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# **Type Acceptance Report**

**TAR 18/21B/7 – Revision 1**

**Leonardo Helicopters AW169**



## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>1. INTRODUCTION</b>	<b>1</b>
<b>2. AIRCRAFT CERTIFICATION DETAILS</b>	<b>2</b>
<b>3. APPLICATION DETAILS AND BACKGROUND INFORMATION</b>	<b>3</b>
<b>4. NZCAR §21.43 DATA REQUIREMENTS</b>	<b>4</b>
<b>5. NEW ZEALAND OPERATIONAL RULE COMPLIANCE</b>	<b>9</b>
<b>ATTACHMENTS</b>	<b>10</b>
<b>APPENDIX 1</b>	<b>10</b>



## Executive Summary

New Zealand Type Acceptance has been granted to the Leonardo Helicopters AW169 Series based on validation of EASA Type Certificate number EASA.R.509. 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 §21.177, subject to any outstanding New Zealand operational requirements being met. (See Section 4 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(b).

NOTE: The information in this report was correct as at the date of issue. The report is generally only updated when an application is received to revise the Type Acceptance Certificate. For details on the current type certificate holder and any specific technical data, refer to the latest revision of the State-of-Design Type Certificate Data Sheet referenced herein.

## 1. Introduction

This report details the basis on which Type Acceptance Certificate No.18/21B/7 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. Aircraft Certification Details

### (a) State-of-Design Type and Production Certificates:

Manufacturer: Leonardo S.p.A. (\*)

(\*) Effective on 01 January 2016, AgustaWestland S.p.A. ownership was transferred to Finmeccanica S.p.A.;

Effective on 28 July 2016, Finmeccanica S.p.A. name was changed to Leonardo S.p.A.

Type Certificate: EASA.R.509

Issued by: European Aviation Safety Agency

Production Approval: IT.21G.0007

### (b) Models Covered by the Part 21B Type Acceptance Certificate:

(i) **Model:** AW169

MCTOW: 4600 kg [10,142 lb]  
4800 kg [10,583 lb] if P/N 6F0000F00211 is installed

Max. No. of Seats: 10  
12 (with 10 Seats Internal Arrangement kit P/N 6F2520F00111)

Noise Standard: 4600 Kg – ICAO Annex 16, Vol. I, 6th Edition, Amendment 10  
4800 Kg – ICAO Annex 16, Vol I, 7<sup>th</sup> Edition, Amendment 11B

**Engine:** 2 Pratt & Whitney Canada PW210A

Type Certificate: E-36

Issued by: Transport Canada

(Validated under Type Acceptance Certificate 18/21B/19)

### 3. Application Details and Background Information

The application for New Zealand type acceptance of the Leonardo Model AW169 was from the manufacturer, dated 27 July 2017. The AW169 applicable serial numbers are 69005 and subsequent. The first-of-type example is serial number 690xx to be registered ZK-HLH. Two examples have been ordered by the Auckland Rescue Helicopter Trust (ARHT) for Emergency Medical Service (EMS) work.

The AW169 is a new-design large Transport Category Rotorcraft in the 4-tonne class, approved for Category A and B operations. The AW169 has twin-turboshaft engines driving a 5-bladed fully articulated main rotor, an anti-torque 3-bladed tail rotor and an electrically retractable tricycle wheel landing gear. The maximum passenger seating capacity is 8, with provision for up to 10 passengers in a high-density layout (if the 10 Seats Internal Arrangement kit P/N 6F2520F00111 is installed). As part of the validation process, CAA certification specialists visited Leonardo Helicopters in Cascina Costa di Samarate. Training was provided for Flight Operations and Maintenance Inspectors.

Type Acceptance Certificate Number 18/21B/7 was granted on 9 February 2018 to the Leonardo Helicopters AW169 based on validation of EASA Type Certificate number EASA.R.509. 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 was raised to add the special condition relating to non-rechargeable lithium battery installation and to update the report format. This was actioned under CAA Work Request number 18/21B/30.

