

## Explanatory Statement

### Civil Aviation Safety Regulations 1998

#### Manual of Standards Part 173 Amendment Instrument 2015 (No. 1)

##### Legislation

Paragraph 9 (1) (c) of the *Civil Aviation Act 1988* (the *Act*) provides that CASA has the function of developing and promulgating appropriate, clear and concise aviation safety standards for the safety regulation of civil air operations in Australian territory and Australian aircraft.

Subsection 98 (1) of the Act provides that the Governor-General may make regulations for the Act and in the interests of the safety of air navigation.

Some of these regulations are contained in the *Civil Aviation Safety Regulations 1998* (**CASR 1998**). Part 173 of CASR 1998 deals with standards applicable to the design of instrument flight procedures, including the issue of procedure design certificates and procedure design authorisations. Under regulation 173.010 of CASR 1998, the standards for instrument flight procedure design are those set out in the Manual of Standards (MOS) Part 173 — Standards Applicable to the Provision of Instrument Flight Procedure Design (**MOS Part 173**). Regulation 173.085 of CASR 1998 requires a certified designer designing a terminal instrument flight procedure to ensure the procedure is designed in accordance with any applicable standards set out in ICAO Doc 8168 and any applicable standards set out in MOS Part 173.

##### Background

###### *Standards for design*

In 2009, the International Civil Aviation Organization (**ICAO**) published an advanced design standard for aircraft navigation performance, ICAO Doc 9905-AN/471, *Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual (ICAO Doc 9905)*. Other ICAO design standards are contained in ICAO Doc 8168-OPS/611, *Procedures for Air Navigation Services — Aircraft Operations* (Volumes I and II) (**ICAO Doc 8168**), also referred to as PANS-OPS. Contrary to initial expectations, the RNP AR criteria were not incorporated into Doc 8168 and, therefore, several minor amendments to MOS Part 173 are necessary to reflect the new design standard in ICAO Doc 9905.

###### *Flight validation*

Separately, the drafting of MOS Part 173 did not initially envisage the use of aircraft flight simulators in flight validation work. However, it is now established international practice to use flight simulators for validation of terminal instrument flight procedures. ICAO Doc 9906-AN/472 (**ICAO Doc 9906**), *The Quality Assurance Manual for Flight Procedure Design, Volume 5 — Validation of Instrument Flight Procedures*, sets out situations when a simulator should be used and includes mandatory use of simulator validation for RNP AR procedures. While MOS Part 173 does not specifically preclude the use of aircraft simulators, CASA has decided that an amendment to MOS 173 would clarify any ambiguity.

##### Instrument

Items 1, 2, 3, 4, 10, 11, 12, 13 and 14 of Schedule 1 of the *Manual of Standards Part 173 Amendment Instrument 2015 (No. 1)* (the **MOS Amendment**) update a range of provisions in Chapter 1, 2 and 8 of MOS Part 173 to reflect the introduction of a new procedure design

standard and RNP AR approach procedures contained in ICAO Doc 9905. Paragraph 1.1.1.2 has been substituted with a new provision that specifies that design standards for Instrument Flight Procedures, other than RNP AR APCH procedures, are contained in PANS-OPS and MOS Part 173. For RNP AR APCH procedures, the design standards are contained in PANS-OPS, MOS Part 173, and ICAO Doc 9905. The title in section 1.1.2 has also been amended to remove reference to PANS-OPS and has been replaced with a reference to ICAO documents, being a broader set of documents that includes ICAO Doc 9905. For paragraph 1.1.5.1, reference to ICAO Doc 9274-AN/904, *Collision Risk Manual* has been removed.

Item 5 substitutes a new paragraph 4.1.1.1 that expands the list of documents applicable to the type of Instrument Flight Procedure designed. The new list includes ICAO Doc 9905 and Volumes 1, 2, 3 and 5 of ICAO Doc 9906. Reference to the ICAO Collision Risk Manual has also been removed.

Item 6 substitutes a new paragraph 6.1.1.1 that updates the listed types of Terminal Instrument Flight Procedures and inserts a new subparagraph 6.1.1.1 (ea) specifying RNP AR approach procedures. Non-precision Approach (RNAV) has been replaced by Non-precision Approach (RNP APCH) and Precision Approach (RNAV) has been replaced by Precision Approach (GBAS).

Items 7, 8 and 9 amend Chapter 7 of MOS Part 173 by inserting a new paragraph 7.1.5.4 to permit the verification of a procedure design by aircraft flight simulator, and amends paragraph 7.1.24.3 to expand the scope of categories of aircraft to also include flight simulators. Paragraph 7.1.6.2 has also been substituted to clarify that only persons who are involved in conducting a validation procedure in an aircraft, as opposed to in a simulator, are to be carried in that aircraft.

### **Legislative Instruments Act**

Under subsections 98 (5AA) and (5AB) of the Act, an instrument issued under a regulation made under paragraph 98 (5A) (a) of the Act, is a legislative instrument for the *Legislative Instruments Act 2003* (the **LIA**) if it relates to the safe operation of aircraft and applies more broadly than to a particular aircraft or person. The MOS Amendment is of general application and is, therefore, a legislative instrument subject to registration, and tabling and disallowance in the Parliament, under sections 38 and 42 of the LIA.

### **Consultation**

Industry consultations occurred in February 2015. The MOS Amendment expands the scope of standards for instrument flight procedure design, by extending flight validation to an aircraft flight simulator, and including ICAO Doc 9905 as an additional design standard. The MOS Amendment also clarifies the command arrangements where the validation pilot may not hold an instrument rating on the validation aircraft or simulator. The MOS Amendment has a beneficial effect on industry. It is CASA's view that it is not necessary or appropriate to undertake any further consultation under section 17 of the LIA.

### **Office of Best Practice Regulation**

The Office of Best Practice Regulation assessed the proposed amendments as minor and that no further analysis in the form of a Regulation Impact Statement was required (OBPR ID: 18082).

### **Statement of Compatibility with Human Rights**

A Statement of Compatibility with Human Rights is at Attachment 1.

**Making and commencement**

The exemption has been made by the Director of Aviation Safety, on behalf of CASA, in accordance with subsection 73 (2) of the Act.

The instrument commences on 1 April 2015.

*[Manual of Standards Part 173 Amendment Instrument 2015 (No. 1)]*

**Statement of Compatibility with Human Rights**

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

**Manual of Standards Part 173 Amendment Instrument 2015 (No. 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**

The amendment to the Manual of Standards (MOS) Part 173 — Standards Applicable to the Provision of Instrument Flight Procedure Design permits flight validation in aircraft flight simulators and inserts a new design standard for navigation performance procedure design.

**Human rights implications**

This legislative instrument does not engage any of the applicable rights or freedoms.

**Conclusion**

This legislative instrument is compatible with human rights as it does not raise any human rights issues.

**Civil Aviation Safety Authority**