
Type Acceptance Report

TAR 2/21B/2

Jetstream Series 4100

TABLE OF CONTENTS

INTRODUCTION	1
FOREIGN TYPE CERTIFICATE DETAILS	1
TYPE ACCEPTANCE APPLICATION	1
TYPE DATA	2
ADDITIONAL NEW ZEALAND CERTIFICATION REQUIREMENTS	4
SUMMARY	7
ATTACHMENTS	7

Introduction

This report details the basis on which Type Acceptance Certificate No.2/21B/2 was granted in the standard category in accordance with NZCAR Part 21 Subpart B. Specifically it aims to:

- (a) Record the airworthiness certification standard used for type acceptance of the applicable model in New Zealand;
- (b) Summarise any outstanding requirements that must be complied with for the issue of a NZ Airworthiness Certificate to any models covered by the Type Acceptance Certificate.

Foreign Type Certificate Details

Type Certificate: BA27 – A-196 – (A41NM)

Issued by: UK CAA – Transport Canada – (Federal Aviation Administration)

Manufacturer: Jetstream Aircraft Limited

Model: Jetstream Series 4100 Model 4112 (Model 4101)

Engines: Garrett TPE-331-14G/HR-xxxH

Propellers: McCauley B/C5JFR36C110x-L114G/HCA-0

MCTOW 24,000 lb. {10,886 kg.} Post-Mod JM41300

Noise Category: FAR 36 as amended by 36-1 through 36-18 including Appendices A, B and C

The certification basis of the BAe Jetstream 41 is FAR Part 25 dated February 1, 1965, as amended by 25-1 through 25-66 (UK Type Certificate), plus amendments 25-67 through 25-71 for the FAA Type Certificate, plus some additional paragraphs at amendment 25-72. This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41, as Part 25 is the basic airworthiness design standard for Transport Category Airplanes called up under Part 21 Appendix C. There are no non-compliances and no special conditions have been prescribed by the Director under §21.23.

Type Acceptance Application

The application for NZ type acceptance dated 22 August 2001 was from the manufacturer's Australian subsidiary BAe Systems, who are brokering the lease deal. The first-of-type examples were serial numbers 41046 and 41049, registered ZK-JSE and ZK-JSK respectively.

Type Acceptance Certificate No. 2/21B/2 was granted on 4 December 2001.

The Jetstream 41 is basically a stretched development of the original J31 to accommodate up to 29 passengers. A new one-piece increased-span wing is mounted underneath the fuselage, eliminating the need for a step over the spar. More powerful AlliedSignal TPE331-14 turbine engines are mounted in new nacelles with increased ground clearance,

and drive advanced counter-rotating five-blade McCauley propellers. Following four prototypes a total of 100 series aircraft were completed between 1992 and 1998 when production was terminated. In 1994 major modification JM 41300 introduced the 1650 shp engine (originally 1500 shp), and increased the MAUW to give better payload-range capability and improved performance.

Origin Pacific Airlines are introducing a fleet of five aircraft, serial numbers 41046, 41049, 41052, 41053 and 41056. These were Canadian 4112 variants, which are similar to the FAA Model, but were approved under Transport Canada Type Certificate No. A-196. All were manufactured in 1995 and originally operated by Air Atlantic in a 27-seat configuration. BAe produced Service Bulletin No. J41-11-025 to authorise conversion to a Model 4101. (The only changes required were to the dataplate and the Flight Manual. According to BAe the fundamental difference between the UK CAA/Transport Canada and the FAA performance standards is that the FAA does not take performance credit for reverse thrust for landing and accelerated stop distance, or for APR [Automatic Power Reserve] during the go-around.)

BAe advised the Jetstream Series 4100 is a JAA certificated product, as detailed in TCDS JAA/25/92-002. This enables all the JAA member states to issue their individual type certificates, which in effect lie dormant unless a J41 is operated in their country. The CAA is a member state and has J41's operating, hence it has an active TC/TCDS [BA27]. It also is the authority of the manufacturer and therefore the J41 JAA team leader [PCM] is also the J41 CAA design liaison surveyor. The PCM is responsible for recommending JAA approval to the CAA for major changes requiring JAA approval. Versions of the J41 are regarded by JAA as modifications, which have to be either JAA approved and/or approved by another authority. BAe identify variants as models and also with a mod. number. Where the other authority is not the CAA, the CAA acts as an intermediary for approval of these mod.s since the JAA does not have any bilateral agreements with other authorities.

