



Explanatory Notes
Transition from Operational Evaluation Board (OEB) Reports
to Operational Suitability Data (OSD)
for Flight Crew Data

27 March 2015

1. General

Based on request from industry, operational evaluations have been conducted by the JAA and then by EASA since 1997. Associated OEB reports are published on the EASA website in support of Approved Training Organisations (ATO) and operators, for the aircraft, equipment and/or operations which have been evaluated in the relevant OEB reports.

With the entry into force of Commission Regulation (EU) No 69/2014 on 18 February 2014 the concept of Operational Suitability Data (OSD) was implemented, integrating operational evaluation elements into the certification design process as foreseen in the Basic Regulation¹. Available operational suitability data are then referenced in the applicable Type Certificate Data Sheet (TCDS).

2. Transition of existing OEB reports to OSD

Commission Regulation (EU) No 69/2014 introduces Article 7a of Commission Regulation (EU) No 748/2012. Paragraph 3 of Article 7a states: "*Operational Evaluation Board reports and master minimum equipment lists issued in accordance with JAA procedures or by the Agency before the entry into force of this Regulation [18 February 2014] shall be deemed to constitute the operational suitability data approved in accordance with point 21.A.21(e) of Annex I (Part 21) and shall be included in the relevant type-certificate. Before 18 June 2014 the relevant type-certificate holders shall propose to the Agency a division of the operational suitability data in mandatory data and non-mandatory data.*"

The Agency is in the process of reviewing the division of the operational suitability data of OEB reports. Completed reviews may be attached to published OEB reports on the EASA website as an interim measure, or may lead to completely transposed OSD documents held by the TC/STC holders.

The transition of OEB reports will be completed with the inclusion of OSD references in the relevant TCDS, the OEB reports concerned will be withdrawn from the EASA website, and associated OSD documents will be held by the manufacturer (TC/STC holder).

3. Provision of Operational Suitability Data (OSD) to users

Commission Regulation (EU) No 69/2014 amends Annex I (Part 21) to Regulation (EU) No 748/2012, para. 21.A.62 which regulates the provision of operational suitability data, as follows:

"*The holder of the type-certificate or restricted type-certificate shall make available:*

- (a) at least one set of complete operational suitability data prepared in accordance with the applicable operational suitability certification basis, to all known EU operators of the aircraft, before the operational suitability data must be used by a training organisation or an EU operator; and*
- (b) any change to the operational suitability data to all known EU operators of the aircraft; and*
- (c) on request, the relevant data referred to in points (a) and (b) above, to:*

¹ REGULATION (EC) No 216/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC, as amended.

1. *the competent authority responsible for verifying conformity with one or more elements of this set of operational suitability data; and*
2. *any person required to comply with one or more elements of this set of operational suitability data."*

4. Integration of OSD provisions by users

4.1 OSD Flight Crew (OSD FC) Data

In addition to reference of OSD FC data in the TCDS, the Agency maintains the EASA Type Rating & License Endorsement Lists Flight Crew on its website, one for Helicopters and one for all other aircraft. These lists constitute the class and type of aircraft categorisations in accordance with Part-FCL². The lists also reference Operational Evaluation Board (OEB) Flight Crew reports and Operational Suitability Data (OSD) Flight Crew, where available.

Type rating training approved before the approval of the minimum syllabus of pilot type rating training in the Operational Suitability Data for the relevant type of aircraft shall include the mandatory training elements not later than 18 December 2017 or within two years after the operational suitability data was approved, whichever is the latest³.

The ATO shall ensure that students meet all the pre-requisites for training as defined in the mandatory part of the operational suitability data, if established [Regulation (EU) No 748/2012, ORA.ATO.145]³.

Operators shall ensure that flight crew members who are already in operation and have completed training which did not include the mandatory elements established in the relevant operational suitability data, undertake training covering those mandatory elements not later than 18 December 2017 or two years after the approval of the operational suitability data, whichever is the latest³.

Annex III (PART-ORO) and Annex V (PART-SPA) to Regulation (EU) No 965/2012 contain further amendments.

4. Further transition arrangements

Commission Regulation (EU) No 69/2014, No. 70/2014, and No. 71/2014 should be consulted for further transition arrangements.

² Annex I of Commission Regulation (EU) No 1178/2011 of 3 November 2011 ("Part-FCL"), as amended

³ Commission Regulation (EU) No 70/2014 of 27 January 2014 amending Regulation (EU) No 1178/2011



EUROPEAN AVIATION SAFETY AGENCY



Operational Evaluation Board Report

AIRBUS A300-600/A310

STOP RUDDER INPUT WARNING (SRIW)

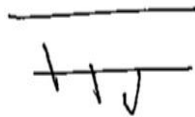
OPS/FCL Report

08 August 2012

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**AIRBUS A300-600/A310
STOP RUDDER INPUT WARNING (SRIW)**

Operational Evaluation Board (OEB)



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Revision Record

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Original Draft	Initial Evaluation	12 June 2012
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Acronyms

