



Civil Aviation Administration of China (CAAC)

Aircraft Evaluation Group (AEG)

Aircraft Evaluation Report

For

AS350 B2, B3, and

EC130 B4, T2

Rev.1

Date: 10/7/2014

Manufacturer: Airbus Helicopters

Revision Record & Approval

Revision No.	Section	Page No.	Date
Rev.0	All	All	Feb.1, 2011
Rev. 1	All	All	July. 10, 2014

Prepared by:

Zhang Ling Zhi

Deputy Chief, Aircraft Evaluation Division
Flight Standards Department of Civil Aviation administration of China

Liu Yun Lei

Engineer, AEG Office
Civil Aviation Safety and Technology Center, Civil Aviation Administration of China

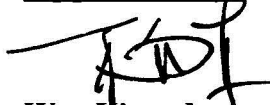
Reviewed by:



Xue Shi Jun

Director, Aircraft Evaluation Division
Flight Standards Department of Civil Aviation administration of China

Approved by:



Wan Xiangdong

Director General
Flight Standards Department of Civil Aviation administration of China

Table of Contents

REVISION RECORD AND APPROVAL	1
TABLE OF CONTENTS	2
FOREWORD	3
SECTION 1: PILOT TYPE RATING AND QUALIFICATION SPECIFICATION	5
1.1 STATEMENT AND EXPLANATION	5
1.2 PILOT TYPE RATING AND LICENCE ENDORSEMENT	6
1.3 ODR AND MDR	6
1.4 SPECIFICATION FOR TRAINING	7
1.5 SPECIFICATION FOR CHECKING	8
1.6 SPECIFICATION FOR CURRENCY	8
1.7 SPECIFICATION FOR FLIGHT SIMULATION TRAINING DEVICES	9
SECTION 2: MASTER MINIMUM EQUIPMENT LIST	10
2.1 STATEMENT AND EXPLANATION	10
2.2 CAAC SUPPLEMENT FOR AS350 AND EC130 MMEL BASED ON EASA	11
SECTION 3: MAINTENANCE REQUIREMENTS	17
3.1 STATEMENT AND EXPLANATION	17
SECTION 4: OPERATIONAL AND CONTINUED AIRWORTHINESS INSTRUCTIONS	18
4.1 STATEMENT AND EXPLANATION	18
4.2 AS350 B2, B3 - LIST OF OPERATIONAL AND CONTINUED AIRWORTHINESS INSTRUCTIONS	19
4.2 EC 130B4/T2 - LIST OF OPERATIONAL AND CONTINUED AIRWORTHINESS INSTRUCTIONS	20
SECTION 5: CCARS COMPLIANCE CHECKLIST	21
5.1 STATEMENT AND EXPLANATION	21
5.2 AS350 B2, B3	22
5.2.1 CCAR-91R2 Compliance Checklist	22
5.2.2 CCAR-135 Compliance Checklist	24
5.3 EC 130B4, T2	26
5.3.1 CCAR-91R2 Compliance Checklist	26
5.3.2 CCAR-135 Compliance Checklist	28
SECTION 6: OTHER EVALUATION ITEMS	31
APPENDIX: POINT OF CONTACT	32

Foreword

The AS350 B2, B3 and EC130 B4, T2 are members of Ecureuil/Single Engine Family made by Airbus Helicopters. All of the above helicopters are powered by one turbo-shaft engine. These helicopters were certified by EASA as variants in EASA TC No. R.008. The main differences among these variants are described as following:

(a) AS350 B2 was certified by DGAC on April 26, 1989, and is powered by a Turboméca Arriel 1D1 engine with a hydro-mechanical engine governing system. A Manual fuel throttle is installed on a quadrant panel on the cabin floor, and a single hydraulic system, a flexible seesaw Tail Rotor type is installed.

(b) AS350 B3 was certified by DGAC on December 24, 1997, and there are three different configurations which are powered by a Turboméca Arriel 2B, 2B1, and 2D engine respectively. According the TCDS, these configurations are named as AS350 B3 Arriel 2B, AS350 B3 Arriel 2B1, and AS350 B3 Arriel 2D. Because AS350 B3e is a commercial name of AS350 B3 Arriel 2D, this name will be used in this report. AS350 B3 Arriel 2B is governed by a single channel FADEC, AS350 B3 Arriel 2B1 and 2D are governed by a dual channel FADEC. These helicopters all are equipped with an electronic Vehicle and Engine Multifunction Display and a manual fuel Twist Grip on the collective lever.

(c) EC130 B4 was certified by DGAC and recommended by JAA on December 14, 2000. It is based on AS350 B3, powered by a Turboméca Arriel 2B1 engine with a dual channel FADEC, and has a widened AS350 B3 cabin and a modernized windshield-screen. Pilot seat is on the left side. Dual hydraulic system, for dual-body servo-controls are installed in base. Tail rotor is "Fenestron" design.

(d) EC130 T2 was certified by EASA on May 25, 2012. It is based on EC130 B4, powered by a Turboméca Arriel 2D engine with a dual channel FADEC, and has Active Vibration Control System, Air Conditioning System, and Engine Data Recorder installed.

