

CAP 785 Volume I: Oversight of UK Approved Procedure Design Organisation.

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Foreword

The CAP 785 Volume I is based upon national legislation and non-legislative regulatory material, such as ICAO Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS). It is published in order to provide UK Approved Procedure Design Organisation (APDOs) with:

- a) guidance and clarification on the means of achieving compliance with UK regulatory requirements and ICAO SARPs and PANS; and,
- b) details of any additional national requirements, including appropriate supporting administrative procedures.

Two strands of UK aviation related legislation now exist. That made under the Air Navigation Order (which includes the Rules of the Air Regulations) and that made under The Basic Regulation (UK Reg (EU) No 2018/1139 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018) and its Implementing Rules.

Some EU aviation law was accompanied by acceptable means of compliance (AMC) and guidance material (GM) published by EASA. The CAA has adopted the version of AMC and GM that was in force on 31 December 2020 as its policy with regard to compliance with the relevant UK law from 1 January.

In publishing the CAP 785 Volume I, the CAA satisfies the obligations placed upon it by the Transport Act 2000¹, Chapter 1 Article 2 'CAA's general duty', which in paragraph 2(a) requires the CAA to exercise its functions under the Act in the manner it thinks best calculated, to further the interests of operators and owners of aircraft, owners and managers of aerodromes, persons travelling in aircraft and persons with rights in property carried in them. The only interests to be considered under subsection (2)(a) are interests regarding the range, availability, continuity, cost and quality of air traffic services.

Publication of the CAP 785 Volume I additionally satisfies the requirements set out by the Civil Aviation Authority (Chicago Convention) Directions 2007² to ensure that it acts consistently with the obligations placed on the UK under the Chicago Convention. The CAA is obliged to consider whether it is necessary to amend United Kingdom aviation legislation to ensure appropriate implementation of an ICAO provision.

Where (a) the CAA considers it inappropriate to transpose an ICAO provision into domestic legislation and (b) the CAA has discretionary power to enforce the

¹ <http://www.legislation.gov.uk/ukpga/2000/38/contents> or <http://www.legislation.gov.uk/ukpga/2000/38/data.pdf>

² [https://webarchive.nationalarchives.gov.uk/20100422174722/http://www.caa.co.uk/docs/286/CAA\(ChicagoConvention\)Directions2007\(asamended\).pdf](https://webarchive.nationalarchives.gov.uk/20100422174722/http://www.caa.co.uk/docs/286/CAA(ChicagoConvention)Directions2007(asamended).pdf)

requirements of such a provision through a certificate, licence, or other means of approval, the Civil Aviation Authority (Chicago Convention) Directions 2007 obliges the CAA to develop and publish such requirements as are necessary to implement the ICAO provision and shall ensure that it is able to verify adherence to those requirements.

The CAP 785 Volume I is subject to periodic revision to take account of changes to source regulatory material, feedback from industry, and recognised best practice. The CAP 785 Volume I provides applicable guidance and clarification relating to – and is to be read in conjunction with – the regulatory material referenced below. **Non-inclusion of source regulatory material within this CAP does not preclude the end user from either the need to be aware of, or the need to comply with, the requirements contained within the source regulatory materials unless otherwise exempted from those requirements.**

It is the policy of the UK government that, unless a Difference from an ICAO Standard has been established, compliance with the relevant international (i.e. ICAO and applicable equivalents such as the International Telecommunications Union) provisions is required to the extent mandated in law. Moreover, unless an alternative 'Means of Compliance' (AltMoC) (related to a CAA 'Acceptable Means of Compliance' (AMC)) has been approved for use, then compliance with the relevant AMC is required to the extent mandated in the law as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018. Finally, compliance with other national requirements that are not addressed by international requirements or retained EU regulations is also required.

The words 'must', 'shall' and 'will' indicate that compliance with applicable regulatory requirements is necessary. In the case of AMC the word 'should' indicates that compliance is required, unless acting in compliance with an approved AltMoC

Regulatory References:

The CAP 785 Volume I is published to assist IFP Design Service Providers' understanding of, and compliance with the requirements laid down in:

ICAO:

Annex 11 to the Convention of International Civil Aviation – Air Traffic Services.

