

Canadair Challenger 601-3A

Engines, avionics drive model's evolution

BY ROBERT A. SEARLES

THE CANADAIR CHALLENGER 601-3A was developed in the mid-1980s as the second version of the Challenger 601, successor to the original Challenger 600. Challenger traces its roots to a wide-body business jet design of Bill Lear's. Canadair bought the production and marketing rights to the aircraft in 1976 and named it the LearStar 600. The name was changed to Challenger 600, as the aircraft was designed to challenge Gulfstream's dominance of the long-range business jet market. The first production Challenger 600—powered by 7,500-pound-thrust Avco Lycoming ALF 502L engines—flew initially in September 1979. FAA certification took place in November 1980, and deliveries began in early 1981.



Because the Challenger 600 was underpowered, Canadair soon developed an upgraded version of the aircraft dubbed the 601-1A, equipped with winglets and 8,650-pound-thrust GE CF34-1A engines. A production model Challenger 601-1A flew for the first time in September 1982, and won FAA certification in March 1983. Other organizations that flew the 601-1A included Canada's department of transport (which used the airplane for flight inspection), Canada's department of national defense, the People's Republic of China, and Germany's Luftwaffe—which operated a combination cargo/passenger version and an air ambulance model.

The Challenger 601-3A, which features more powerful 9,220-pound-thrust (with automatic power reserve) CF34-3A engines, was launched in September 1986. A key feature of the 601-3A is the Sperry SPZ-8000, which includes dual flight management systems, dual flight guidance computers, dual digital air-data computers, a five-tube EFIS with multifunction display, and four-color digital

SPEC SHEET

Canadair Challenger 601-3A Specifications

Engines: **Two General Electric CF34-3A turbofans, 9,220 pounds of thrust each (with automatic power reserve)**

Seats: **up to 19**

Max takeoff weight: **43,100 pounds**

Cruise speed: **442 knots**

Balanced field length: **5,400 feet**

Range (with IFR reserves): **3,430 nm**

Wingspan: **64 feet, 4 inches**

Length: **68 feet, 5 inches**

Height: **20 feet, 8 inches**

radar. Honeywell inertial reference systems, a Collins Pro Line II navigation and communications package, and a Fairchild A-100A cockpit voice recorder were standard. The 601-3A also featured a power-assisted passenger door and twin nose-mounted landing lights. The 601-3A won FAA certification in April 1987, and TAG Aeronautics was the first to take delivery of the new Challenger.

Canadair announced a further improved, longer-range version of the Challenger 601-3A in September 1987. The 601-3A/ER, which first flew in November 1988, included a new conformal fuel tank housed in an extended tail fairing, which increased the range of the airplane to 3,600 nm with IFR reserves. The modification, which added 200 pounds to the aircraft's empty weight and boosted the maximum ramp weight to 44,750 pounds, was incorporated on production aircraft and installed as a retrofit starting in March 1989.

A total of 134 Canadair Challenger 601-3As were built between 1987 and 1993. An early model Challenger 601-3A can cost as little as \$2.9 million, while the average asking price for a late-model 601-3A is approximately \$3.9 million. **AOPA**

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