



# AS350 SEAT SLIDER

STC 12/21E/9

## INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA)

OCEANIA AVIATION STC.OAL.005

AIRBUS HELICOPTERS AS350 B2, B3 & B3e

<b>Certified Master Copy</b> <b>TECHAIR LTD, DO 63214</b>	
REFERENCE	1040-01-02
SIGN	<i>J.D. Ophus</i>
DATE	25-Jan-17



TECHAIR LTD, DO 63214, CERTIFIED MASTER COPY, REF 1040-01-02

## CONTENTS

CONTENTS .....	2
RECORD OF ISSUES .....	3
LIST OF EFFECTIVE PAGES .....	3
1.0 GENERAL DESCRIPTION .....	4
2.0 SCOPE & APPLICABILITY.....	4
3.0 DEFINITIONS AND ABBREVIATIONS .....	4
4.0 REFERENCE PUBLICATIONS .....	5
5.0 AIRWORTHINESS LIMITATIONS.....	5
6.0 OPERATING PROCEDURES AND LIMITATIONS.....	6
7.0 REMOVAL AND INSTALLATION INSTRUCTIONS .....	7
8.0 FAULT FINDING.....	9
9.0 WEIGHT & BALANCE CHANGES .....	9
10.0 SERVICING INFORMATION .....	9
11.0 PARTS LIST .....	9
12.0 INSPECTION REQUIREMENTS .....	10
13.0 SPECIAL INSPECTION REQUIREMENTS.....	11
14.0 RECOMMENDED OVERHAUL INTERVALS.....	11
15.0 APPLICATION OF PROTECTIVE TREATMENTS.....	11
16.0 LIFTING AND SHORING.....	11
17.0 LEVELING AND WEIGHING .....	11
18.0 TOWING AND TAXYING.....	11
19.0 PARKING AND MOORING.....	11
20.0 REVISIONS.....	11
21.0 DEFECT RECTIFICATION .....	12
FEEDBACK & OCCURRENCE REPORT .....	13

## RECORD OF ISSUES

ISSUE	DATE	DESCRIPTION	PARAGRAPH	PAGES AFFECTED
1	3-Nov-16	INITIAL RELEASE	ALL	1 - 13
2	22-Dec-16	UPDATE FOLLOWING REVIEW	ALL	1 - 13
3	22-Dec-16	CONTINUED AIRWORTHINESS RESPONSIBILITY	2.0	4
4	25-Jan-17	UPDATED TO INCL. AS350 B2.	Effectivity	1 & 4

## LIST OF EFFECTIVE PAGES

PAGES	ISSUE	DATE
1	4	25-Jan-17
2	4	25-Jan-17
3	4	25-Jan-17
4	4	25-Jan-17
5	4	25-Jan-17
6	4	25-Jan-17
7	4	25-Jan-17

PAGES	ISSUE	DATE
8	4	25-Jan-17
9	4	25-Jan-17
10	4	25-Jan-17
11	4	25-Jan-17
12	4	25-Jan-17
13	4	25-Jan-17

### DOCUMENTATION SUPPORT

It is the responsibility of the user of this document to verify that this is the latest revision released by OAL.  
A list of the current ICA is published on OAL's website

Use the contact information below to get the latest version of this and other documents.

#### Oceania Aviation Limited – Airborne Systems

1 Harvard Lane, Ardmore Airfield, Auckland, N.Z.

PO Box 72-053, Papakura, N.Z.

Ph. +64 9 296 2644

Fax +64 9 296 2645

[www.airborne-systems.co.nz](http://www.airborne-systems.co.nz)



## 1.0 GENERAL DESCRIPTION



**Figure 1. Seat Shift Plate Installation**

This modification installs an alloy seat shift plate to the cabin floor on the Pilot's side of the rotorcraft. It replaces the existing seat rails and reinstalls the Pilot's seat onto the plate which has a lateral sliding mechanism to enable the Pilot to move the seat laterally outboard making hook and sling more visible, creating a safer operational environment.

