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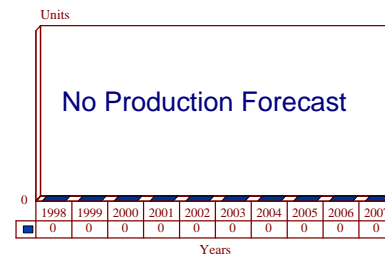
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BAe Jetstream 31 - Archived 8/99

Outlook

- Production ended mid-1994; very active sales/lease market for used aircraft
- BAe pursuing new projects, particularly 70-seat AIR 70 regional jet

10 Year Unit Production Forecast
1998-2007



Orientation

Description. Pressurized 19-passenger, turboprop-powered, regional/commuter transport aircraft.

Sponsor. British Aerospace.

Contractors. British Aerospace plc, Jetstream Aircraft Ltd, Prestwick, Ayrshire, Scotland, UK.

Status. Production completed; used aircraft available for sale/lease.

Total Produced. Total of 381 aircraft sold; all delivered by mid-1994.

Application. Short-range regional/commuter passenger transportation. Military applications include VIP, liaison and operational support for up to 10 passengers, electronic communications and surveillance, ocean and coastal reconnaissance, search and rescue. Corporate variants seat between six and 12 depending upon interior layout.

Price Range. Jetstream Super 31, approximately \$4.5 million, in 1996 constant US dollars.

Technical Data

Design Features. Cantilever low-wing monoplane with conventional cantilever tail section and retractable tricycle landing gear. Aircraft is fabricated primarily from aerospace light alloys.

	<u>Metric</u>	<u>US</u>
Dimensions		
Length overall	14.37 m	47.15 ft
Height	5.32 m	17.45 ft
Wingspan	15.85 m	52.0 ft
Weight (31/Super 31)		
Operating weight empty	4,360/4,415 kg	9,613/9,733 lb
Max T-O	6,900/7,350 kg	15,322/16,204 lb
Capacities		
Usable fuel	1,707 liters	451 gal
Baggage volume ^(a)	1.94-2.53 cu m	68.5-89.5 cu ft

	<u>Metric</u>	<u>US</u>
Performance (Jetstream 31 Only)		
Max cruise speed	478 km/h	258 kt
Certificated ceiling	7,619 m	25,000 ft
Max rate of climb, S/L, MTOW	609 m/m in	2,000 f pm
Range:		
Commuter ^(b)	1,222 km	660 nm
Corporate ^(c)	1,982 km	1,070 nm
Executive ^(d)	1,870 km	1,010 nm

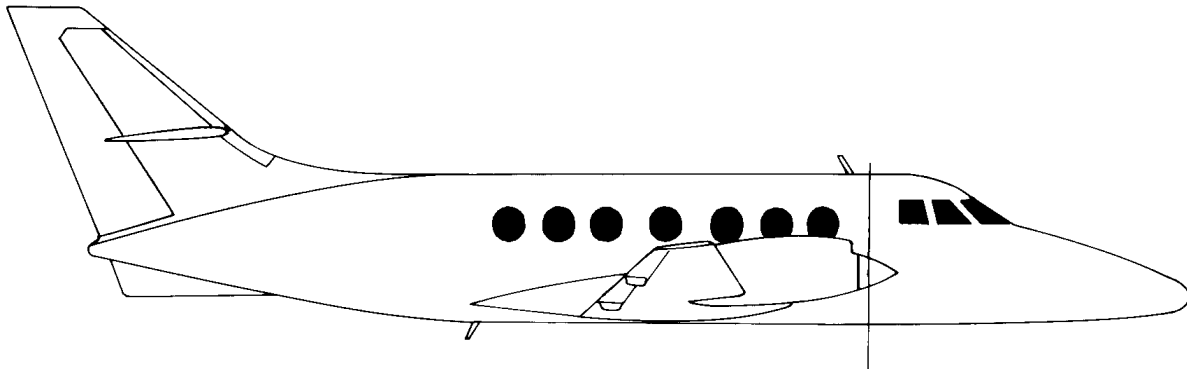
Propulsion

Jetstream 31	(2)	Allied-Signal Propulsion Co (Garrett) TPE 331-10UG-513H turboprop engines flat-rated to 701 kW (940 Shp) each.
Jetstream Super 31	(2)	TPE 331-12 Turboprops, flat-rated to 761 kW (1,020 Shp) each.