Type Data

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents:

(1) Type certificate:

FAA Import Type Certificate No. A41NM Model 4101 issued April 9, 1993

FAA TCDS No. A41NM at Revision No.3 dated October 19, 2000

UK CAA Aircraft Type Certificate BA27 Jetstream Series 4100 issued 23.11.92

Type Certificate Data Sheet No. BA27 at Issue 3 dated March 1996

TC Type Certificate Data Sheet A-196 at Issue 4 dated November 1, 2000

FAA Engine Type Certificate Number E18NE – AlliedSignal Inc.

FAA TCDS No. E18NE at Revision 9 dated February 1, 2000

FAA TCDS No. P15NE at Revision 4 dated May 18, 2001 – McCauley Propeller

(2) Airworthiness design requirements: Already held by the CAA

(3) Certification compliance listing:

Appendix 1 to AWR/049/JS41 – Jetstream Series 4100 Compliance Record

Appendix 1 to AWR/058/JS41 – FAA Certification Compliance Supplement

Jetstream 4100 FAA Imposed Special Conditions:

Width of Main Cabin Aisle [Issue Paper CI-4] – Derived from the (Part 23) J31 the J41 does not have a traditional aisle that meets Part 25 minimum widths. To meet the requirements BAe proposed an offset at each seat row so that the aisle width is measured diagonally. Mitigating factors included a high ratio of exits to pax and the fact the exits are offset longitudinally. The SC included maintaining the projected aisle width of 20” to a height of 43”, and an evacuation demonstration. Also the location and part number of each seat and layout must be FAA approved.

Lightning Protection [Issue Paper SE-1] – The J41 has electrical and electronic systems that perform critical and essential functions. To preclude component damage and interruption of function due to direct or indirect lightning strike a “threat definition” was set, as a basis of demonstrating compliance with the Special Condition.

RF Protection [Issue Paper SE-2] – To protect the Electronic Flight Instrument System and other digital electronic devices this Special Condition provides a threat definition for high-energy Radio Frequency fields.

ATTCS in Performance Credit for Approach Climb [Issue Paper F-4] – BAe requested approval of an Automatic Takeoff Thrust Control System (called Automatic Power Reserve) to meet approach climb performance requirements. This was accepted subject to definition of the critical time interval for the approach climb case, during which time it must be extremely improbable to violate a flight path gradient.

FAA Exemption No. 5587G [Head-Injury-Criteria Compliance - Front Seats] – This was not satisfied for seats immediately behind the front bulkhead and a deadline for compliance of December 31, 2000 was established. BAe developed a Shoulder Harness Restraint System (SHRS) for certification, although this imposed restrictions on front row occupancy. The preferred solution was the Amsafe Aircraft Inflatable Restraint (AAIR) system, which is an integrated lapbelt airbag. Because of delays in development the Exemption was extended until March 31, 2001.

NOTE: SB J41-25-081 covers Installation of Improved Head Pads and a Partition Restraint Lanyard, Kit Number JK412006. SB J41-25-082 covers Introduction of Amsafe Inflatable Restraint System for the Front Row Seats for Head Injury protection, Kit Number JK42997/1. Embodiment of these two SB are acceptable means of compliance with the mandatory requirements of SB J42-25-075 as called up by CAA AD 007-08-98.

FAA Equivalent Safety Findings:

Rolling Conditions [Issue Paper A-10] – An alternative rational rolling manoeuvre was proposed to demonstrate compliance with FAR §25.349. This was also previously accepted for the Jetstream 31.

Overwing Exit Markings [Issue Paper CI-6] – The J41 has a single sign to locate and mark the Type III exits rather than the separate exit markings required by §25.811(d)(2). Equivalent Safety was accepted based on the relatively small cabin diameter and generous provision of floor proximity and emergency lighting.

Nacelle Areas Behind Firewalls [Issue Paper P-8] – FAR §25.1182(a) requires nacelle areas behind firewalls meet the same ventilation, drainage, fire detection and fire extinguishing requirements. None are provided for the Zone 5 landing gear wheel well because the flammable fuel and hydraulic lines are fireproof and covered by a shroud and the air gap between the Zone 1 and 5 firewalls is an effective thermal barrier.

Landing Gear Aural Warning [Issue Paper SE-3] – The J41 system does not meet FAR §25.729(e)(2) because it is inhibited above 145 knots. This is to eliminate nuisance warnings, while still providing protection because the margin over any scheduled approach speed (at MAUW flaps up) is at least 5 knots.