#### *Supplemental Type Certificates:*

The certification basis under the State-of-Design EASA Type Certificate EASA.R.509 and the FAA Type Certificate R00007RD are essentially the same. Leonardo Helicopters has confirmed that the approved type design is identical under both type certificates, apart from the following changes which are mandatory for FAA configured helicopters (See 169F0272N003 FAA Type Design Definition Document):

- 6F3420F00211 Kit Emergency Battery for ADI Standby – NDC-169F3420-001
- 6F1130F00111 Kit Electrical Emergency Exit Markings – NDC-169F1130-001

Therefore in accordance with CAR §21.503(a) FAA STC's approved for the AW169 are acceptable technical data for embodiment on New Zealand registered AW169 aircraft.

#### 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) Type certificate:

EASA Type Certificate Number EASA.R.509

EASA TCDS EASA.R.509 at Issue 08 dated 30 January 2018  
– Model AW169 approved 15 July 2015

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The certification basis of the AW169 is:

CS-29 at Amendment 2 dated 17 November 2008.

CS-29 Amendment 3, dated 11 December 2012 for the following installations and affected areas only:

– Kit Single Rescue Hoist P/N 6F2591F00111

This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41 and Advisory Circular 21-1A, because CS-29 is equivalent to FAR 29, which is the basic standard for Transport Category Rotorcraft called up under Part 21 Appendix C. Three Special Conditions were applied, and nine equivalent safety findings were made. These were reviewed and accepted by the CAA. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

**CRI E-12 – Loss of Oil from Gearboxes Utilising a Pressurised Lubrication System**  
– As a result of FAA, EASA and TCCA Joint Certification Team review of Part 29 rules and AC which affect the likelihood of loss of transmission oil and the consequences of such an event, EASA raised CRI E-12 requiring that any failure of the rotor drive lubrication system leading to complete loss of transmission oil which could result in a forced landing over hostile terrain, possibly including ditching under high sea state conditions, be classified at least as hazardous. The SC therefore required the lubrication system to meet the corresponding safety objectives. EASA additionally required Leonardo Helicopters to develop and incorporate into the Rotorcraft Flight Manual suitable crew emergency procedures to be observed following a loss of transmission lubrication.

**CRI F-01 – Special Requirements for HIRF** – In accordance with JAA Interim Policy and Guidance Material document n. INT/POL/27&29/1 “Protection from the Effects of HIRF” – The AW169 helicopter features electrical and electronic systems that perform critical and essential functions. The existing applicable airworthiness requirements for Type Certification (CS-29 Amdt.2) do not contain adequate or appropriate safety standards for protection from the effects of High Intensity Radiated Fields (HIRF) external to the aircraft. A Special Condition was therefore raised in accordance with the requirement of Part 21A.16B(a)(3). JAA Interim Policy INT/POL/27&29/1 issue 3 dated 01-10-2003 includes the recommended environmental levels on which the Special Condition is based.

**CRI F-21 – Lithium Battery Installation** – LH developed Kits featuring the installation of Lithium-ion batteries. This type of battery has certain failure, operational, and maintenance characteristics that differ significantly from those of the nickel cadmium (Ni-Cd) batteries which are covered by CS 29.1353(c)(5) and (c)(6). This Special Condition addresses specific safety issues concerning the use of Lithium-ion batteries, providing additional dedicated requirements.



CRI F-23 – CS 29.601, 29.863, 29.1353(c) “Non Rechargeable Lithium Battery Installations” – Non-rechargeable lithium batteries are installed as part of a cockpit voice flight data recorder (CVFDR) on the AW169. CRI establishes the means by which known or anticipated hazards associated with non-rechargeable lithium batteries and battery systems will be addressed.