The following table show the basic information of these models:

	AS350 B2	AS350 B3	EC 130 B4	EC 130 T2
Length	10.93 m (35.86 ft)	10.93 m (35.86 ft)	10.68 m (35.03 ft)	10.68 m (35.03 ft)
Width	1.87 m (6.14 ft)	1.87 m (6.14 ft)	2.03 m (6.66 ft)	2.03 m (6.66 ft)
Height	3.14 m (10.30 ft)	3.14 m (10.30 ft)	3.61 m (11.84 ft)	3.61 m (11.84 ft)
Main Rotor	3 blades – Diameter 10.69 m (35.07 ft)	3 blades – Diameter 10.69 m (35.07 ft)	3 blades – Diameter 10.69 m (35.07 ft)	3 blades – Diameter 10.69 m (35.07 ft)
Tail Rotor	2 blades – Diameter 1.86 m (6.10 ft)	2 blades – Diameter 1.86 m (6.10 ft)	Fan-in-fan 10 blades – Diameter 1.00 m (3.28 ft)	Fan-in-fan 10 blades – Diameter 1.00 m (3.28 ft)

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

	AS350 B2	AS350 B3	EC 130 B4	EC 130 T2
Engine	TURBOMECA ARRIEL 1 D1	TURBOMECA ARRIEL 2B, 2B1, 2D	TURBOMECA ARRIEL 2B1	TURBOMECA ARRIEL 2D
Maximum Certified Weight	2250 kg (4960 lb)	2250 kg (4960 lb) 2370 kg (5220 lb) for a/c incorporating modification	2427 kg (5350 lb)	2500 kg (5512 lb)
Minimum Flight Crew	1 pilot in right seat	1 pilot in right seat	1 pilot in left seat	1 pilot in left seat
Maximum Passenger Seating Capacity	5, or 6 with the forward two-place seat optional equipment	5, or 6 with the forward two-place seat optional equipment	6 (2 at front and 4 at rear) or 7 (3 at front and 4 at rear) after modification	6 (2 at front and 4 at rear) or 7 (3 at front and 4 at rear) if modification

AS350B3e was validated by CAAC VTC team in March 5, 2012, and EC130T2 was validated by CAAC VTC team on May, 23 2014.

CAAC AEG had evaluated the AS350 B2, B3 (except AS350 B3e) and EC130 B4, and issued the first version report on February 1, 2011. And then CAAC AEG evaluated two new variants, AS350 B3e and EC130 T2, in February 2014. This report was developed on the base of last version dedicated for AS350 B2, B3 (except AS350 B3e) and EC130B4, and incorporates the determinations and conclusions for AS350 B3e and EC130T2.

Section 1: Pilot Type Rating and Qualification Specification

1.1 Statement and Explanation

This section is the formal notification that CAAC AEG has conducted Flight Standardization Board (FSB) evaluation for AS350 B2, B3, and EC130 B4, T2 helicopters made by Airbus Helicopters on the base of the Operational Evaluation Board (OEB) Report (revision 4) published by European Aviation Safety Agency (EASA), which specifies the pilot type rating, training, checking, and currency specifications for the flight crews.

Hereby, the provisions in this section can be used, as the basis, by Chinese operators to develop their pilot qualification and training program for above helicopters.

Alternate means of compliance to the requirements of CCAR 61, 91, 135, other than as specified in the provisions of this section, must be approved by Flight Standards Department of CAAC. If alternate compliance is sought, operators will be required to establish that proposed alternate means provide an equivalent level of safety to the provisions of this section, and analysis, demonstrations, proof of concept testing, differences documentation, or other evidence may be required.

Find of EASA OEB Report:

<http://easa.europa.eu/document-library/operations-evaluation-board-reports>

1.2 Pilot Type Rating and Licence Endorsement

Upon the FSB evaluation, the Pilot Type Rating of AS350 B2, B3, and EC130 B4, T2 helicopters is list as following:

Manufacturer	Aircraft Type	Pilot Type Rating
Airbus Helicopters	AS350 B2	AS350
	AS350 B3 Arriel 2B	
	AS350 B3 Arriel 2B1	
	AS350 B3e	
	EC130 B4	
	EC130 T2	

License endorsement:

"AS350" is designated as the type rating of AS350 B2, B3 or EC130 B4, T2. The specific helicopter types, which are listed in Aircraft Type column of the above table, should be identified in training and checking records.

Note: Only familiarization training is required between the variants in the same cell of the above table, and difference training is required between the variants in different cells.

1.3 ODR and MDR

Operator Difference Requirement (ODR) and Master Difference Requirement (MDR) tables have been produced by Airbus Helicopters and evaluated by EASA.

On the base of this CAAC AEG specific evaluation for AS350 B3e and EC130 T2, an MDR table in this report is extracted from the EASA OEB Report for Ecureuil/Single Engine Family (AS350 B, D, B1, B2, BA, BB, B3 & EC130 B4, T2), Revision 4, issued on August 6, 2012. The related ODR tables are available by request to Airbus Helicopters (Doc No: 350 A 04 7231 D).

The MDR table is shown as following. When the pilot makes a transition between the variants with "D" or "C" differences, difference training is required. For other transitions between the variants with "B" or "A" differences, familiarization training is required. According to the MDR table, the following difference training courses are needed:

- From AS350 B2 to AS350 B3 Arriel 2B
- From AS350 B2 to AS350 B3 Arriel 2B1 or AS350 B3e
- From AS350 B2 to EC130 B4 or T2
- From AS350 B3 Arriel 2B to AS350 B3 Arriel 2B1 or AS350 B3e
- From AS350 B3 Arriel 2B to EC130 B4 or T2

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

- From AS350 B3 Arriel 2B to AS350 B2
- From AS350 B3 Arriel 2B1 or AS350 B3e to EC130 B4 or T2
- From AS350 B3 Arriel 2B1 or AS350 B3e to AS350 B3 Arriel 2B
- From AS350 B3 Arriel 2B1 or AS350 B3e to AS350 B2
- From EC130 B4 or T2 to the AS350 B3 Arriel 2B1 or AS350 B3e
- From EC130 B4 or T2 to the AS350 B3 Arriel 2B
- From EC130 B4 or T2 to the AS350 B2