(4) Flight manual: Approved Flight Manual for a Typical Jetstream Series 4100
J41.01 Master Copy No.16 – CAA Accepted as AIR 2759

(5) Illustrated Parts Catalogue: J41 IPC – Revision 07 [CD-ROM – Suite 408]

(6) Maintenance manual and service data for aircraft, engine and propeller:

J41 Aircraft Maintenance Manual – Revision 13 [CD-ROM – Suite 408]
 Jetstream Series 4100 – Maintenance Planning Document – Revision 6, 25 June 2001
 Jetstream Series 4100 – Maintenance Review Board Report – Doc. Ref. J4100/MRB/1
 Jetstream Series 4100 – Service Bulletins (3 volumes)
 Jetstream Series 4100 – Service Information Leaflets
 Honeywell On-Wing Engine MM 72-04-05 – TPE331-14GR/-14HR Rev.3, Apr 9/99
 Honeywell Engine Maintenance Manual Report No. 72-04-06 Rev.4, Jun 4/99
 Honeywell TPE331-14GR/-14HR IPC Report No. 74-04-07 Rev.3, Jun 12/98
 Service Bulletins – MF report No.TPE-SB018 – Aircraft Application: Jetstream 41
 MPC1100-1 – McCauley Series C1100 Turbine Propeller Overhaul Manual (Rev.7)

(7) Agreement from manufacturer to supply updates of data in (4), (5) and (6):

Email from BAe Systems Airworthiness Manager dated 31 October 2001
 Fax – Honeywell TP Production & Distribution Dept. – Ref: TP:JAT:40973:112301
 Invoice No.392 – McCauley Propeller Systems, Jeanetta Muhlenkamp dated 29-11-01

(8) Other information:

Jetstream Series 4100 – Weight and Balance Manual – SA.4-4100/WBM/408
 Jetstream Series 4100 – Manufacturer’s Operating Manual - SA.4-4100/MOM/408
 Jetstream 41 – Engineering Control Specification, at Amendment 15 dated Feb 95
 Model 4101 – Type Build Standard for Type Acceptance in US – JS-4100/TBS.FAA/2
 Type Build Standard for Type acceptance in Canada – JS-4100/TBS.4112/5
 J41 Model 4112 – Variant Build Standard – JS-4100/VBS 049/1
 Summary of Electrical Loads for the Jetstream 4100 Series Aircraft
 Document No. JS-4100/BELA/41023 – Original issued dated 28-Oct-93
 BAe Systems CR-ROM – Sapphire View – Revision 2.18 (With Licensing Agreement)
 BAe Jetstream Series 4100 Master Minimum Equipment List (includes Procedures)

Additional New Zealand Certification requirements

Compliance with the following additional NZ requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, except as noted:

Civil Aviation Rules Part 26

Subpart B - Additional Airworthiness Requirements

Appendix B - All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	FAR Part 25 §25.811(a) Amdt 25-32 Eff Feb 24, 1972
B.2	Crew Protection Requirements - CAM 8 Appdx. B # .35	Agricultural Aircraft – <i>Not Applicable</i>

Appendix C - Air Transport Aircraft - More than 9 Pax

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
C.1	Doors and Exits	FAR Part 25 §25.809(b) Amdt 25-32 Eff Feb 24, 1972
C.2.1	Additional Emergency Exits - per FAR 23.807(b) @ 10.5.93	Meets FAR Part 25 Certification requirements <i>J41 has two Type III overwing exits, one Type I main exit on the forward LHS and one Type II exit at the rear RHS</i>
C.2.2	Emergency Exit Evacuation Equipment – Descent means	FAR Part 25 §25.809(f) Amdt 25-32 Eff Feb 24, 1972
C.2.3	Emergency Exit Interior Marking - Size/Self-illuminating	FAR Part 25 §25.811(e), Amdt 25-32 Eff Feb 24, 1972 FAA Part 25 §25.812(b) Amdt 25-51 Eff Mar 6, 1980
C.3.1	Landing Gear Aural Warning - Automatic Flap Linking	FAR Part 25 §25.729(e) Amdt 25-23 Eff May 8, 1970 <i>See Engineering Control Specification para 32.1.4(d)(ii)</i>