(iii) *Equivalent Level of Safety Findings:*

CRI D-02 – CS 29.813(c) – “Emergency Exit Access” – CS 29.813(c) requires access from each aisle to each Type III and Type IV exit. AW169 has provision for an 8 passenger seats configuration, forward facing, and a 10 passenger seats configuration (certified as a separate Kit). These feature two separate lateral aisles not compliant with CS-29.813(c), because passenger access from each aisle to all Type IV exits is not guaranteed. It has been substantiated on the basis of:

1. Each passenger has access to at least a Type IV emergency exit on each side of the rotorcraft, i.e. in each side of the cabin at least one pair of Type IV emergency exits is available.
2. The passageway that leads each passenger to the emergency exits on both sides of the cabin meets the minimum dimension specified in CS 29.815.
3. An evacuation demonstration was successfully performed to confirm the capability of the passengers to have access to and use the available emergency exits.

CRI D-03 – CS 29.807(c)(1) – “Passenger Emergency Exits other than Side-of-Fuselage” – The AW169 is equipped with two Type IV passenger emergency exits on both fuselage sides but no emergency exits in the top, bottom or ends of the fuselage. Therefore it is not compliant to CS 29.807(c)(1). It has been substantiated via similarity that the occupants of the cabin of an AW169 would be capable of evacuating from the aircraft resting on its side provided the following conditions are met:

1. Seat installations or other interior components shall ensure enough walkable surface / items that could be used as a ladder to achieve emergency exit using the emergency exits located on the sides of the fuselage;
2. Seat and / or other interior components used for evacuation purposes shall be demonstrated to withstand step loads (at least 133.4 daN applied in the most critical direction on any features that can be used as step) applied by passengers climbing to reach the emergency exits

CRI D-07 – CS-29.807 (d)(2) – “Ditching Emergency Exits for Passengers” – EASA required Leonardo Helicopters to substantiate an equivalent level of safety in terms of passenger evacuation capability, for the 10 passengers seats configuration (certified as a separate kit), addressing the following aspects:

- Availability of emergency exits in each area of the partitioned cabin
- Interference of the emergency flotation system (stored and deployed) with the available emergency exits (ref. 29.807(d)(3))
- Sliding doors position (prior and after ditching)
- Inflation of the flotation system and life raft with sliding door blocked in the open position
- Passenger clothing

CRI D-04 – CS 29.811(d) “Emergency Exit Signs” – The AW169 uses photo luminescent devices for the passenger emergency exit markings. These feature letters of correct dimensions, but concerns were raised about their readability in different lighting conditions. Specific tests and analyses were performed to demonstrate the Emergency Exit markings provide an equivalent level of safety to the one established by CS 29.811(d) regarding visibility and identification.

CRI F-16 – CS 29.1305, 29.1521, 29.1549, 29.1309(c) “Power Index Indicator” – EASA required Leonardo Helicopters to demonstrate that the display of the Power Index, for both Category A and B operations, is at least equivalent to the continuous display of the required power

parameters in CS 29.1305. This requires engine gas generator rpm, turbine gas temperature, and torque output instruments. On conventional installations, these instruments are continuously available to the pilot for power management and monitoring engine condition and health. The AW169 PFD does not continuously display these engine power parameters, though it continuously displays a synthesized parameter referred to as the “Power Index”. The Power Index indicates the engine operating parameter closest to the next operating limit; the engine gas generator rpm, turbine gas temperature, and torque output parameters can be independently viewable when the powerplant page of one of the two MFDs is selected by the pilot or co-pilot.

CRI F-18 – CS 29.1305, CS 29.1521, CS 29.1549, CS29.1309 (c) “Standby Attitude Indicator Power Supply” – The usual designs consist of the Standby Attitude Indicator being supplied by a dedicated battery. As the Standby Attitude Indicator installed on the AW169 does not have a dedicated battery, it was requested that Leonardo Helicopters demonstrate that the AW169 generating system architecture provides an equivalent level of safety. The aircraft is equipped with two power sources (Main and Auxiliary Battery) which are independent from the normal electrical generation and are able to supply all essential loads, including the Standby Attitude Indicator, for at least 30 minutes. Provisions reflecting the emergency battery endurance have also been included in the RFM.

