16-seat Otter entered service in 1953 and when production ceased in 1968, around 460 aircraft had been built. Sager says: "We have an overwhelming response from the market worldwide, which is keen to see these rugged short take-off and landing

bush aeroplanes back in service, particularly the Beaver, which is widely regarded as one of the most perfectly designed and robust small utility aircraft ever built."

Beaver Aircraft has acquired Viking Air, which owns the production jigs and drawings for all three aircraft. The Victoria, British Columbia-based company builds spare parts and specialises in the reconstruction and modification of Beaver and Otter designs.

Although development details are being kept under wraps, Sager says the Otter will be offered only with a modern turbine engine. The Beaver will be available in two variants. One will be faithful to the old design, perhaps powered by second-hand radial engines such as the Pratt & Whitney R-985 Wasp, while the other could encompass a number of modifications added to the aircraft over the years such as new avionics, engines and doors. The Beaver is likely to be stretched

to accommodate nine seats, Sager says. The Tri-Gull will also be turbine-powered and is likely to be renamed, he adds.

"There are still a few balls to go through the hoops before we can turn the light back on in the factory. But when that day comes, we expect prototype, flight testing and certification [for all three models] will take about two to three years," he says. The first aircraft to enter

service could be the Otter, followed by the Tri-Gull and the Beaver.

The company is predicting sales of around 600 Beavers, 490 Otters and 365 Tri-Gulls in the first 10 years, Sager says. "There is a large market for the Beaver and Otter from private owners, through to maritime surveillance, and passenger/commuter operators. The Tri-Gull will mainly be targeted at recreational flyers," he adds.



Around 900 Beavers are in service worldwide

SYSTEMS

Lancair adds 400 de-icing

Lancair is to offer a thermoelectric de-icing system on the turbocharged Columbia 400 all-composite light aircraft.

Northcoast Technologies' ThermoWing system has been installed on the prototype and is to be certificated before aircraft deliveries begin in October.

ThermoWing uses a laminate tape of expanded-graphite foil, sandwiched between outer heat-conducting and inner electrically insulating layers, bonded to the leading edges of the wing and horizontal stabiliser. The leading edge is kept warm, melted ice running back on to the shedding zone, where it refreezes. Cyclic heating then sheds the ice.

The Columbia 400 prototype has also been fitted with the Avidyne FlightMax Entegra integrated flightdeck. De-icing will be offered on the "all-electric" 350.

REGULATION

Gippsland seeks level playing field on certification requirements

The Australian Civil Aviation Safety Authority (CASA) has upgraded the type certificate for Gippsland Aeronautics' GA8 Airvan utility aircraft to the latest Amendment 54 of US FAR 23 regulations.

The move ends two years of work by the Victoria-based manufacturer and clears the way for US Federal Aviation Administration and Transport Canada type approval, says Gippsland.

The Airvan was originally certificated by CASA to Amendment 48 of FAR 23 in October 2000, but sales in the USA now require certification to the latest amendments.

Gippsland says the Airvan is the only aircraft in the world certificated to this standard, which requires the manufacturer to demonstrate higher levels of safety, particularly concerning dynamic

structural integrity, cabin fire safety and electrical systems.

The flight testing included a flutter test. Although the Airvan did not need any structural or mechanical changes, it did require interior changes to meet fire resistance requirements, says Marguerite Morgan, sales co-ordinator. The manufacturer also added more detailed information to the aircraft's flight and service manuals.

US certification of the Airvan is expected in "a few months", says Morgan, adding that this will open the door to sales in North America and other countries that acknowledge FAA certification.

The manufacturer's US distributor is holding commitments for 16 for delivery this year. Gippsland is also set to receive an initial order for six Airvans from the US Civil

Air Patrol once the aircraft receives US certification.

Gippsland is frustrated the process has taken so long and complains that the playing field is not level, with competitor aircraft such as Cessnas being accepted by Australia certificated to standards dating from as early as the 1950s.

Meanwhile, Gippsland is hopeful of progress towards UK certification following a visit in February to Australia by a UK CAA delegation. The aim of the visit was to assess regulations and certification processes aimed at developing a technical agreement between the UK and Australia whereby the UK CAA recognises CASA's certification of light aircraft and components. A CAA report is expected in the next few weeks leading to an agreement later this year.