Appendix D - Air Transport Aircraft - More than 19 Pax

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
D.1.1	Exit Types - Shall be per FAR 25.807 @ 29.03.93	FAR Part 25 §25.807 Amdt 25-15 Eff Oct 24, 1967 <i>Doors meet definitions per JAR/FAR 25.807- see ECS Chap 52</i>
D.1.2	Floor Level Exits – Definition	FAR Part 25 §25.807(a) Amdt 25-15 Eff Oct 24, 1967
D.2.1	Additional Emergency Exits - Must meet requirements	N/A
D.2.2	Emergency Exit Access - All Required Exits must have: Passageway unobstructed 500m wide between areas and leading to a Type I or II Exit; Crew assist space; Access to Type III or IV Exit is unobstructed Internal doors must be able to be latched open – placarded	FAR Part 25 §25.813 Amdt 25-17 Eff Jun 20, 1968 <i>For interior arrangement see Figures 25.1 through 25.3 Cabin Layout – Part 2 Engineering Control Specification</i> N/A - No internal doors
D.2.3	Emergency Exit Operating Handles - Markings/Lighting	FAR Part 25 §25.811(e) Amdt 25-32 Eff Feb 24, 1972
D.2.4	Emergency Exit Evacuation Equipment – Descent means	FAR Part 25 §25.810
D.2.5	Emergency Exit Escape Route - Must be slip resistant	FAR Part 25 §25.803(e) Amdt 25-51 Eff Mar 6, 1980 [§25.810(c) not introduced until Amdt 25-72 Eff. Aug 20, 90]
D.2.6	Emergency Lightning (a) Switch Provisions; Uninterrupted Power; Last 10 min. (b) Descent Illumination - Automatic and Independent	FAR Part 25 §25.812(f) Amdt 25-51 Eff Mar 6, 1980 FAR Part 25 §25.812(h) Amdt 25-51 Eff Mar 6, 1980
D.2.7	Emergency Interior Lighting - independent supply; min. illumination; incl. floor proximity escape path markings	FAR Part 25 §25.812(c) & (e) Amdt 25-51 Eff Mar 6, 1980 <i>Floor Proximity Lighting System fitted by Option Kit JK43437</i>
D.2.8	Emergency Exterior Lighting - in effect 30.04.72 or later	FAR Part 25 §25.812(f) & (g) Amdt 25-51 Eff Mar 6, 1980 <i>See Engineering Control Specification para 33.3</i>
D.2.9	Emergency Exit Interior Marking - Clear; instructions - Location signs above routes, by exits, on bulkheads - Meet provisions in effect 30 April 1972, or later. Min. brightness 250 microlamberts	FAR Part 25 §25.811 Amdt 25-32 Eff Feb 24, 1972 Meets FAR Part 25 certification requirements – <i>See Joint Certification Compliance Record</i>
D.2.10	Emergency Exit Exterior Markings - 2” contrasting band; opening instructions in red or bright chrome yellow;	FAR Part 25 §25.811(f) Amdt 25-32 Eff Feb 24, 1972
D.3	Lavatory Fire Protection - Placards; Exterior ashtray; Waste Bin - Sealed door; built-in fire extinguisher; smoke detector system with external warning	AD DCA/GEN/7A (FAA AD 74-08-09R2); DCA/GEN/16 (FAA Part 121 §121.308 Amdt 121-185 Eff April 29, 1985) FAR Part 25 §25.791(d) Amdt 51 Eff Mar 6, 1980
D.4	Materials for Compartment Interiors - T/C after 1.01.58: (b) Manufactured after 20/8/90 - Meet heat release rate and smoke tests of FAR Part 25 in effect 26.09.88 (c) Seat cushions (except flightdeck) must be fireblocked	DCA/GEN/21 [FAR §25.853(a)(1) Amdt 25-60 Eff 16/5/86] – <i>See Joint Certification Compliance Record</i> DCA/GEN/15 [FAR 25 §25.853(c) Amdt 59 Eff 26/11/84] <i>Fire-blocking layer standard option – See ECS Part 2 para 25.2.1</i>
D.5	Cargo and Baggage Compartments - T/C after 1.01.58: (a) Each C or D compartment greater than 200 cu ft shall have liners of GFRS or meet FAR 25 in effect 29.03.93 (c) Liners shall be separate from the aircraft structure	AD DCA/GEN/22 [FAA Part 25 §855 Amdt 25-32 Eff May 1, 1972 & Part 121 §121.314 Amdt 121-202 Eff Mar 20, 1989] <i>N/A – Rear baggage compartment is designated a Class B. - Ventral compartment is designated Class D. Materials used meet FAR 25 Appendix F Part III and CAA AWN 80 – See ECS para 26.4.2</i>

Civil Aviation Rules Part 39

Compliance will be required with all UK Civil Aviation Authority Airworthiness Directives, because the United Kingdom is the State of Design for the Jetstream Series 4100.