MDR Table for Ecureuil/Single Engine Family

		From Helicopters					
		AS350 B2	AS350 B3 Arriel 2B	AS350 B3 Arriel 2B1	AS350 B3e	EC130 B4	EC130 T2
To Helicopters	AS350 B2		D/D/D	D/D/D	D/D/D	D/D/D	D/D/D
	AS350 B3 Arriel 2B	D/D/D		D/D/D	D/D/D	D/D/D	D/D/D
	AS350 B3 Arriel 2B1	D/D/D	C/C/C		A/A/A	C/C/C	C/C/C
	AS350 B3e	D/D/D	C/C/C	A/A/A		C/C/C	C/C/C
	EC130 B4	D/D/D	C/C/C	C/C/C	C/C/C		A/B/B
	EC130 T2	D/D/D	C/C/C	C/C/C	C/C/C	A/B/B	

1.4 Specification for Training

The Training Program published by Airbus Helicopters for the AS350 B2, AS350 B3, and EC130 B4, T2, *Traning program AS350 EC130 Ecureuil SET*, consists of the following training courses, which has to be considered as a minimum for pilot training:

Name of course	Aim
ITR series	Initial single pilot TR VFR AS350 series
ATR series	Additional single pilot TR VFR AS350 series
ITR B3	Initial single pilot TR VFR AS350 B3
ATR B3	Additional single pilot TR VFR AS350 B3
ITR B3e	Initial single pilot TR VFR AS350 B3 Arriel 2B1, B3e
ATR B3e	Additional single pilot TR VFR AS350 B3 Arriel 2B1, B3e
ITR 130	Initial single pilot TR VFR EC130 B4, T2
ATR 130	Additional single pilot TR VFR EC130 B4, T2
D series to B3	Differences from AS350 series to AS350 B3

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

D series to B3e	Differences from AS350 series to AS350 B3 Arriel 2B1, B3e
D series to 130	Differences from AS350 series to EC130 B4, T2
D B3 to B3e	Differences from AS350 B3 to AS350 B3 Arriel 2B1, B3e
D B3 to 130	Differences from AS350 B3 to EC130 B4, T2
D B3 to series	Differences from AS350 B3 to AS350 serie
D B3e to 130	Differences from AS350 B3 Arriel 2B1, B3e to EC130 B4, T2
D B3e to B3	Differences from AS350 B3 Arriel 2B1, B3e to AS350 B3
D B3e to series	Differences from AS350 B3 Arriel 2B1, B3e to AS350 series
D 130 to B3e	Differences from EC130 B4, T2 to AS350 B3 Arriel 2B1, B3e
D 130 to B3	Differences from EC130 B4, T2 to AS350 B3
D 130 to series	Differences from EC130 B4, T2 to AS350 series

Note 1: In the above table, "series" consists of AS350 B, BA, B1, B2, and B2 VEMD. In the "series", only AS350 B2 is applicable to Chinese operators. "D" is the abbreviation of differences.

Note 2: In the training program, ITR (Initial Type Rating) course is for pilot without a single turbo-engine helicopter type rating; ATR (Additional Type Rating) course is for pilot with a single turbo-engine helicopter type rating.

Note 3: The above training program is available from Airbus Helicopters on request.

The following training areas should be emphasized specially during these training:

- Autorotation
- Simulated hydraulic failure (Except EC130 B4 & T2 and AS350 B3 equipped with the optional dual hydraulic system)
- Simulated single channel FADEC failures (B3 version only)
- Twist-grip and FFCL (Fuel Control Lever) condition of use (When in simulated hydraulic failure training on AS350 B3 Arriel 2B1 or AS350 B3e) (When in simulated Single channel FADEC failure training on AS350 B3)

The detailed information on these training areas of specific emphasis can be found in the EASA OEB report for ECUREUIL/Single Engine Family, which can be used as a reference for training.

1.5 Specification for Checking

As required by CCAR Part 61, 91, and 135.

1.6 Specification for Currency

As required by CCAR Part 61, 91, and 135.

1.7 Specification for Flight Simulation Training Devices

When this report has been finalized, no Flight Simulation Training Devices qualified in accordance with CCAR Part 60 were available for AS350 B2, B3 or EC130 B4, T2.

Section 2: Master Minimum Equipment List

2.1 Statement and Explanation

This section is the formal notification that CAAC AEG has conducted Flight Operation Evaluation Board (FOEB) evaluation for Airbus Helicopters AS350 B2, B3, and EC130B4, T2 helicopters based on the Master Minimum Equipment List, *MMEL AS350 and EC130 (all models)*, Normal Revision 4 Issue 2 (Date-Code 12-06), accepted by European Aviation Safety Agency (EASA), which outlines the items of equipment that may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations.

Hereby, the MMEL and its future revisions accepted by EASA can be used, as a basis, by Chinese operators to develop their Minimum Equipment List (MEL) for these helicopters. In addition, CAAC Supplement for AS350 and EC130 MMEL based on EASA MMEL in this section should also be considered by Chinese operators in developing their MEL.