The installation also includes a collective extension grip, a RHS pedal extension, a pilots kick plate and an adjustment to the pilots cyclic position, all of which allow the pilot to safely operate the flight controls during external underslung load operations.

## 2.0 SCOPE & APPLICABILITY

This document contains the Instructions for Continued Airworthiness (ICA) for Airbus Helicopters AS350 B2, B3 & B3e series rotorcraft modified in accordance with Oceania Aviation Limited STC.OAL.005 pilot seat shift plate installation. Oceania Aviation Limited is responsible for the continued airworthiness of this STC.

Information in this document supplements information in the basic rotorcraft maintenance manual. For information not contained in this supplement refer to the basic rotorcraft maintenance manuals.

## 3.0 DEFINITIONS AND ABBREVIATIONS

AC	Advisory Circular
AMM	Aircraft Maintenance Manual
FMS	Flight Manual Supplement
IAW	In Accordance With
ICA	Instructions for Continues Airworthiness
OAL	Oceania Aviation Limited
SPM	Standard Practices Manual

#### 4.0 REFERENCE PUBLICATIONS

NOTES: THE PUBLICATIONS LISTED BELOW COMPRISE AN INTEGRAL PART OF THE ICA DOCUMENTATION. IT IS THE OPERATORS RESPONSIBILITY TO ENSURE THAT THE LATEST REVISION STATUS OF ALL DOCUMENTATION IS USED FOR MAINTENANCE.

THE INSTRUCTIONS FOR CONTINUED AIRWORTHINESS PUBLISHED HEREIN REQUIRE EXPLICIT REFERENCE TO THE FOLLOWING PUBLICATIONS.

Document No.	Title	Rev.
STC.OAL.005-FMS	Flight Manual Supplement, AS350 Seat Slider Installation.	Latest
STC.OAL.005-DWG01	AS350 Energy Absorbing Seat Slider Manufacturing Assembly.	Latest
STC.OAL.005-INS01	Installation drawing – Seat Shift Plate.	Latest
STC.OAL.005-INS02	Installation drawing – Collective Extension	Latest
STC.OAL.005-INS03	Installation drawing – Pedal Extension	Latest
AS350 B2-B3 AMM	Airbus Helicopters AS350 B2-B3 Aircraft Maintenance Manual	Latest
Airbus SPM	Airbus Helicopters Standard Practices Manual.	Latest
FAA AC 43.13-1B	Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair	Latest

#### 5.0 AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations Section is NZCAA approved and specifies maintenance required under Part 91.603 of the NZ Civil Aviation Rules unless an alternative program has been NZCAA approved.

There are no Airworthiness Limitations introduced as a result of this modification.



## 6.0 OPERATING PROCEDURES AND LIMITATIONS

### Operating Procedures and Limitations

Operating procedures and limitations for the rotorcraft with the seat slider installation embodied are contained within the Rotorcraft Flight Manual Supplement listed in §4.0.

### Placards

The following placards are installed on the main instrument panel in clear view of the pilot:

**PILOT SEAT SHIFT PLATE INSTALLATION:**  
**LOCATION OF PILOT SEAT POSITION NOT TO BE CHANGED IN FLIGHT**  
**CHECK CYCLIC NEUTRAL POSITION BEFORE FLIGHT.**

**EXTERNAL LOAD OPERATIONS:**  
**REMOVE PORT CYCLIC STICK WHEN PILOT'S**  
**OUTBOARD SEAT POSITION IS UTILISED**

### Occurrence Reporting

In the event of any occurrence associated with use of the seat slider, complete the attached feedback and occurrence form (pg. 13).

## 7.0 REMOVAL AND INSTALLATION INSTRUCTIONS

### 7.1 GENERAL NOTES:

- 7.1.1. Transfer of the seat shift plate STC to another aircraft requires the written consent of Oceania Aviation Ltd (OAL).
- 7.1.2. Every seat shift plate component has a unique data plate with the serial number, modification number and effectivity. This information is maintained in the OAL registry for each seat shift plate customer.
- 7.1.3. The following installation and removal instructions shall be used with reference to the installation data listed in §4.0.
- 7.1.4. Unless otherwise specified all maintenance tasks shall be performed IAW the applicable sections of the AS350 AMM.
- 7.1.5. All work is to be carried out using standard aviation methods, techniques and practices of FAA AC 43.13-1B.