Seating

Standard seating for 19 passengers. Executive layout to accommodate 8-10 passengers.

- ^(a) Depending on configuration.
- ^(b) With 19 passengers plus baggage and full IFR reserves.
- ^(c) With nine passengers plus baggage and full IFR reserves.
- ^(d) With 12 passengers plus baggage and full IFR reserves.



BAe JETSTREAM 31

Source: Forecast International

Variants/Upgrades

Jetstream 31 Commuter. Basic model seating 19 passengers and baggage; non-stop range of 1,222 km (660 nm) with full passenger load (full IFR reserves).

Corporate. Variant of basic J31 designed as an 8-10 passenger executive aircraft; carries nine passengers and baggage 1,982 km (1,070 nm) with full IFR reserves. Typical interior is six swivel chairs and three-place divan. Executive shuttle variant for business charter and major companies requiring inter-site transport also offered. With 12 seats, IFR range is 1.0 km (1,010 nm).

Grand Prix. Announced in 1992, based on Super 31, designed to compete with King Air 200. Competitive features include 70 percent more cabin volume, lower

operating cost/fuel burn. Two interior configurations: Formula I with 8-10 seats and Formula III, 12-seat shuttle for corporations with multi-plant locations.

Special. This is intended for military and specialist roles such as airfield calibration, maritime patrol, resources survey, and communications.

Jetstream 31EZ. BAe announced maritime version in 1982. Features a 360-degree scan search radar mounted under fuselage, nav aids for SAR and surveillance ops, increased fuel, observer windows, and searchlight. Aircraft can remain on station up to 5.5 hours and can survey an area of over 207,200 sq km (80,000 sq mi).

Jetstream Super 31. Announced in 1987, uprated, hot/high Super 31 entered service in 1988 with two 1,020-shp TPE 331-12s and increased fuel capacity as well as higher take-off, zero-fuel and landing weights.

Jetstream 32EP. Offering more lift than the 31, this retrofit of the latter was unveiled in September 1997. Features fitting of drag-reducing devices attached to

nacelle/wing joint. Improved hot/high performance permits 800-pound payload increase. BAe's Asset Management - Turboprops (AMT) division performs the retrofit on aircraft to be leased out.

Jetstream 41. Stretched variant of the J31, with 27 to 29 seats, entered commercial service in early 1993. (See separate **Jetstream 41** report for details.)

Program Review

Background. The Jetstream was originally developed by Handley Page in 1966, with a prototype flying in 1967. The company closed in 1969 after building 60 aircraft, but all rights were acquired by Scottish Aviation, which in turn became part of British Aerospace in 1977. In 1978, BAe relaunched the type as Jetstream 31 with Garrett TPE 331-10 engines.

In 1984 the UK Royal Navy ordered four aircraft for observer training. Designated T.Mk 3, these featured a belly-mounted Racal ASR 360-degree radar.

Current Status. The last new-production Jetstream 31 was delivered in mid-1994, but BAe has set up a successful re-marketing arm which has been very active in placing used aircraft around the world. A number of new regional operators, as well as established carriers seeking to extend their routes, have purchased or leased Jetstream 31s from the manufacturer.

Funding

Not available.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Dec	1978	BAe launched re-engined Jetstream 31 program
Mar	1980	Prototype first flight
Jan	1982	First production unit rolled out
Jun	1982	British certification awarded
Nov	1982	US certification
Sep	1988	First Super 31 (the 200th Jetstream 31) delivered
May	1989	BAe launched Jetstream 41
Mid	1994	Production completed

Worldwide Distribution

See Airline Inventories Appendix.

Forecast Rationale

Demand for used J31s continues and BAe's Asset Management - Turboprops (AMT) division is now offering the Jetstream 32EP variant on lease. The 32EP modifications are performed on a retrofit basis to existing BAe-owned J31s and permit an 800-pound

payload increase (see **Variants/Upgrades** section for details).

The J32EP program does not involve new production aircraft; the J31 line closed in mid-1994 and will not be re-started.

Ten-Year Outlook

No further production.

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