The MMEL AS350 and EC130 (all models) can be found at EASA website:

<http://easa.europa.eu/document-library/master-minimum-equipment-lists>

MMEL document distribution:

By Airbus Helicopters website: airbushelicopters.com

2.2 CAAC Supplement for AS350 and EC130 MMEL based on EASA

SYSTEM - EQUIPMENT DESCRIPTION (1)	↓REPAIR TIME INTERVAL CATEGORIS (2)			
		↓NUMBER INSTALLED (3)		
			↓NUMBER REQUIRED FOR DISPATCH (4)	
				REMARKS AND/OR EXCEPTIONS (5)
22 – AUTO FLIGHT (AS350 models only) 4. Navigation data base (If installed)	C	-	0	(O) One or more may be inoperative for the intended route where conventional (non-RNAV) navigation is sufficient, provided: a) Current aeronautical information (e.g. charts) is available for the entire route and for the aerodromes to be used, b) Navigation database information is disregarded.
	C	-	1	Any in excess of one may be inoperative provided it is not powered by an emergency bus and flights are conducted under VFR over routes navigated by reference to visual landmarks.
23 – COMMUNICATIONS 1. Radio communication system (VHF, HF, UHF, FM, etc...)	A	-	1	Any in excess of one of the two required Radio Communication Systems not powered by the emergency bus may be inoperative provided: a) Flights are conducted under VFR over routes not navigated by visual landmarks b) The helicopter has not made more than one flight since the item was last serviceable, c) The commander has satisfied himself that, taking into account the latest information available as to the route/area and heliport to be used (including any planned diversion) and the weather conditions likely to be encountered, the flight can be made safely and in accordance with any relevant requirements of the appropriate air traffic control unit.

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

SYSTEM - EQUIPMENT DESCRIPTION (1)	↓REPAIR TIME INTERVAL CATEGORIS (2)			REMARKS AND/OR EXCEPTIONS (5)
		↓NUMBER INSTALLED (3)		
			↓NUMBER REQUIRED FOR DISPATCH (4)	
4. Headset	D	-	1	Any in excess of those required by the flight manual (Section 2) and by the operational regulations may be inoperative.
5. Audio selector panel	D	-	1	Any in excess of one for each required crew member on flight deck duty may be inoperative.
6. Public Address system (PA)	-	-	0	May be inoperative because only requested for helicopters with a maximum approved configuration of more than 9.
7. Crew member interphone system. (Flight crew to cabin/ground, cabin/ground to flight crew & cabin to cabin, alerting system & handset)	-	-	0	May be inoperative because there is no crew member other than flight crew member.
25 – EQUIPMENTS AND FURNISHINGS				
6. Emergency Locator Transmitter (ELT)	A	-	0	May be inoperative provided: a) The helicopter shall not fly for more than 6 hours after the ELT was found to be inoperative, b) A maximum of 24 hours have elapsed since the ELT was found to be inoperative.
7. Emergency floatation equipment	D	-	0	May be inoperative for flights overland.
9. Torches	D	-	0	May be inoperative (not required for VFR day operations).
10. Automatically Deployable Emergency Locator Transmitter (ADELT) (If installed)	D	-	0	May be inoperative (equipment not required for single-engine helicopters; only requested for helicopters operated in Performance Class 1 or 2 over water in a hostile environment.)
11. Life-rafts and survival ELT(s) for extended Overwater flights (if	D	-	0	(M) Any in excess of those required may be missing or inoperative provided, the inoperative equipment is placarded

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

SYSTEM - EQUIPMENT DESCRIPTION (1)	↓REPAIR TIME INTERVAL CATEGORIS (2)			REMARKS AND/OR EXCEPTIONS (5)
		↓NUMBER INSTALLED (3)		
			↓NUMBER REQUIRED FOR DISPATCH (4)	
installed)				inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.
12. Survival equipment	D	-	0	(M) Any in excess of those required may be missing or inoperative provided, the inoperative equipment is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.
13. First aid kit	A	-	1	May be incomplete for 1 calendar day.
	D	-	1	Any in excess of one may be incomplete or missing.
14. Lifejackets	D	-	0	(M) Any in excess of those required may be missing or inoperative, provided: a) Inoperative lifejacket is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, b) Required distribution of serviceable lifejackets is maintained.
26 – FIRE PROTECTION				
1. Portable fire extinguisher	D	-	1	(M) Any in excess of those required may be inoperative or missing provided: a) The inoperative fire extinguisher is placarded inoperative, removed from installed location and placed out of sight so it cannot be mistaken for a functional unit, b) Required distribution is maintained.
30 – ICE AND RAIN PROTECTION				
3. Windshield wiper system (AS350 All models, if installed)	C	-	0	One or more may be inoperative provided the aircraft is not operated in known or forecast precipitation that requires their use.
31 – INDICATING AND RECORDING SYSTEMS				
1. Clocks	C	-	0	May be inoperative provided an accurate

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

SYSTEM - EQUIPMENT DESCRIPTION (1)	↓REPAIR TIME INTERVAL CATEGORIS (2)			REMARKS AND/OR EXCEPTIONS (5) timepiece is operative on the flight deck indicating the time in hours, minutes and seconds. <u>Note 1:</u> The above is applicable only to those aircraft where the clock has no implication on other equipment e.g. FDR, otherwise the effects on such other systems must be considered. <u>Note 2:</u> On the basis that the timepiece required does not need to be approved, an accurate pilot's wristwatch which indicates hours, minutes and seconds, would be acceptable.
	↓NUMBER INSTALLED (3)			
			↓NUMBER REQUIRED FOR DISPATCH (4)	
3. Flight data recorder (If installed)	-	-	0	<p>May be inoperative because FDR is not requested for helicopters having a maximum certificated take-off mass lower than 3175 kg.</p> <p>May be inoperative for daylight operations.</p> <p>May be inoperative provided passengers are not carried.</p> <p>Any in excess of one may be inoperative.</p> <p>May be inoperative provided flight is not conducted over water out of sight of land, or not conducted over water when the visibility is less than 1500 m.</p> <p>Or</p> <p>Any in excess of one may be inoperative provided the operative attitude indicator is on the commander's side when flight is conducted over water out of sight of land or over water when visibility is less than 1500 m</p>
33 –LIGHT				
5. Cabin lighting system	D	-	0	
	D	-	0	
34 – NAVIGATION				
4. Slip indicator	B	-	1	
6. Attitude indicators				
1) Day VFR operations	D	-	0	
	D	-	1	