### 7.2 REMOVAL – SEAT SHIFT PLATE

- 7.2.1. Remove the pilot's seat IAW AS350 AMM §25-21-00, 4-1.
- 7.2.2. If applicable remove the fire extinguisher from its mounting bracket.
- 7.2.3. With reference to STC.OAL.005-INS01 remove QTY 40 screws attaching seat plate to rotorcraft floor.
- 7.2.4. Remove the P/N STC.OAL.005-2( ) seat shift plate assembly from the rotorcraft.

### 7.3 REMOVAL – PILOT'S COLLECTIVE EXTENSION

- 7.3.1. With reference to STC.OAL.005-INS02 remove QTY 2 bolts which attach collective extension to the Onboard Systems cargo hook hydraulic release lever.
- 7.3.2. Remove the P/N STC.OAL.005-7 collective extension, and attachment hardware, from the rotorcraft.

### 7.4 REMOVAL – PILOT'S PEDAL EXTENSION

- 7.4.1. With reference to STC.OAL.005-INS03 remove QTY 1 nut/bolt which attaches the pilot's pedal extension.
- 7.4.2. Remove the P/N STC.OAL.005-4 pedal extension assembly from the rotorcraft.

### 7.5 REMOVAL – KICK PLATE

- 7.5.1. With reference to STC.OAL.005-INS kick plate installation detail remove the QTY 2 screws which attach the kick plate to the floor.
- 7.5.2. Remove the P/N STC.OAL.005-5 kick plate from the rotorcraft.

### 7.6 REMOVAL – PLACARDS

- 7.6.1. Remove the placards identified in §6.0 from the main instrument panel.
- 7.6.2. Remove any adhesive residue and clean the main instrument panel in accordance with the Airbus SPM §20-04.



---

## **7.7 INSTALLATION – SEAT SHIFT PLATE**

- 7.7.1. With reference to STC.OAL.005-INS01 align the P/N STC.OAL.005-2( ) seat shift plate assembly with seat rail mounting holes on the rotorcraft floor.
- 7.7.2. With reference to STC.OAL.005-INS01 install QTY 40 screws attaching seat plate to rotorcraft floor.
- 7.7.3. Install the Pilot seat to the seat shift plate IAW AS350 AMM §25-21-00, 4-1.

## **7.8 INSTALLATION – PILOT'S COLLECTIVE EXTENSION**

- 7.8.1. Install the P/N STC.OAL.005-7 collective extension grip in accordance with STC.OAL.005-INS02.

## **7.9 INSTALLATION – PILOT'S PEDAL EXTENSION**

- 7.9.1. Install the P/N STC.OAL.005-4 pedal extension in accordance with STC.OAL.005-INS03.

## **7.10 INSTALLATION – KICK PLATE**

- 7.10.1. Install the P/N STC.OAL.005-5 kick plate in accordance with STC.OAL.005-INS kick plate installation detail.

## **7.11 INSTALLATION – PLACARDS**

- 7.11.1. Install QTY 2 placards identified in §6.0 on the main instrument panel in clear view of the pilot.

## **7.12 ADJUSTMENT – PILOT'S CYCLIC**

- 7.12.1. When making adjustments to the pilot's cyclic controls ensure all requirements of the AS350 AMM §67-10-00 are observed.
- 7.12.2. Adjust the cyclic control by rotating the lateral control rod (P/No SN106L106-365) as required (up to a maximum of 2 turns) to bring the cyclic hand piece in line with the selected seat position.

## **7.13 ADJUSTMENT – PILOT SEAT LATERAL POSITION**

- 7.13.1. Select the desired locations for the pilot's seat by lifting the retaining pin on the top of the forward rail assembly under the seat. Slide the seat to the desired location and release the retaining pin.

