

## **Explanatory Statement**

### **Civil Aviation Safety Regulations 1998**

#### **Prescribed qualification standards for FSTD (MCC training – aeroplane) Instrument 2015 (Edition 1)**

##### **Purpose**

This instrument prescribes qualification standards for flight simulator training devices (*FSTD*) for use in multi-crew cooperation training for aeroplanes. It is made for the purpose of relevant provisions in Part 61 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

##### **Legislation**

Section 98 of the *Civil Aviation Act 1988* (the *Act*) empowers the Governor-General to make regulations for the Act and the safety of air navigation.

Under paragraph 98 (5A) (a) of the Act, regulations made for that provision may empower CASA to issue instruments in relation to matters affecting the safe navigation and operation of aircraft. Under subsection 98 (5AA) of the Act, an instrument issued under paragraph 98 (5A) (a) is a legislative instrument if expressed to apply in relation to a class of persons, aircraft or aeronautical parts, rather than to a particular person, aircraft or part.

The *Civil Aviation Legislation Amendment Regulation 2013 (No. 1)* (the **amendment regulation**) was made under section 98 of the Act to include new Part 61 of CASR 1998 (**CASR Part 61**) for the safety regulation of flight crew licensing.

Regulation 61.010 of CASR 1998 defines a **flight simulation training device** as including “(d) a device that meets the qualification standards prescribed by a legislative instrument under regulation 61.045” of CASR 1998.

Regulation 61.045 of CASR 1998 provides that, for paragraph 98 (5A) (a) of the Act, CASA may, by legislative instrument, “prescribe qualification standards for flight simulation training devices”.

A flight simulator that is qualified by CASA under Part 60 of CASR 1998 could be used for MCC training if it meets the standards set out in such a legislative instrument and its use otherwise meets the requirements of Part 61.

##### **The legislative instrument**

The legislative instrument prescribes the qualification standards for FSTD that are to be used in multi-crew cooperation training for aeroplanes. This is the flight training that is required for a person to conduct a flight in an aeroplane as a multi-crew operation, or to qualify for an air transport pilot licence. The FSTD standards in the legislative instrument apply for an FSTD designed to simulate a multi-crew aeroplane, meaning a turbine-powered multi-engine aeroplane that is fitted with a pressurisation system and a retractable undercarriage; and that is equipped for multi-crew operations under the instrument flight rules (IFR). The standards are technical and detailed. The following is a short summary only.

Section 1 is the naming provision.

Under section 2, Commencement, the instrument commences on the day after registration.

Under section 3, Definitions etc., relevant words and phrases used in the instrument are defined. Generally, subject to the specific definitions set out, words and phrases have the same meaning as in Part 61 of CASR 1998. Here are some particular definitions:

**multi-crew aeroplane** means a turbine-powered multi-engine aeroplane, that is:

- (a) fitted with:
  - (i) a pressurisation and oxygen system; and
  - (ii) a retractable undercarriage; and
  - (iii) an engine fire detection and extinguishment system; and
  - (iv) a weather radar; and
- (b) equipped for multi-crew operations under the IFR.

**no discernible latency** means that any observable delay in a simulated system responding to a simulated control input is no greater than the observable delay (if any) in a multi-crew aeroplane responding to the same actual control input;

**simulate** means to reproduce, at least in all essential respects, the actions and reactions of a multi-crew aeroplane, and its systems and equipment, when on the ground or in flight, including associated noise, attitude, motion, and external environmental effects; and

**transport delay** means the total computer processing time required for a simulated system to respond to a simulated control input.

Under section 4, Application, the requirements set out in Schedule 1 are prescribed as qualification standards for an FSTD, to be used for MCC training for a multi-crew aeroplane. The standards are made under regulation 61.045 of CASR 1998, for paragraph (d) of the definition of **flight simulation training device** in regulation 61.010 of CASR 1998.

Schedule 1, Qualification standards for an FSTD used for MCC training for a multi-crew aeroplane, sets out the technical details of the FSTD standards. The Schedule is comprised of 13 sections (one Reserved) prescribing the standards to be complied with in relation to:

1. Flight deck or cockpit layout and structure
2. Flight dynamics model (aircraft and engines)
3. Ground reaction and handling
4. Aircraft systems
5. Flight control forces and control travel
6. Sound cues
7. Visual display cues
8. [Motion cues — this is Reserved. There is no requirement for a motion system for MCC training.]
9. Air traffic control environment simulation
10. Navigation environment — replication of real-world operations
11. Atmosphere and weather environment
12. Airports and terrain
13. Miscellaneous.

### **Legislative Instruments Act 2003 (the LIA)**

As noted above, the instrument is made “for paragraph 98 (5A) (a) of the Act”.

Under subsection 98 (5AA) of the Act, an instrument issued under paragraph 98 (5A) (a) is a legislative instrument if expressed to apply in relation to a class of persons. The

instrument applies to the class of persons constituted by would-be manufacturers and operators of FSTD which must comply with the Part 61 standards if they are to be used for Part 61 purposes in relation to multi-crew cooperation training.