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

SYSTEM - EQUIPMENT DESCRIPTION (1)	↓REPAIR TIME INTERVAL CATEGORIS (2)			REMARKS AND/OR EXCEPTIONS (5)
		↓NUMBER INSTALLED (3)		
			↓NUMBER REQUIRED FOR DISPATCH (4)	
9. Navigation system (VOR, ILS, ADF, DME, etc.)	A	-	1	(O) No more than one of the navigation equipment systems carried in accordance with the operational requirements, may be inoperative provided: a) The helicopter has not made more than one flight since the item was last serviceable, b) The commander has satisfied himself that, taking into account the latest information available as to the route/area and heliport to be used (including any planned diversion) and the weather conditions likely to be encountered, the flight can be made safely and in accordance with any relevant requirements of the appropriate air traffic control unit.
	D	-	1	Any in excess of those required may be inoperative
12. Flight Director (AS350 All models, if installed)	C	-	0	(O) One or more may be inoperative provided: a) Applicable operating minima do not require their use, b) The navigation specifications of the route to be flown do not require their use.
15. Radio Altimeter with an audio warning (if installed)	A	-	0	(O) May be inoperative provided: (a) No more than 6 hours shall be flown over water since the radio altimeter was found to be inoperative, (b) A maximum of 24 hours have elapsed since the radio altimeter was found to be inoperative, (c) The aircraft shall not fly overwater at an altitude of less than 500 feet except for take-off and landing, and (d) The helicopter shall not descend below

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

SYSTEM - EQUIPMENT DESCRIPTION (1)	↓REPAIR TIME INTERVAL CATEGORIS (2)			REMARKS AND/OR EXCEPTIONS (5)
		↓NUMBER INSTALLED (3)		
			↓NUMBER REQUIRED FOR DISPATCH (4)	
				500 feet on approach to landing over water unless the landing site is clearly visible to the pilot.
16. SSR (Secondary Surveillance Radar) Transponder (if installed)	A	-	0	May be inoperative provided agreement can be obtained from all ATC authorities along the route or any planned diversion, to a place where repairs can be made.
17. Standby magnetic compass	D	-	0	Any in excess of those required for the route to be flown may be inoperative.
	B	-	0	May be inoperative provided: a) Flight is conducted by day under VFR; b) Flight is not conducted over water, out of sight of land or when the visibility is less than 1500m; c) The helicopter's main Magnetic Direction Indicator System is operative.
19. Global Positioning System (GPS) (if installed)	C	-	0	(O) One or more may be inoperative provided alternate procedures are established and used.
	D	-	0	(O) One or more may be inoperative provided procedures do not require its use. <u>Note:</u> If GPS is used as a Long Range Navigation System, refer to item 34-9 of this supplement.
35 – OXYGEN				
1. Oxygen system non-pressurized aircraft (If installed)	C	-	0	One or more may be inoperative provided the aircraft is not operated above a pressure altitude of 10,000ft.

Section 3: Maintenance Requirements

3.1 Statement and Explanation

There is no Maintenance Review Board Report for Airbus Helicopters AS350 B2, B3, and EC130 B4, T2 helicopters.

Airworthiness Limitation approved by type certification process included in the following documents:

- AS350 B2 Chapter 04 Airworthiness Limitations Section
- AS350 B3 Chapter 04 Airworthiness Limitations Section
- EC130 B4 Chapter 04 Airworthiness Limitations Section
- EC130 T2 Chapter 04 Airworthiness Limitations Section

Maintenance tasks of above mentioned Airworthiness Limitation will not be allowed to be escalated without approval of type certification authority.

Schedule maintenance requirements recommended by Airbus Helicopters included in the following documents:

- AS350 B2 Chapter 05 Master Servicing Manual
- AS350 B3 Chapter 05 Master Servicing Manual
- EC130 B4 Chapter 05 Master Servicing Manual
- EC130 T2 Chapter 05 Master Servicing Manual

Maintenance tasks of above mentioned schedule maintenance requirements may be escalated with the supporting data by operator's reliability program.

Section 4: Operational and Continued Airworthiness Instructions

4.1 Statement and Explanation

This section is the formal notification that CAAC AEG has conducted evaluation of the operational and continued airworthiness instructions for Airbus Helicopters AS350 B2, B3, and EC130 B4, T2 helicopters based on the relevant policies and procedures of Airbus Helicopters.

Hereby, the Operational & Continued Airworthiness Instructions document listed in the attachment was found acceptable by CAAC AEG, and will give the necessary guidance for properly operating and maintaining Airbus Helicopters AS350 B2, B3, and EC130 B4, T2 helicopters within the approved operating conditions and limitations.

This acceptance may not assure the accuracy and applicability of the content in each document, it is the aircraft owner's or operator's responsibility to report any defect or discrepancy in the documents to the aircraft manufacturer, or report to CAAC AEG by Email (aeg@caac.gov.cn).

Operational & Continued Airworthiness Instructions distribution:

By Airbus Helicopters website: airbushelicopters.com, CD/DVD, and Paper.