Civil Aviation Rules Part 91

Subpart F - Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Shoulder Harness if Aerobatic; >10 pax; Flight Training	FAR Part 25 §25.785 Amdt 20 Eff March 18, 1969 <i>Flightdeck seats have 5-strap inertia-reel harness – See ECS</i>

			§25.1
91.507	Pax Information Signs - Smoking, safety belts fastened		FAR Part 25 §25.791 Amdt 25-51 Eff Mar 6, 1980 <i>See Engineering Control Specification Part 2 para 33.3</i>
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	FAR 25.1303(b)(1) FAR 25.1303(b)(1) FAR 25.1303(b)(2) FAR 25.1303(a)(3) FAR 25.1305(a)(2)/ECS §77.6 FAR 25.1305(c)(3)/ECS §77.4 FAR 25.1305(a)(4)/ECS §77.1	(8) Coolant Temp N/A – Turbojet (9) Oil Temperature FAR 25.1305(a)(6)/ECS §77.1 (10) Manifold Pressure N/A – Turbojet (11) Cylinder Head Temp. N/A – Turbojet (12) Flap Position <i>See ECSpec. para 27.5.3</i> (13) U/c Position <i>See ECSpec. para 32.1.4(d)</i> (14) Ammeter/Voltmeter <i>FAR 25.1351(b)(6)/ECS §24.5.5</i>
91.511 Night	(1) Turn and Slip (2) Position Lights	FAR 25.1303(b)(4) FAR 25.1389/See ECS §33.1	(3) Anti-collision Lights FAR 25.1401/See ECS §33.1 (4) Instrument Lighting <i>See ECSpec. para 33.1</i>
91.517 IFR	(1) Gyroscopic AH (2) Gyroscopic DI (3) Gyro Power Supply (4) Sensitive Altimeter	FAR 25.1303(b)(5)/See JE43013 FAR 25.1303(b)(6) FAR 25.1331(a) FAR 25.1303(b)(2)/See JE430221	(5) OAT FAR 25.1303(a)(1)/ECS §34.4.3 (6) Time in hr/min/sec FAR 25.1303(a)(2)/See JE43028 (7) ASI/Heated Pitot FAR 25.1323(e)/ECS §34.4.1(b) (8) Rate of Climb/Descent FAR 25.1303(b)(3)
91.519	IFR Communication and Navigation Equipment	FAR Part 25 §25.1307 Amdt 25-51 Eff Mar 6, 1980 Dual Dayton-Granger VF10-347 VHF communication systems fitted as standard/See ECS Chapter 34 [Dual Honeywell RCZ-850 integrated comm. units available per Option Kit JE43001A] Dual Dayton-Granger VT10-56 VOR/ILS systems fitted as standard/See ECS Chapter 34 Single Dayton-Granger MB10-128-1 Marker Beacon fitted as standard/See ECS Chapter 34 [Dual Honeywell RNZ-850 integrated nav. DME/ADF units available per Option Kit JE430004] Single Honeywell 7510300-901ADF fitted as standard/See Engineering Control Spec. Chapter 34 Single Dayton-Granger L10-16 DME fitted as standard/See Engineering Control Spec. Chapter 34	
91.523 Emergency Eqmpt.	(a) More Than 10 pax - First Aid Kits per Table 7 - Fire Extinguishers per Table 8 (b) More than 20 pax - Axe readily acceptable to crew (c) More than 61 pax - Portable Megaphones per Table 9		Metair 6600081 first aid kit fitted by Option Kit JE43445 Cabin fire extinguishers fitted by Factory Option Kit JE43442 Fire axe available per Factory Option Kit JE43435 N/A – Less than 30 passengers
91.529	ELT - TSO C91a after 1/4/97 (or replacement)		Narco ELT-910 with remote control fitted by Option Kit JE43030
91.531	Oxygen Indicators - Volume/Pressure/Delivery		FAR Part 25 §25.1441 thru 25.1450 - Cabin oxygen sub-system (FAR Part 121 and UK ANO) fitted by Option Kit JK43414
91.535 Press. A/c	(1) Flight Crew Member On-Demand Mask; 15 min PBE (2) 1 Set of Portable 15 min PBE (3) Crew Member - Pax Oxygen Mask; Portable PBE 120l (4) Spare Oxygen Masks/PBE (5) Min Quantity Supplement Oxygen (6) Required Supplemental/Therapeutic Oxygen Above FL250 - Quick-Donning Crew On-Demand Mask - Supplemental O ₂ Masks for all Pax/Crew - Supplemental Mask in Washroom/Toilet Above FL300 - Total Outlets Exceed Pax by 10% - automatic presentation/manual deployment		Quick-donning masks fitted in cockpit/See ECS Part 2§35.1(d) BAe advise the J41 complies with §91.535 in standard production configuration, except pbe is fitted by Modification Kit. See: SETR/JS41/623 – Normal Oxygen System Definition SETR/JS41/801 – Minimum Oxygen System Definition <i>In aircraft fitted with the minimum system, portable therapeutic breathing equipment is carried in the cabin. When fitted with the normal system, as well as the drop-down masks in the cabin, there are also plug-in points located throughout the cabin where spare masks can be plugged in. These plug-in points therefore override the need for a portable unit and none are carried.</i> N/A – Maximum Altitude for Model 4101 is 25,000 feet
91.541	SSR Transponder and Altitude Reporting Equipment		Dual Dayton-Granger L10-16 ATC Transponder fitted as std
91.543	Altitude Alerting Device - Turbojet or Turbofan		Standard fit as part of Option kit JE43016 Dual Air Data System
91.545	Assigned Altitude Indicator		N/A – Altitude Alerting Device fitted
A.15	ELT Installation Requirements		To be determined on an individual aircraft basis