In addition, regulation 61.045 expressly states that the instrument is to be a legislative instrument. Under subsection 15AE (1) of the *Acts Interpretation Act 1901*, if a provision of a law requires or permits an instrument that is described as a legislative instrument to be made, then an instrument so made must be in writing and is a legislative instrument.

Finally, under subsection 5 (2) of the LIA, an instrument made under delegated parliamentary powers is, in effect, taken to be a legislative instrument if it determines the law or alters the content of the law, rather than merely applying existing law, and it directly or indirectly creates rights or obligations. The instrument creates new compliance standards for certain flight training devices and these must be complied with for the purposes of multi-crew cooperation training.

Therefore, the instrument is a legislative instrument subject to registration, and tabling and disallowance in the Parliament, under sections 24, and 38 and 42 of the LIA.

### **Consultation**

For section 17 of the LIA, the following consultation was undertaken by CASA.

In December 2014, the Flight Crew Licensing (*FCL*) Standards Sub-committee of the Standards Consultative Committee (the *SCC*), established an MCC training working group for the development of standards for MCC training devices. (The SCC is a high-level CASA/industry consultation forum, often operating through sub-committees.) Tertiary and general aviation training providers, with expertise in the development of non-technical skills training, were also represented through overlapping FCL Sub-committee membership.

Initial discussions, focusing on the standards developed by the European Aviation Safety Agency (*EASA*) for equivalent devices (EASA Document CS-FSTD(A)), concluded that these standards were, in some respects, in excess of what was required for a CASR Part 61 FSTD to achieve safe and effective MCC training outcomes.

A preliminary draft of CASA standards for an MCC FSTD was prepared and, in February 2015, posted on the FCL Sub-committee forum's website for industry consideration. This consultation draft was also sent to a number of prospective training providers and manufacturers for their comments.

Taking into account the comments and representations progressively received, in March, April and May 2015, CASA developed subsequent consultation drafts which were posted on the FCL Sub-committee forum website, and circulated to industry.

Some importers of devices, manufactured overseas specifically to EASA standards, were critical of the proposed CASA standards. EASA does have some higher manufacturing and performance standards than are prescribed by CASA in the final instrument. However, in the light of the overall consultation, and CASA's own safety assessment, it was not considered that these individual higher standards provided such significant additional safety benefits as would justify the significant added manufacturing costs of meeting the higher standard.

**Office of Best Practice Regulation (OBPR)**

A Regulation Impact Statement (*RIS*) was prepared by CASA for the regulations which constitute the head of power for the legislative instrument, namely, the amendment regulation. This RIS was assessed by OBPR as meeting the Australian Government's Best Practice Regulation requirements (OBPR ID: 2777). The legislative instrument is consequential to the amendment regulation and does not require a separate RIS.

**Statement of Compatibility with Human Rights**

The Statement in Appendix 1 is prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. The legislative instrument does not directly engage any of the applicable rights or freedoms, and is compatible with human rights, as it does not directly raise any human rights issues. To the extent that it may indirectly limit certain human rights, those limitations are essential, reasonable and proportionate in the interests of aviation safety (see Appendix 1).

**Commencement and making**

The legislative instrument commences on the day after registration. It has been made by the Director of Aviation Safety, on behalf of CASA, in accordance with subsection 73 (2) of the Act.

[*Prescribed qualification standards for FSTD (MCC training – aeroplane) Instrument 2015 (Edition 1)*]

## Statement of Compatibility with Human Rights

*Prepared in accordance with Part 3 of the  
Human Rights (Parliamentary Scrutiny) Act 2011*

### *Civil Aviation Safety Regulations 1998*

#### **Prescribed qualification standards for FSTD (MCC training – aeroplane) Instrument 2015 (Edition 1)**

This legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

#### **Overview of the legislative instrument**

This instrument prescribes qualification standards for flight simulation training devices (*FSTD*) for use in multi-crew cooperation training for aeroplanes. It is made for the purpose of relevant provisions in Part 61 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

Regulation 61.010 of CASR 1998 defines a *flight simulation training device* as including “(d) a device that meets the qualification standards prescribed by a legislative instrument under regulation 61.045” of CASR 1998.

Regulation 61.045 of CASR 1998 provides that CASA may, by legislative instrument, “prescribe qualification standards for flight simulation training devices”.

The legislative instrument prescribes the qualification standards for FSTD that are to be used in multi-crew cooperation training for aeroplanes. This is the flight training that is required for a person to conduct a flight in an aeroplane as a multi-crew operation, or to qualify for an air transport pilot licence.

These requirements are consistent with Australia’s obligations of conformity to the Chicago Convention on International Civil Aviation, its Protocols and Annexes.

#### **Human rights implications**

To the extent that certain flight simulation training devices may not comply with the new standards, it might be said that the right to work, equality and non-discrimination under the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights (ICESCR) are indirectly engaged for owners of non-compliant devices since they cannot provide relevant flight training. However, such differential treatment arises from the requirements of aviation safety.

#### **Conclusion**

The legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. To the extent that it may also indirectly limit human rights, those limitations are essential, reasonable and proportionate in the interests of aviation safety.

**Civil Aviation Safety Authority**