



Australian Government
Civil Aviation Safety Authority

ADVISORY CIRCULAR AC 173-01 v1.1

Instrument flight procedure design: Applications for procedure design certificate

Date November 2022
File ref D22/438903

Advisory circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory circulars should always be read in conjunction with the relevant regulations.

Purpose

This AC provides guidance and information to applicants for certification as Instrument Flight Procedure Designers under CASR Part 173.

For further information

For further information, contact CASA's Personnel Licensing, Aero and Air Nav Standards (telephone 131 757).

Status

This version of the AC is approved by the Branch Manager, Flight Standards.

Note: Changes made in the current version are annotated with change bars.

Version	Date	Details
v1.1	November 2022	Administrative review only.
(0)	May 2003	Initial AC.

Unless specified otherwise, all subregulations, regulations, Divisions, Subparts and Parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

Contents

1	Reference material	3
1.1	References	3
2	Background	4
3	Compliance with regulations	5
4	Information to be supplied	6
4.1	General	6
4.2	Financial capacity	6
4.3	Insurance	6
4.4	Operations manual	6
4.5	Type of procedure	6
4.6	Environment	6
4.7	Verification	7
4.8	Organisation	7
4.9	Personnel	7
4.10	Chief designer	7
4.11	Resources	7
4.12	Training and checking program	7
4.13	Safety Management System	8
4.14	Examples of product	8

1 Reference material

1.1 References

Legislation

Legislation is available on the Federal Register of Legislation website <https://www.legislation.gov.au/>

Document	Title
Part 173 of CASR	Instrument Flight Procedure Design
Part 173 MOS	Standards applicable to Instrument Flight Procedure Design

2 Background

- 2.1.1 The applicant for a certificate under CASR Part 173 is required to supply sufficient information to CASA to permit an application to be properly considered.
- 2.1.2 This AC sets out the information that will normally be expected to be provided in support of an application.

3 Compliance with regulations

3.1.1 The applications must adequately address all relevant requirements of CASR Part 173, and in particular should specifically detail the manner in which the applicant will comply with the following regulations:

- 173.045 (c) (i) - Types of Procedure to be designed
- 173.075, 173.250 - Operations Manual
- 173.090 - Verification
- 173.095 - Validation
- 173.110 - Maintenance
- 173.115 - Facilities
- 173.120 - Organisation
- 173.125 - Personnel
- 173.135 - Chief Designer
- 173.140 - Training and Checking Program
- 173.145 - Safety Management System
- 173.155 - Documents and records
- 173.160 - Document and record control system.

4 Information to be supplied

4.1 General

4.1.1 An application shall include:

- Applicant's name
- Corporate structure and executive personnel
- Place of Business
- Summary of relevant experience
- Details of organisational structure
- Experience and qualifications of key personnel.

4.2 Financial capacity

4.2.1 CASA may ask an applicant to provide evidence as to the applicant's financial standing and financial capacity.

4.3 Insurance

4.3.1 An applicant must supply details of the liability insurance cover that the applicant has or intends to obtain. An applicant who does not have adequate liability insurance provision may be considered by CASA as unlikely to be a viable commercial organisation, and therefore not an appropriate person to hold a certificate under CASR Part 173.

4.4 Operations manual

4.4.1 A complete operations manual is to be submitted for approval in accordance with the CASR Part 173 Manual of Standards (MOS).

4.5 Type of procedure

4.5.1 The application shall state the types of procedure (refer Part 173 MOS paragraph 6.1.1) that the designer proposes to design.

4.5.2 Approval to design procedures of a particular type should be supported by evidence of adequate relevant design experience.

4.6 Environment

4.6.1 The manner in which it is proposed to satisfy the requirements of the *Civil Aviation Act 1988* in regard to the design of procedures must be fully detailed.

4.6.2 It is acceptable to contract to another organisation for the provision of environmental analysis, but the applicant must provide full details of these arrangements and the procedures to be used by the contracted organisation.

4.7 Verification

- 4.7.1 Standard operating procedures, including checklists, forms and record keeping procedures should be appropriately detailed in the company operating manual.

4.8 Organisation

- 4.8.1 The operations manual must contain details of the designer's organisational structure. Details of the duties, responsibilities, and authority of each relevant position in the organisation must be provided. The organisational structure should identify that positions are permanent, part-time, contracted, or casual.

4.9 Personnel

- 4.9.1 The qualifications and experience of all design staff should be included. Where appropriate, or where personnel are not identified, job descriptions and/or selection criteria may be used to support the application.

4.10 Chief designer

- 4.10.1 An application will not be considered unless the applicant nominates a person as Chief Designer. The nominee must be able to satisfy the requirements for Chief Designer. See AC 173-02 - Approval of the Appointment of a Chief Designer for information/guidance on CASA's assessment of these requirements. An application will be accepted prior to the approval of the Chief Designer, but a certificate will not be issued until the Chief Designer has been approved.

4.11 Resources

- 4.11.1 An applicant must provide sufficient detail of accommodation, equipment and other resources that are available to the designer to demonstrate that adequate resources are available which will permit the designer to carry out design work.

4.12 Training and checking program

- 4.12.1 An applicant shall demonstrate that a suitable training and checking program is contained in the company operations manual, and that procedures are in place to effectively implement and monitor that program.
- 4.12.2 The program must ensure that staff proficiency is formally assessed at appropriate intervals, and that adequate training is provided to ensure knowledge and skills in current and new procedures. Procedures must provide for records to be kept of checks completed, the results achieved and any remedial action or additional training provided to address any deficiency.
- 4.12.3 In the case of Chief Designers, suitable procedures shall be provided to ensure that the Chief Designer is able to maintain adequate skills and knowledge.

4.13 Safety Management System

- 4.13.1 A safety management system is required as an integral part of the designer's operations. Guidance for the preparation of a safety management system is available on the CASA website at www.casa.gov.au under Aviation Safety Management resources.

4.14 Examples of product

- 4.14.1 An applicant shall provide for examination by CASA at least two complete designs of each type of procedure that the applicant intends to design. Examples shall include full documentation, including data, maps, computation sheets and finished charts in the format required for publication.
- 4.14.2 Samples of designs may include designs carried out in the normal course of the designer's business at locations outside Australia, provided those examples are representative of work by current staff, and are designed to PANS-OPS criteria.
- 4.14.3 Where examples of previously completed work are not available the applicant should consult with CASA before preparing sample designs, to ensure that the proposed sample designs will be acceptable.
- 4.14.4 CASA will assess product examples to determine that designs conform to ICAO PANS-OPS criteria and CASR Part 173 MOS and that the designs are accurate and complete.
- 4.14.5 In assessing submitted examples CASA may employ appropriate expertise from organisation outside CASA.
- 4.14.6 Where deficiencies are found in submitted examples, CASA may require further examples to be supplied in accordance with CASR Part 11.