AEGAircraft Evaluation Group
CBTComputer Based Training
CPDCommon Procedures Document for conducting Operational Evaluation Boards, dated 10 June 2004
EASAEuropean Aviation Safety Agency
FAAFederal Aviation Administration
FFSFull Flight Simulator (Level C or D)
FCCFlight Control Computer
FCOMFlight Crew Operations Manual
FSBFlight Standardization Board
IAWIn accordance with
OEBOperational Evaluation Board
SRIWStop Rudder Input Warning

OEB Group Composition

Name	Capacity	Task
Kevin Bonfield	EASA	OEB Chairman
Herbert Meyer	EASA	Section Manager Operational Suitability
Fabrice Montier	DGAC	Operational Evaluation Expert
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Executive Summary

In order to address NTSB recommendations A-04-58 and A-04-63 (from AAL 587 accident), and also with a link with NTSB recommendation A-04-44 (from AAL 903 incident), Airbus has developed a new “Stop Rudder Inputs” warning system for the A300-600/A310 (Airbus Modification 13593).

In a joint operational evaluation, the EASA OEB and the FAA AEG Flight Standardization Board evaluated the flight crew training programme for the Stop Rudder Input Warning (SRIW) System. This evaluation was conducted by analysis of the CBT training programme and was confirmed by a simulator validation exercise.

This OEB report addresses only the Stop Rudder Input Warning, as there is no existing EASA OEB evaluation for the A300/A310 aircraft.

EASA found the Airbus A300-600/A310 Stop Rudder Input Warning operationally suitable for all phases of flight and the proposed training syllabus appropriate.

1. AIRBUS A300-600/A310 STOP RUDDER INPUT WARNING SYSTEM

1.1 Description of the modification

In case of excessive rudder reversal control input, the SRIW system provides a dedicated red warning light in front of each pilot in the vicinity of the auto land warning light, as well as an aural warning “Stop Rudder Input”.

These warnings are triggered through a detection logic in the FCC (auto pilot computer). Rudder order is deduced from position values derived from the autopilot yaw servomotor output lever arm.

1.2 SRIW System Evaluation

1.2.1 Using the methodology from the EASA Common Procedures Document (CPD), training at Level B was proposed as appropriate to cover the differences in terms of knowledge and procedures when introducing this modification in the current A300-600/A310 fleet. Training level B (aided instruction) typically employs means such as Computer Based Training (CBT), stand-up lectures, or videotapes.

For this purpose, Airbus has developed a specific CBT module “A310/A300-600 RUDDER-REVERSAL WARNING-SYSTEM, FLIGHT” which includes an embedded video presentation.

Furthermore, the operational documentation has been amended to include a description of the system (FCOM, Vol. 1) in a new chapter (the warning and its logics), and to include the new procedure (FCOM, Vol. 2 - Emergency Procedures).

1.2.2 The OEB reviewed the proposed CBT and SRIW system documentation. In addition, an evaluation of the SRIW system was conducted using an A300-600 Engineering simulator at Airbus facility in Toulouse, in March 2012. The evaluation of this function into the simulator verified the validity of the proposed Level B training.

Therefore, the OEB recommends familiarization training at level B, using the CBT and embedded video as presented by Airbus.

2. PREREQUISITES FOR STOP RUDDER INPUT WARNING TRAINING

2.1 The prerequisite to Stop Rudder Input Warning training is prior training, and type rating on the A300-600/A310. Stop Rudder Input Warning training may however be integrated into the type rating training.

3 STOP RUDDER INPUT WARNING TRAINING

3.1 The purpose of the CBT is to familiarise flight crew with the SRIW system and the associated procedure during initial type rating and recurrent courses.

Flight crew member initial training can be accomplished by reference to the Computer Based Training module including technical principle and flight procedure complemented with a video.

3.2 The following training references / recommendations concerning the use of the rudder have been provided to all operators:

- FCOM (“upset situation”)
- FCOM bulletin 827/1 “use of rudder on transport category airplanes”
- FCTM (“use of rudder”)
- Airbus type rating for WB, a specific exercise “use of rudder at low and high speed”
- Instructor DVD presentations “rudder and load” and “upset recovery”

Additional academic lecture and presentations are available which are addressing the correct use of rudder, including an Airbus presentation “Rudder and Loads”.

3.3 Full Flight Simulator (FFS, Level C or D)

Where a FFS is fitted with the system, training should be conducted as a demonstration of the warning on the ground during cockpit preparation and briefing on the procedure. The simulated flight demonstration should be in accordance with the Airbus A310/300-600 Standard Course Normal Phase Flight Crew Training Programme (copy held on file at EASA).

Special Emphasis ground training shall be conducted in the use of rudder on transport category airplanes.

4 STOP RUDDER INPUT WARNING CHECKING REQUIREMENTS

4.1 There are no specific checking requirements associated with the Stop Rudder Input Warning.

5. STOP RUDDER INPUT WARNING RECURRENT TRAINING REQUIREMENTS

5.1 There are no specific recurrent training requirements relating to the Stop Rudder Input Warning.

6 STOP RUDDER INPUT WARNING RECURRENT CHECKING REQUIREMENTS

6.1 There are no specific recurrent checking requirements relating to the Stop Rudder Input Warning.

7. STOP RUDDER INPUT WARNING CURRENCY REQUIREMENTS

7.1 There are no currency requirements for the Stop Rudder Input Warning.