Civil Aviation Rules Part 125 Subpart F - Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
125.355	Seating and Restraints	FAR Part 25 §25.785
125.357	Additional Instruments (Powerplant and Propeller)	FAR Part 25 is a Part 21 Appendix C standard
125.359	Night Flight	Landing light, Pax compartment Operational Requirement – Compliance as appropriate
125.361	IFR Operations	Speed, Alt, spare bulbs/fuses Operational Requirement – Compliance as appropriate
125.361	SE IFR Requirements – If Applicable	N/A – Multi-engined aircraft
125.363	Emergency Equipment (Part 91.523 (a) and (b))	Operational Requirement – Compliance as appropriate
125.365	Public Address and Crew Member Intercom System	AD DCA/GEN/24 [FAA Part 25 §25.1411(a)(2) and §25.1423 at Amdt 25-70 Eff October 27, 1989] – Rascal fitted per JE43025
125.367	Cockpit Voice Recorder Appendix B.5 requires TSO C84/C123	Universal CVR30 Solid State (with ULB) available per Factory Option Kit JE43018
125.369	Flight Data Recorder Appendix B.6 requires TSO C124	DFDAU to ARINC 573 fitted as standard – Supplies FAR 135.152 Appendix D parameters Fairchild F800 DFDR (with ULB) fitted by Option Kit JE43019 Fairchild F1000 Solid State (with ULB) by Option Kit JE43039

125.371	Additional Attitude Indicator	Fitted as std/See Engineering Control Spec. Figure 31.2/See JE43024
125.373	Weather Radar Appendix B.8 requires TSO C63	Honeywell WXR-650 Weather Radar system available per Factory Option Kit JE43020
125.375	Ground Proximity Warning System Appendix B.9 requires TSCO C92	CAA AD DCA/GEN/13A Sundstrand Mk VI GPWS available per Option Kit JE43037/1
125.377	HUMS	N/A – <i>Not single-engined IFR</i>

NOTE: The Jetstream 4101 comes under Part 125 because it is less than 30 passenger seats, and maximum payload is less than 3410 kg. (Based on a 3062 kg difference between the MZFW of 9707 kg and an OWE of 6645 kg.) BAe advise that the estimated empty weight of 6114 kg in the ECS was overly optimistic, and a typical Manx Airlines Operating Weight Empty was 6645 kg. The ex-Canadian aircraft being imported by OPAL were heavier. (In fact delivery OWE of s/n 41046 was 6459 kg, while for 41049 it was 6441 kg.)

Summary

Type Acceptance Certificate No. 2/21B/2 has been granted to the Jetstream Series 4100 and all serial numbers are now eligible for the issue of a New Zealand Airworthiness Certificate in the Standard Category in accordance with NZCAR §21.191, subject to any outstanding operational requirements noted above being met.

Attachments

The following documents form attachments to this report:

Photographs first-of-type example Jetstream Model 4112 s/n 41046 ZK-JSE
 Three-view drawing British Aerospace Regional Aircraft Jetstream Series 4100
 Copies of CAA, TC and FAA TCDS BA27, A-196 and A41NM

Sign off

David Gill
 Team Leader Airworthiness

Date: 8 January 2002