4.2 AS350 B2, B3 - List of Operational and Continued Airworthiness Instructions

Manual	Reference No.	Description	Revision/Date
FLM	-- --	Flight Manual-AS350B2 Flight Manual-AS350B2(VEMD) Flight Manual-AS350B3 Flight Manual-AS350B3(Arriel 2B1) Flight Manual-AS350B3e	As revised
PRE	--	Maintenance Program - AS 350 B2 Maintenance Program - AS 350 B3	As revised
SDS	--	System Description Section - AS 350 B2/ B3(all versions)	As revised
AMM	--	Aircraft Maintenance Manual - AS 350 B2/ B3(all versions)	As revised
MFI	--	Fault Isolation Manual- AS 350 B2/ B3(except AS350B3e)	As revised
SRM	--	Repair Manual - AS 350 B2/ B3(except AS350B3e)	As revised
MTC	--	Standards Practices Manual	As revised
ICO	--	Tools Catalog - AS 350 B2 AS350B3-550C3 Illustrated Parts Tools-AS350B3e	As revised
IPC	--	Illustrated Parts Catalog - AS 350 B2 Illustrated Parts Catalog - AS 350 B3	As revised
WDM	--	Wiring Diagrams Manual - AS 350 B2/ B3(all versions)	As revised
SRM	--	Structural Repair Manual- AS 350 B2/ B3(all versions)	As revised
SIM	--	Index of Modifications - AS 350 B2/ B3(all versions)	As revised
ECMM	--	Electronic Component Maintenance Manual - AS 350-550-355-555-EC130 all versions	As revised

Note1: Revision for section 2 of FLM and Chapter 04 of PRE should be approved by EASA.

Note2: Operators may check website T.I.P.I for most current status for the manuals and technical publications.

Note3: For optional equipment installation, the operation document as defined in Flight Manual Supplement, and maintenance instructions included in the general technical publications as above.

Note4: The Engine Maintenance manual (EMM) will be provided by the engine manufacture TURBOMECA directly.

4.2 EC 130B4/T2 - List of Operational and Continued Airworthiness Instructions

Manual	Reference No.	Description	Revision/Date
FLM	--	Flight Manual-EC130B4 Flight Manual-EC130T2	As revised
AMM	--	Aircraft Maintenance Manual-EC130B4, T2	As revised
IPC	--	Illustrated parts Catalog-B4 Illustrated parts Catalog-T2	As revised
MSM.Chapter 04	--	Airworthiness Limitations Section- MSM Chapter 04-B4 Airworthiness Limitations Section- MSM Chapter 04-T2	As revised
MSM.Chapter 05	--	Master Servicing Manual, Chapter 05-B4 Master Servicing Manual, Chapter 05-T2	As revised
MTC	--	Standard Practices Manual	As revised
SDS	--	System Description Section- EC130B4, T2	As revised
SIM	--	Index of Modifications-EC130	As revised
WDM	--	Wiring Diagram Manual- EC130B4, T2	As revised
ECMM	--	Electronic Component Maintenance Manual - AS 350-550-355-555-EC130 all versions	As revised

Note 1: Revision for Section 2 of FLM and MSM Chapter 04 should be approved by EASA.

Note2: Operators may check website T.I.P.I. for most current status for the manuals and technical publications.

Note3: For optional equipment installation, the operation document as defined in Flight Manual Supplement, and maintenance instructions included in the general technical publications as above.

Note4: The Engine Maintenance manual (EMM) will be provided by the engine manufacture TURBOMECA directly.

Section 5: CCARs Compliance Checklist

5.1 Statement and Explanation

This section is the formal notification that CAAC AEG has developed the compliance checklist for Airbus Helicopters AS350 B2, B3, and EC130 B4, T2 helicopter based on the following aircraft configuration:

-EASA Type Certificate Data Sheet R.008 Issue 08.

The checklist is provided as an aid to identify those specific requirements of rules for which compliance has already been demonstrated for the type design. The checklist also notes the requirements of rules which remain to be demonstrated compliance by the operators.

When the aircraft configuration differs from the above stated aircraft configuration, it is the responsibility of the operator and its CAAC Principle Inspector (PI) to evaluate those differences and develop the compliance to the relevant requirements of rules.

It also remains the responsibility of the operator and its PI to evaluate the corrective actions for those items not satisfactorily addressing compliance in the checklist prior to approve the appropriate operation.

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

5.2 AS350 B2, B3

5.2.1 CCAR-91R2 Compliance Checklist

Articles/Subject	Compliance	Remark/Limitation
§91.401 Civil aircraft: Certifications required	CCAR-34 and CCAR-36 not applicable	Other requirements should be checked by PI.
§91.403 Instrument and Equipment for VFR operation	Complies	
§91.405 Instrument and Equipment for IFR operation	Not applicable	Not certificated for IFR operations.
§91.407 Instruments and Equipments for night and over-the-top operation	Not complies	1. Modification installation should be checked by PI before approval for night and over-the-top operation. 2. Other requirements in operation should be checked by PI.
§91.409 Mach number indicator	Not applicable	
§91.411 Radio communication equipment	Complies	Requirements in operation should be checked by PI.
§91.413 Navigation equipment	Complies	Requirements in operation should be checked by PI.
§91.415 Emergency and life-saving equipment	Complies excepted First aid kits, some sign (for fasten seat belt, no smoking)	The First aid kits and sign installation should be checked by PI.
§91.417 Additional emergency and Life equipments for over water operation	Not applicable.	
§91.419 Additional emergency and Life-saving equipment for rotorcraft over water flights	Not complies, except emergency floatation gear as optional equipment	If optional equipment and corrective action for other requirements installed, it should be checked by PI before approval of over water operations