## **7.14 FUNCTIONAL TESTING**

- 7.14.1. With the Pilot's seat installed translate the seat slider laterally, and the seat forward and aft, ensuring the seat lock and slider lock both operate correctly.
- 7.14.2. Ensure the seat is properly locked by shaking the seat in and out (laterally). If movement is detected check the retaining pin for proper engagement. Excess lateral movement of the seat with the retaining pin properly engaged is prohibited.
- 7.14.3. Check for free and full movement of all controls and ensure that the pilot's pedal extension does not interfere with the RH chin window.
- 7.14.4. Ensure that the cargo hook hydraulic release lever correctly operates the cargo hook release mechanism.
- 7.14.5. Ensure the cyclic neutral position is centred about the selected seating position.



## 8.0 FAULT FINDING

In the event of any difficulty installing, operating or maintaining the seat shift installation discontinue use and complete the attached Feedback and Occurrence Report.

## 9.0 WEIGHT & BALANCE CHANGES

The installation affects the equipped empty weight (EEW) and CoG position of the Rotorcraft as follows:

Item	Weight (kg)	Arm Long (m)	Long Mom (kg.m)	Arm Lat (m)	Lat Mom (kg.m)
Seat shift plate	7.0	1.550	10.85	0.367	20.56
<b>Total</b>	<b>7.0</b>	<b>1.550</b>	<b>10.85</b>	<b>0.367</b>	<b>20.56</b>

## 10.0 SERVICING INFORMATION

Cleaning of the seat shift plate installation components shall be accomplished in accordance with the Airbus SPM §20-04.

## 11.0 PARTS LIST

Refer to the following installation drawings parts lists; replacement of parts shall be accomplished in accordance with §7.0 as applicable.

- STC.OAL.005-INS01, Installation drawing – Seat Shift Plate.
- STC.OAL.005-INS02, Installation drawing – Collective Extension.
- STC.OAL.005-INS03, Installation drawing – Pedal Extension.

## 12.0 INSPECTION REQUIREMENTS

Refer to §12.3 of these instructions for defect classification and §21.0 for defect rectification procedures.

### 12.1 DAILY / PRE-FLIGHT INSPECTION:

The following checks should be carried out each time the seat shift plate is installed, at the start of each day of operation, and before every flight with the seat shift plate installed.

- a. Perform a functional check of the seat per §7.14.
- b. Check the pilot's collective extension and pedal extension for security.

### 12.2 100HR / ANNUAL INSPECTION:

The following checks should be carried out every 100 hours or every 12 calendar months of rotorcraft operation, whichever occurs first, following embodiment of this modification.

- a. Remove the Pilot's seat.
- b. Check that the sprung loaded locking pin operates crisply and snaps crisply into its locking holes.
- c. Clean any debris or deposits from the locking holes and the sliding slot.
- d. Inspect sliding top frame for cracks and corrosion, no cracks allowed, if any cracks or corrosion found contact Oceania Aviation for a replacement part prior to release for service.
- e. Nicks and scratches up to 0.05mm are allowed. Do not attempt to polish these out.
- f. Check for loose or missing hardware tighten or replace with the same part.
- g. Check the collective extension assembly for cracks and corrosion, no cracks allowed. If any cracks or corrosion found contact Oceania for a replacement part prior to release for service.
- h. Remove the pedal extension and check extension for cracks and corrosion, no cracks allowed. If any cracks or corrosion found contact Oceania for a replacement part prior to release for service.
- i. Check all securing hardware for cracks and corrosion, no cracks allowed. If any found, replace securing hardware with the same part prior to release for service.
- j. Reinstall pedal extension and pilot's seat.
- k. Inspect the kick plate for cracks and corrosion, no cracks allowed, if any cracks or corrosion found contact Oceania Aviation for a replacement part prior to release for service.

### 12.3 DEFECT CLASSIFICATION

For the purposes of this installation, defects are classified as follows. All defects are classified as Class II, unless specifically described as Class I.

