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# **Type Acceptance Report**

**TAR 96/13 – Revision 1**

**Agusta-Bell AB 206 Series**



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## Executive Summary

New Zealand Type Acceptance has been granted to the Agusta-Bell AB206 Series based on validation of EASA Type Certificate no. RAI A-140. There are no special requirements for import.

Applicability is currently limited to the Models and/or serial numbers detailed in Appendix 1, which are now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with NZCAR §21.191, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.) Additional variants or serial numbers approved under the foreign type certificate can become type accepted after supply of the applicable documentation, in accordance with the provisions of NZCAR §21.43(c).

## 1. Introduction

This report details the basis on which Type Acceptance Certificate No. 96/13 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

## 2. ICAO Type Certificate Details

Manufacturer:           Costruzioni Aeronautiche Giovanni Agusta S.p.A.

Type Certificate:       A-140  
Issued by:             Registro Aeronautico Italiano (RAI) \*  
                              \*See further details under Section 3

**MODEL:**             AB 206 B

MCTOW                 3200 lb.

Max. No. of Seats:    5

Noise Standard:       Not Applicable

**Engine:**            Allison 250-C20 or C20B or C20J or C20R/4  
Type Certificate:      E4CE  
Issued by:             Federal Aviation Administration

**MODEL:** AB 206 A

MCTOW 3000 lb. (with standard undercarriage skids)

Max. No. of Seats: 5

Noise Standard: Not Applicable

**Engine:** Allison 250-C18 or C18B or C20

Type Certificate: E4CE

Issued by: Federal Aviation Administration

### 3. Type Acceptance Details

The application for New Zealand type acceptance of the AB206B was from Mr Ken Demonkos of Heli-Services Limited dated 26 September 1996. The first-of-type example was serial number 8002, registered ZK-HPB.

Type Acceptance Certificate Number 96/13 was granted on 18 March 1997 to the AB206B based on validation of RAI Type Certificate number A-140. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

Revision 1 of this report was raised to add the AB206A variant, and to note the change of State-of-Design to EASA. The applicant was Helicopter Flight Training Limited and the first-of-type was an ex-Austrian Air Force example serial no.8127 registered ZK-HMU. Type Acceptance was granted on 22 February 2012.

The AB206B is a licence manufactured Bell 206B Jetranger, with a certification basis identical to that under FAA type certificate H2SW. Agusta have confirmed the only differences between the two aircraft are Agusta optional kits. The flight manual and the type certificate data sheet for the two aircraft have been compared and found identical in most essentials. The TCDS is only available in Italian and the notes did not appear to equate exactly to the notes on the FAA data sheet. Therefore a translation of the TCDS notes was supplied by Agusta which was reviewed and accepted. The AB206 originally used Bell publications (illustrated parts catalogue and maintenance manual), with a separate Agusta airworthiness limitations manual (unlike Bell which lists the life-limited components on the TCDS). The AB206 Series is therefore to be accepted as effectively an extension of Bell 206B type acceptance, as a variant which uses its own documentation.

EASA assumed responsibility for all European type certificates (except those types excluded under Annex II) as of 28 September 2003. Under EASA regulatory responsibility Agusta has now issued their own AB206 Series MM and IPC to replace the original Bell manuals. (See Information Letter AB206-09-005.)

The AB206A can be modified into AB206B (250-C20 engine) in accordance with Agusta Technical Bulletin No. 206-52. The AB206B (series 8260-8589) can also be upgraded to 250-C20B or -C20J “Jet Ranger III” configuration per Bell Service Instruction No. 206-112. AB206B from series 8731 can have the 250-C20/R4 engine installed by retrofit kit.

#### 4. NZCAR §21.43 Data Requirements

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

(1) ICAO Type certificate:

RAI Type Certificate Number A-140 (now transferred to EASA)

RAI Type Certificate Data Sheet number SO/A-140 at Revision 8 dated 12-7-91

– Model AB 206 A approved 8 August 1967

– Model AB 206 B approved 14 June 1972

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The certification basis of the AB206 Series is CAR 6 on 20 December 1956 and Amendments from 6-1 to 6-4, plus two paragraphs from 6-5, plus FAA Special Conditions dated 2 October 1962 and revised on 8 February 1966. One FAA exemption was granted, which was reviewed and accepted by the CAA. This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41 and Advisory Circular 21-1A, as CAR 6 is the predecessor of FAR Part 27, which is the basic standard for Normal Category Rotorcraft called up under Part 21 Appendix C. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

FAA Conditions Establishing Compensating Factors Providing an Equivalent Level of Safety Under Civil Air Regulations, Section 6.10, for Light Turbine Powered Helicopters. October 2, 1962, revised February 8, 1966. (See Bell Helicopter Report No. 206-190-002, Revision C. Structural Design Criteria for 206A.)

(iii) *Equivalent Level of Safety Findings:*

Nil

(iv) *Exemptions:*

FAA Exemption 595 was granted to the Bell 206A to permit type certification without the necessity of considering the jamming of a control valve in the powered flight control system as a possible single failure. The exemption was subsequently extended to later 206A-1/206B models based on similarity of design.

(v) *Airworthiness Limitations:*

AB206A/B-Series-MPM Maintenance Planning Manual (See SL AB206-04-001)

(3) Aircraft Noise and Engine Emission Standards:

(i) *Environmental Standard:*

Not applicable – not part of the original certification basis.

(4) Certification Compliance Listing:

Not applicable – AB206 type certificate issued on basis of FAA Bell 206 approval.