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
§91.421 Additional emergency and Life-saving equipment for flights over designated land areas	Not complies	If corrective action for other requirements installed, it should be checked by PI before approval of designated land areas.
§91.423 Oxygen equipment-operation at high altitude	Not complies	Maximum operating altitude limited to 3000m.
§91.425 Equipment for operation in icing conditions	Not complies	Flights under icing and freezing rain are prohibited
§91.427 ATC transponder and altitude reporting equipment	Complies except Mode S transponder as optional equipment	1. Mode S transponder required for operation between the international transport airport and busy transport airport, operation at middle and high level route 2. Requirements in operation should be checked by PI.
§91.429 Altitude alerting system or device: Turbojet-powered civil airplanes.	Not applicable	
§91.431 Weather radar	Not applicable	Not certificated for operations under IFR
§91.433 Flight recorder	Not applicable	Maximum take-off weight 2370kg..
§91.435 Emergency locator transmitter	Complies except for ELT work in 406 MHz as optional equipment	1. Installation for optional ELT work in 406 MHz should be checked by PI. 2. Requirements in operation should be checked by PI.
§91.437 Terrain awareness and warning system.	Not applicable	
§91.439 Traffic Alert and Collision Avoidance equipment and use	Not applicable	

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
§91.441 Radiation indicator	Not applicable	
Appendix B Category II Operations: Manual, Instruments, Equipment, and Maintenance	Not applicable	Not certificated for operations under IFR
Appendix C Operations within airspace designated as Minimum Navigation Performance Specification Airspace.	Not applicable	Not certificated for operations under IFR
Appendix D Operations in Reduced Vertical Separation Minimum(RVSM)	Not applicable	Maximum Operating Altitude 7010 m

5.2.2 CCAR-135 Compliance Checklist

Articles/Subject	Compliance	Remark/Limitation
§135.75 Inspectors credentials: admission to pilots' compartment	Complies	Utilize one of the central passenger sea t.
§135.146 Emergency locator transmitters	Complies except non-automatic activated ELT	Over water operations limited, unless life raft installed with non-automatic activated ELT and checked by PI.
§135.149 Dual controls required.	Not applicable	Although type certified as single pilot, Dual controls are available as optional equipment.
§135.151 Equipment requirements: General.	Complies	
§135.153 Public address and crewmember interphone systems.	Not applicable	
§135.155 Flight Data Recorder	Not applicable	Maximum take-off weight 2427kg..
§135.157 Cockpit voice recorders.	Not applicable	Maximum take-off weight 2427kg..
§135.159 Ground proximity warning system	Not applicable	
§135.161 Terrain awareness and warning system	Not applicable	

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
(TAWS)		
§135.163 Fire extinguishers: Passenger carrying aircraft.	Complies	
§135.165 Oxygen equipment requirements.	Not complies	Maximum operating altitude limited to 3000m.
§135.167 Equipment requirements: Carrying passengers under VFR at night or under VFR over the top conditions	Excepted flashlight, complies if modification 07-3664 is installed	Modification and flashlight installation should be checked by PI before approval for night and over-the-top operation.
§135.169 Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over the top.	Complies	
§135.171 Equipment requirements: Aircraft carrying passengers under IFR	Not applicable	Not certificated for operations under IFR
§135.173 Radio and navigational equipment requirement for extended overwater or IFR operations.	Complies	Overwater operation also requires additional emergency and Life-saving equipment as §91.419 and §135.175.
§135.175 Emergency equipment requirements for extended overwater operations.	Not complies	If optional emergency floatation gear and corrective action for other requirements installed, it should be checked by PI before approval of over water operations
§135.177 Shoulder harness installation requirement at flight crewmember stations.	Compliance even maximum 7 passenger seats	
§135.179 Airborne thunderstorm detection equipment requirements.	Not applicable	
§135.181 Airborne weather radar equipment requirements.	Not applicable	

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
§135.183 Emergency equipment requirements for aircraft having a passenger seating configuration of more than 19 passengers.	Not applicable	
§135.185 Additional emergency equipments	Not applicable	
§135.189 Airborne Collision Avoidance System (ACAS II)	Not applicable	
§135.197 Language requirement for placards and markings	Complies	Should be further checked by PI before operation
§135.199 Pitot heat indication systems.	Not applicable	
§135.203 Materials for compartment interiors	Not applicable	

5.3 EC 130B4, T2

5.3.1 CCAR-91R2 Compliance Checklist

Articles/Subject	Compliance	Remark/Limitation
§91.401 Civil aircraft: Certifications required	CCAR-34 and CCAR-36 not applicable	Other requirements should be checked by PI.
§91.403 Instrument and Equipment for VFR operation	Complies	
§91.405 Instrument and Equipment for IFR operation	Not applicable	Not certificated for IFR operations.
§91.407 Instruments and Equipments for night and over-the-top operation	Excepted flashlight, complies if modification 07-3664 is installed	1. Modification and flashlight installation should be checked by PI before approval for night and over-the-top operation. 2. Other requirements in operation should be checked by PI.