#### 12.3.1. CLASS I

No immediate action required. Flight operations, and use of the seat shift plate installation, may continue and the operator may elect to rectify defects when convenient.

Class I damage is any of the following:

- Nicks, scratches, dents or surface corrosion, to any metallic structure less than 0.05mm depth.

#### 12.3.2. CLASS II

Rectification action required. Use of the damaged component is discontinued and must be removed before further flight. Any Class II defects must be reported to Oceania Aviation Limited using the Feedback & Occurrence Report supplied.

Class II damage includes, but is not limited to:

- Cracking of any metallic structure or hardware.
- Loose or missing hardware or fasteners.



### **13.0 SPECIAL INSPECTION REQUIREMENTS**

In addition to special inspection events as defined in the AS350 B2-B3 AMM, Functional Tests and 100 Hour Inspections need to take place in the event of a hard landing, lightning strike, or water immersion.

### **14.0 RECOMMENDED OVERHAUL INTERVALS**

No recommended overhaul intervals exist for the seat shift plate installation.

### **15.0 APPLICATION OF PROTECTIVE TREATMENTS**

No protective treatments required.

### **16.0 LIFTING AND SHORING**

Lifting and Shoring can be accomplished in accordance with the AS350 AMM §07-00 with the seat shift plate installed.

### **17.0 LEVELING AND WEIGHING**

Levelling and weighing can be accomplished in accordance with AS350 AMM §08-00 with the seat shift plate installed.

### **18.0 TOWING AND TAXYING**

Taxying can be accomplished per AS350 AMM §09-00 with the seat shift plate installed.

### **19.0 PARKING AND MOORING**

Parking and Mooring can be accomplished in accordance with AS350 AMM §10-00 with the seat shift plate installed.

### **20.0 REVISIONS**

Required revisions to this ICA will be made by OAL.

A list of current documents is published on OAL's website.

Revision updates and additional copies of this ICA may be obtained by contacting OAL. When the latest update is received, the previous revision in its entirety should be discarded. Ensure that all pages of the document are marked as the latest revision.

ICA revisions will be distributed using customer Purchase Order information.

---

## **21.0 DEFECT RECTIFICATION**

There are no approved repair schemes provided by this ICA manual. For approved repair instructions, component overhaul, maintenance and spares contact OAL:

**Oceania Aviation Limited – Airborne Systems**

1 Harvard Lane, Ardmore Airfield, Auckland, N.Z.

PO Box 72-053, Papakura 2244, N.Z.

Ph. 09 296 2644

Fax 09 296 2645

[www.airborne-systems.co.nz](http://www.airborne-systems.co.nz)



OCEANIA AVIATION LIMITED PART 148 AIRCRAFT MANUFACTURING ORGANISATION  
**FEEDBACK & OCCURRENCE REPORT**  
OAL 6-11 (FOR)

CONTACT DETAILS			
OPERATOR		CONTACT PERSON	
PHONE		EMAIL	
MOBILE		FAX	

USE THIS FORM TO... (PLEASE TICK ONE)	
1. Report a defect or damage to a product	
2. Report an occurrence, incident or event affecting, or caused by a product or	
3. Request or suggest a change to a product or documentation	

PRODUCT DETAILS				
DESCRIPTION				
MOD#		S/N		DATE INSTALLED

AIRCRAFT DETAILS			
REGISTRATION		MODEL	
S/N		TTIS	

OCCURRENCE DETAILS			
LOCATION			
DATE		TIME	
ACTIVITY/ PHASE OF FLIGHT			

DESCRIPTION (ATTACH ADDITIONAL PAGES AS REQUIRED)

Return this form to Oceania Aviation Limited, Airborne Systems Division, PO Box 72-053, Papakura 2244, N.Z., Ph. +64 9 296 2644, Fax. +64 9 296 2645, Email.  
[russell@ohl.co.nz](mailto:russell@ohl.co.nz), [www.airborne-systems.co.nz](http://www.airborne-systems.co.nz)