CRI G-01 – CS 29 Subpart B, CS 29-1305, CS 29-1309, CS 29-1549 “Engine Training Mode” – For operational purposes the AW169 is fitted with an engine failure training mode. When this mode is selected, the power output of both engines is symmetrically reduced in order to simulate an OEI condition. Leonardo Helicopters had proposed a dedicated display of powerplant instruments in this training mode, in order to provide the crew sufficient realistic cues of what would be displayed in a real OEI flight condition. The usage of Training Mode is restricted to Cat A takeoff/landing, fly-away and vertical reject procedures with a dedicated RFM Supplement.

CRI G-02 – CS 29.1545(b)(4) “Airspeed indicators green arcs” – Leonardo Helicopters implemented an airspeed indication without green arcs indicating the safe operating airspeed range and demonstrated that the absence of a green arc, besides not being necessary, provides better readability and less cluttering of the displays.

CRI D-05 – CS-29.601, CS-29.603, CS29-605, CS29-865, CS29-1301 d - “Hoist Installation” – The overload clutch of the hoists claimed for certification is of the same design as the clutches affected by EASA Airworthiness Directive (i.e. today AD2015-0226R1, superseding previous AD 2014-0254 till AD 2013-0275R1) derived from the investigation of an in-service event where a failure of the rescue hoist slip clutch resulted in the hoist cable reeling-out in an uncontrolled manner. All the information requested in the EASA CRI position are properly addressed in the dedicated supplement of the RFM and the ICA sections.

(iv) *Exemptions:*

*None*

(v) *Airworthiness Limitations:*

AW169 AMPI Air Vehicle Maintenance Planning Information, 69-A-AMPI-00-P, Chapter 04 “Airworthiness Limitations – EASA approved” (Publication Code 502169002)

(3) Environmental Certification:

(i) *Noise Requirements:*

4600 Kg – ICAO Annex 16, Vol. I, 6<sup>th</sup> Edition, Amendment 10, Chapter 8 (8.4.2)

4800 Kg – ICAO Annex 16, Vol. I, 7<sup>th</sup> Edition, Amendment 11B, Chapter 8 (8.4.2)

(ii) *Noise Compliance Listing:*

AgustaWestland Report No.169F1820T001/1 – AW169 Noise Certification: Test Plan – Rev. B

AgustaWestland Report No.169F1820T001/2 – AW169 Noise Certification: Demonstration of Compliance – Rev. A

Leonardo Helicopters Report No.169F1820N002 – AW169 Noise Certification at 4800 Kg: Demonstration of Compliance – Rev. B

(iii) *Emission Requirements*

Chapter 2 of ICAO Annex 16 Volume II, Amendment 6, Part II to Chicago Convention (as implemented in CS-34 Initial Issue – see CRI A-01)

(iv) *Emission Compliance Listing:*

AgustaWestland Report No.169F2800N007 – AW169 – Fuel System Compliance Against the PW210A EIM Requirements – Rev. B

(4) Certification Compliance Listing:

AgustaWestland Report No.169F0000N002 – AW169 Certification Program and Compliance Check List – Rev. F

AgustaWestland Report No.169F9500U001 – AW169: Cabin Safety Evaluation Report – Rev. B

Finmeccanica Helicopter Division Report No.169F9500U010 – AW169 Cabin Safety Evaluation Report for Kit 10 Seats Back to Back P/N 6F2520F00111 – Rev. B

(5) Flight Manual:

EASA-Approved Rotorcraft Flight Manual for the Leonardo Helicopters Model AW169 – Document Number 169F0290X001 – Publication Code 502169001 – CAA Accepted as AIR 3485

(6) Operating Data for Aircraft:

(i) *Maintenance Manual:*

AW169 Maintenance Planning Information – Doc. No. 69-A-AMPI-00-P; includes:

- Chapter 4 Airworthiness Limitations Section, EASA approved
- Chapter 5 with Scheduled Maintenance Requirements

Maintenance Review Board Report for AW169 – Doc. No. 169F0000M005

AW169 Maintenance Publication – Doc. No. 69-A-AMP-00-X

AW169 Material Data Information – Doc. No. 69-A-AMDI-00-X

AW169 Corrosion Control Publication – Doc. No. 69-A-ACCP-00-X

AW169 Fault Isolation Publication – Doc. No. 69-A-AFIP-00-X

AW169 Wiring Data Publication – Doc. No. 69-A-AWDP-00-X

AW169 Structural Repair Publication – Doc. No. 69-A-ASRP-00-X

AW169 Component Repair and Overhaul Publication – DN 69-A-CR&OP-00-X

(ii) *Current service Information:*

AW169-BT AW169 Bollettini Tecnici

AW169-IL AW169 Information Letters Set

(iii) *Illustrated Parts Catalogue:*

AW169 Illustrated Tool and Equipment Publication – Doc. No. 69-A-ITEP-00-X - Available on Leonardo AW Customer Portal

AW169 Illustrated Part Data – Doc. No. 69-A-IPD-00-X – Available on Leonardo AW Customer Portal

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

Leonardo Helicopters Instructions for Continued Airworthiness are delivered with the aircraft and the revision service is free for the first 5 years. Starting from 1 September, 2016 all Technical Publications are available only via Leonardo AW Customer Portal, website: [www.leonardocompany.com](http://www.leonardocompany.com) (note: Operating Manuals such as RFM or QRH are still distributed on paper copies, while CMP is distributed through CD/DVD-ROM).

(8) Other information:

Leonardo Helicopters Doc. No. 169F0272N002 – AW169 – Type Design Definition Document – Revision K dated 31/07/17 (or later approved)

Leonardo Helicopters No. 169F3130E014 – AW169 CVFDR Database

Leonardo Helicopters Report No. 169F2400L001 – AW169 – Collection of The Electrical Load Analyses

AW169-MMEL Master Minimum Equipment List (EASA)

*Minimum Flight Crew:*

Minimum Flight Crew One (1) for VFR day and One (1) for VFR night and IFR. For NVG operations, two (2) pilots or one (1) pilot and one (1) crew member are required. Both pilot and crew member must be equipped with NVGs.

Night Vision Goggle Operations are permitted according to RFM 169F0290X001 Supplement No. 16. The aircraft configuration involving internal/external emitting/reflecting equipment approved for use with NVG is described in the Report N. 169F3360A001 «AW169 NVG Compatibility Reference Handbook». Subsequent modifications and deviations to the NVG helicopter configuration shall be managed in accordance with document 169F3360E001 «AW169 Helicopter NVG Policy »)

## 5. New Zealand Operational Rule Compliance

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 is a prerequisite for the grant of a type acceptance 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	CS §29.783(c) and (e) and CS §29.807 (b)
E.2.1	Emergency Exit Marking	CS §29.811(b) and (f)