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
§91.409 Mach number indicator	Not applicable	
§91.411 Radio communication equipment	Complies	Requirements in operation should be checked by PI.
§91.413 Navigation equipment	Complies	Requirements in operation should be checked by PI.
§91.415 Emergency and life-saving equipment	Complies excepted First aid kits, some sign (for fasten seat belt, no smoking)	The First aid kits and sign installation should be checked by PI.
§91.417 Additional emergency and Life equipments for over water operation	Not applicable.	
§91.419 Additional emergency and Life-saving equipment for rotorcraft over water flights	Not complies, except emergency floatation gear as optional equipment	If optional equipment and corrective action for other requirements installed, it should be checked by PI before approval of over water operations
§91.421 Additional emergency and Life-saving equipment for flights over designated land areas	Not complies	If corrective action for other requirements installed, it should be checked by PI before approval of designated land areas.
§91.423 Oxygen equipment-operation at high altitude	Not complies	Maximum operating altitude limited to 3000m.
§91.425 Equipment for operation in icing conditions	Not complies	Flights under icing and freezing rain are prohibited
§91.427 ATC transponder and altitude reporting equipment	Complies except Mode S transponder as optional equipment	1. Mode S transponder required for operation between the international transport airport and busy transport airport, operation at middle and high level route 2. Requirements in operation should be checked by PI.

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
§91.429 Altitude alerting system or device: Turbojet-powered civil airplanes.	Not applicable	
§91.431 Weather radar	Not applicable	Not certificated for operations under IFR
§91.433 Flight recorder	Not applicable	Maximum take-off weight 2500kg.
§91.435 Emergency locator transmitter	Complies	Requirements in operation should be checked by PI.
§91.437 Terrain awareness and warning system.	Not applicable	
§91.439 Traffic Alert and Collision Avoidance equipment and use	Not applicable	
§91.441 Radiation indicator	Not applicable	
Appendix B Category II Operations: Manual, Instruments, Equipment, and Maintenance	Not applicable	
Appendix C Operations within airspace designated as Minimum Navigation Performance Specification Airspace.	Not applicable	
Appendix D Operations in Reduced Vertical Separation Minimum(RVSM)	Not applicable	Maximum Operating Altitude 7010 m

5.3.2 CCAR-135 Compliance Checklist

Articles/Subject	Compliance	Remark/Limitation
§135.75 Inspectors credentials: admission to pilots' compartment	Complies	Utilize one of the central passenger sea t.
§135.146 Emergency locator transmitters	Complies except non-automatic activated ELT	Over water operations limited, unless lift raft installed with non-automatic activated ELT and

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
		checked by PI.
§135.149 Dual controls required.	Not applicable	Although type certified as single pilot, dual controls are available as optional equipment.
§135.151 Equipment requirements: General.	Complies	
§135.153 Public address and crewmember interphone systems.	Not applicable	
§135.155 Flight Data Recorder	Not applicable	Maximum take-off weight 2427kg.
§135.157 Cockpit voice recorders.	Not applicable	Maximum take-off weight 2427kg.
§135.159 Ground proximity warning system	Not applicable	
§135.161 Terrain awareness and warning system (TAWS)	Not applicable	
§135.163 Fire extinguishers: Passenger carrying aircraft.	Complies	
§135.165 Oxygen equipment requirements.	Not complies	Maximum operating altitude limited to 3000m.
§135.167 Equipment requirements: Carrying passengers under VFR at night or under VFR over the top conditions	Excepted flashlight, complies if modification 07-3664 is installed	Modification and flashlight installation should be checked by PI before approval for night and over-the-top operation.
§135.169 Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over the top.	Complies	
§135.171 Equipment requirements: Aircraft carrying passengers under IFR	Not applicable	Not certificated for operations under IFR
§135.173 Radio and navigational equipment requirement for extended overwater or IFR operations.	Complies	Overwater operation also requires additional emergency and Life-saving equipment as §91.419 and §135.175.

Aircraft Evaluation Report for AS350 B2, B3, and EC130 B4, T2

Articles/Subject	Compliance	Remark/Limitation
§135.175 Emergency equipment requirements for extended overwater operations.	Not complies	If optional emergency floatation gear and corrective action for other requirements installed, it should be checked by PI before approval of over water operations
§135.177 Shoulder harness installation requirement at flight crewmember stations.	Compliance even maximum 7 passenger seats	
§135.179 Airborne thunderstorm detection equipment requirements.	Not applicable	
§135.181 Airborne weather radar equipment requirements.	Not applicable	
§135.183 Emergency equipment requirements for aircraft having a passenger seating configuration of more than 19 passengers.	Not applicable	
§135.185 Additional emergency equipments	Not applicable	
§135.189 Airborne Collision Avoidance System (ACAS II)	Not applicable	
§135.197 Language requirement for placards and markings	Complies	Should be further checked by PI before operation
§135.199 Pitot heat indication systems.	Not applicable	
§135.203 Materials for compartment interiors	Not applicable	

Section 6: Other Evaluation Items

Not Applicable

Appendix: Point of Contact

First Evaluation:

CAAC AEG

Mr. Xue Shijun	Director, Aircraft Evaluation Division, Flight Standards Department
Mr. Li Chunsheng	Engineer, AEG Division, Civil Aviation Safety & Technology Center
Mr. Ma Yongwei	Deputy Director, Shenyang Aircraft Airworthiness Certification Center of CAAC
Mr. Liang Gang	Deputy Director, AEG Office, Shenyang Aircraft Airworthiness Certification Center of CAAC

Eurocopter France

Mr. Michel Gaubert	Operational Certification manager, Airworthiness Department
--------------------	---

Second Evaluation:

CAAC AEG

Mr. Zhang Lingzhi	Deputy Chief, Aircraft Evaluation Division, Flight Standards Department
Mr. Liu Yunlei	Engineer, AEG Division, Civil Aviation Safety & Technology Center
Mr. Liao Weiqiang	Inspector, Airworthiness Division, CAAC Shenzhen Safety Oversight Bureau

Airbus Helicopters

Ms. Diane DEBOISSY	ETIC - Airworthiness Department, Light Helicopters Certification, Airbus Helicopters
--------------------	--