(5) Flight Manual: Flight Manual AB206B Approved by RAI Letter No. 102/009/T  
CAA Accepted as AIR 2576

EASA-Approved Flight Manual for the Agusta-Bell AB206A  
3<sup>rd</sup> Edition – CAA Accepted as 3203

(6) Operating Data for Aircraft and Engine:

(i) *Maintenance Manual:*

AB206A/B-Series-MM Maintenance Manual

(ii) *Current service Information:*

AB206 Information Letters

AB206 Bollettino Tecnico

(iii) *Illustrated Parts Catalogue:*

AB206A/B-Series-IPC Illustrated Parts Catalogue

Note: See Information Letter AB206-06-004 Interchangeability of Agusta Bell and Bell Helicopter Parts. This states that “*Original Bell Helicopter components are therefore applicable to Agusta-Bell products when supplied or authorised by Agusta only.*”

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

CAA 2171 from Mr F Brusatori, Technical Publications Manager, dated 17.03.97

Access to publications is now provided at [www.myfleet.agustawestland.com](http://www.myfleet.agustawestland.com)

(8) Other information:

E-AB206-250-1 – Operator’s Manual – AB 206/A/A1/B/B1/BIII Helicopter Model



## 5. Additional New Zealand Requirements

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 has been assessed as they are a prerequisite for the grant of an airworthiness certificate.

### 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	<i>To be determined on an individual aircraft basis</i>
B.2	Crew Protection Requirements – CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

##### Appendix E – Helicopters

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
E.1	Doors and Exits	Type Certification under CAR 6 plus over forty years of satisfactory service history is considered to provide an Equivalent Level of Safety to these exit requirements.
E.2.1	Emergency Exit Marking	CAR 6.357(3)

Compliance with the following additional NZ operating 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 91

#### Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Seating and Restraints – Safety belt/Shoulder Harness	CAR 6.605(b)
91.507	Pax Information Signs – Smoking, safety belts fastened	Not Applicable – Less than 10 passenger seats
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	CAR 6.603(a) N/A CAR 6.603(b) CAR 6.603(c) CAR 6.604(a)(1) CAR 6.604(a)(4) CAR 6.604(a)(2)
		(8) Coolant Temp (9) Oil Temperature (10) Manifold Pressure (11) Cylinder Head Temp. (12) Flap Position (13) U/c Position (14) Ammeter/Voltmeter
		N/A – Air-cooled engine CAR 6.604(a)(3) N/A – Turbine engine N/A – Turbine engine N/A – Helicopter N/A – Fixed skid landing gear <i>Compliance to be determined</i>
91.511	Night VFR Instruments and Equipment	<i>Operating Requirement – Compliance as applicable</i>
91.513	VFR Communication Equipment	<i>Operating Requirement – Compliance as applicable</i>
91.517	IFR Instruments and Equipment	Not Applicable – AB206 Series is only approved for VFR
91.519	IFR Communication and Navigation Equipment	Not Applicable – AB206 Series is only approved for VFR
91.523	Emergency Equipment: (a) More Than 9 pax - First Aid Kits per Table 7 - Fire Extinguishers per Table 8 (b) More than 20 pax - Axe readily accessible to crew (c) More than 61 pax - Portable Megaphones per Table 9	Not Applicable – Less than 10 passenger seats Not Applicable – Less than 10 passenger seats Not Applicable – Less than 20 passenger seats Not Applicable – Less than 61 passenger seats
91.529	ELT - TSO C126 406 MHz after 22/11/2007	<i>To be determined on an individual aircraft basis</i>
91.531	Oxygen Indicators - Volume/Pressure/Delivery	<i>Operating Requirement – Compliance as applicable</i>
91.533	Oxygen for non-pressurised aircraft	<i>Operating Requirement – Compliance as applicable</i>
91.541	SSR Transponder and Altitude Reporting Equipment	<i>Operating Requirement – Compliance as applicable</i>
91.543	Altitude Alerting Device - Turbojet or Turbofan	Not Applicable – AB206 Series is only approved for VFR
91.545	Assigned Altitude Indicator	Not Applicable – AB206 Series is only approved for VFR
A.15	ELT Installation Requirements	<i>To be determined on an individual aircraft basis</i>

## Civil Aviation Rules Part 135

### Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
135.355	Seating and Restraints – Shoulder harness flight-crew seats	<i>To be determined on an individual aircraft basis</i>
135.357	Additional Instruments (Powerplant and Propeller)	Basic instruments required under FAR §27.1305 are fitted
135.359	Night Flight	<b>Operating Requirement – Compliance as applicable</b>
135.361	IFR Operations	Not Applicable – AB206 Series is only approved for VFR
135.363	Emergency Equipment (Part 91.523 (a) and (b))	<b>Operating Requirement – Compliance as applicable</b>
135.367	Cockpit Voice Recorder	N/A – Only for 2-crew helicopters with more than 10 pax
135.369	Flight Data Recorder	Not Applicable – Less than 10 passenger seats
135.371	Additional Attitude Indicator	Not Applicable – Not turbo jet or turbofan powered

## Attachments

The following documents form attachments to this report:

- Photographs first-of-type example AB206A serial number 8127 ZK-HMU
- Three-view drawing Agusta-Bell Model AB206 Jetranger
- Copy of EASA Type Certificate Data Sheet Number RAI A-140

## Sign off

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 David Gill  
 Team Leader Airworthiness

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 Checked – Peter Gill  
 Airworthiness Engineer

## Appendix 1

### List of Type Accepted Variants:

<i>Model:</i>	<i>Applicant:</i>	<i>CAA Work Request:</i>	<i>Date Granted:</i>
AB206B (-C20)	Heli-Services Limited	97/21B/5	18 March 1997
AB206A (-C18)	Helicopter Flight Training Ltd	11/21B/30	22 February 2012