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	CS §29.785 – Crew seats have 5 point restraint harness, Passenger seats have 4 point harness.
91.507	Pax Information Signs – Smoking, safety belts fastened	Fitted as Standard
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	CS §29.1303(a) N/A – No mach no. limitations CS §29.1303(b) CS §29.1303(c) CS §29.1305(a)(3) CS §29.1305(a)(13)(14) CS §29.1305(a)(6)
91.511 Night	(1) Turn and Slip (2) Position Lights	CS §29.1303(g) – Slip-Skid indicator integrated into the PFD CS §29.1385 – Fitted as std. (3) Anti-collision Lights (4) Instrument Lighting CS §29.1401 CS §29.1381
91.513	VFR Communication Equipment	The standard aircraft configuration is a fully integrated avionic system which includes dual VHF Comm and dual VOR/ILS Nav; dual GPS; single DME; single ADF; and single ADS-B Transponder (DO-260B compliant). The AW169 navigation system, with Flight Management System software Phase 3.0, complies with RNP1, RNP2, RNAV1, RNAV2, RNAV5 and RNP APCH (down to LNAV Minima) Navigation Specifications requirements.
91.517	IFR Instruments and Equipment	
91.519	IFR Communication and Navigation Equipment	
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	Fitted as Standard One fire extinguisher fitted for cabin with 8 pax and 7 VIP seats. Two fire extinguishers fitted for cabin with 10 seats. Not Applicable – Less than 20 passengers Not Applicable – Less than 61 passengers
91.529	ELT - TSO C91a or C126 after 1/4/97 (or replacement)	ELT Artex P/N 453-5061 is part of the Basic Kit and meets the requirement.
91.531	Oxygen Indicators - Volume/Pressure/Delivery	<b>Operational Requirement – Compliance as applicable</b>
91.533	Oxygen for Non-Pressurized Aircraft Above FL100 – Supplemental for all Crew, Passengers – Therapeutic for 1% of Pax; 120l PBE for crew	Not fitted as standard (Maximum operating altitude in the TCDS is 15,000 ft, 10,000 ft for operations at gross weight above 4600 Kg)
91.541	SSR Transponder and Altitude Reporting Equipment	ADS-B Out transponder compliant with DO-260B is standard fit
91.543	Altitude Alerting Device - Turbojet or Turbofan	Not Applicable – Not turbo jet or turbofan powered
91.545	Assigned Altitude Indicator	<b>Operational Requirement – Compliance as applicable</b>
A.15	ELT Installation Requirements	Standard tailboom installation meets the requirements

## 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	CS §29.785
135.357	Additional Instruments (Powerplant and Propeller)	(1) Meets CS §29.1305; (2) N/A - Helicopter
135.359	Night Flight	<b>Operational Requirement – Compliance as applicable</b>
	Landing light, Pax compartment	
135.361	IFR Operations	<b>Operational Requirement – Compliance as applicable</b>
	Speed, Alt, spare bulbs/fuses	
135.363	Emergency Equipment (Part 91.523 (a) and (b))	<b>Operational Requirement – Compliance as applicable</b>
135.367	Cockpit Voice Recorder Appendix B.5 requires TSO C84/C123	
135.369	Flight Data Recorder Appendix B.6 requires TSO C124	Basic Kit is a multi-purpose cockpit voice and flight data recorder unit, Type D51615-202-007, which meets and exceeds EUROCAE ED-112, and is also approved under TSO-C123b (CVR Systems) and TSO-C124b (FDR Systems) - Leonardo Helicopters also confirmed compliance with FAR §135.151 and §135.152/Appendix C, which are the same as the NZCAR
135.371	Additional Attitude Indicator	
		Not Applicable – Not turbo jet or turbofan powered NOTE: Single standby attitude indicator fitted as standard

NOTES: 1. A Design Rule reference in the Means of Compliance column indicates the Design Rule was directly equivalent to the CAR requirement, and compliance is achieved for the basic aircraft type design by certification against the original Design Rule.

2. The CAR Compliance Tables above were correct at the time of issue of the Type Acceptance Report. The Rules may have changed since that date and should be checked individually.

3. Some means of compliance above are specific to a particular model/configuration. Compliance with Part 91/119 operating requirements should be checked in each case, particularly oxygen system capacity and emergency equipment.

## Attachments

The following documents form attachments to this report:

Three-view drawing Leonardo S.p.A. Helicopters Model AW169  
Copy of EASA Type Certificate Data Sheet Number EASA.R.509

## Sign off

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Andrea Wadsworth  
Airworthiness Engineer

.....  
Checked – Alessio Caldara  
Airworthiness Engineer (Avionics)

## Appendix 1

### List of Type Accepted Variants:

Model:	Applicant:	CAA Work Request:	Date Granted:
AW169	Leonardo S.p.A.	18/21B/7	9 February 2018