- Annex 19 to the Convention of International Civil Aviation – Safety Management – Second Edition, July 2016.
- ICAO Doc 8168 Procedures for Air Navigation Services – Aircraft Operations – Volume I "Flight Procedures" Sixth Edition, 2018.
- ICAO Doc 8168 Procedures for Air Navigation Services – Aircraft Operations – Volume II "Construction of Visual and Instrument Flight Procedures" – Sixth Edition, 2014.

- ICAO Doc 9368 Instrument Flight Procedures Construction Manual.
- ICAO Doc 9906 Quality Assurance Manual for Flight Procedure Design – Volume I – Flight Procedure Design, Quality Assurance System – 1st Edition, 2009. ICAO Doc 9906 Quality Assurance Manual for Flight Procedure Design – Volume II– Flight Procedure Designer Training – 1st Edition, 2009.
- ICAO Doc 9906 Quality Assurance Manual for Flight Procedure Design – Volume III– Flight Procedure Design, Software Validation – 1st Edition, 2010.
- ICAO Doc 9906 Quality Assurance Manual for Flight Procedure Design – Volume IV– Validation of Instrument Flight Procedures – 1st Edition, 2012.
- ICAO Doc 10066 Manual on the Development of a Regulatory Framework for Instrument Flight Procedure Design Service.

UK:

- ^{DRAFT} UK Reg (EU) No 2017/373 Laying down the common requirements for providers of air traffic management/air navigation services and other air traffic management network functions.
- UK Reg (EU) No 73/2010 updated by the UK Reg (EU) 2014/1029 and amended by the UK Statutory Instrument 2019 No.459.
- Official Record Series 5 – CAA Scheme of Charges (Instrument Flight Procedures).

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Introduction

The UK Civil Aviation Authority (CAA) is the competent authority for the United Kingdom responsible for the safety and the approval of Instrument Flight Procedures (IFP).

The Air Navigation Order 2016 as amended empowers the CAA to approve organisations wishing to submit IFPs for approval and IFPs which are to be notified in the UK Aeronautical Information Publication.

Standards specified in this publication shall be read in conjunction with ICAO Standards and Recommended Practices (SARPs) and any nationally filed differences. Where there is a difference between this document and standards defined by ICAO, the standard in this document shall prevail.

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IFPs are regulated in the UK through the oversight of Approved Procedure Design Organisations (APDOs) and the approval of IFPs before their implementation in the UK Aeronautical Information Publication (AIP).

The specific requirements for the oversight of APDOs are described in this volume while the technical requirements for the approval of IFPs and the delivery of safeguarding services are published in CAP 785 Volume II “Implementation and safeguarding of IFPs”.

Definitions

- **Aeronautical Information Publication (AIP)** – A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.
- **Approved IFP Designer (APD)** – An Instrument Flight Procedure Designer who has been approved (with or without restricted privileges) by the CAA to design IFPs within an Approved Procedure Design Organisation. (CAA)
- **Approved Procedure Design Organisation (APDO)** – An IFP Design Service Provider approved in the UK for the provision of IFP Design Service.
- **Independent Approved IFP Designer (IAPD)** – An APD who has not been involved in the design of the IFP, or acted as project manager on the design project, which is being validated within the same Approved Procedure Design Organisation. (CAA)
- **Instrument Flight Procedure Quality Management System (IFP QMS)** - A systematic approach to managing the delivery of IFP design, including the necessary organisational structures, accountabilities, procedures, and policies.
- **Instrument Flight Procedure Design Service (IFP DS)** - A service established for the design, documentation, validation, continuous maintenance, and periodic review of instrument procedures necessary for the safety, regulatory and efficiency of air navigation.
- **Instrument Flight Procedure Design Service Provider (IFP DSP)** – An IFP DSP is a body that provides an IFP Design Service.
- **Instrument Flight Procedure (IFP)** – a standard instrument departure (SID), a standard instrument arrival (STAR), an approach transition, an initial approach procedure and an instrument approach procedure (IAP)
 - **Standard Instrument Departure (SID)** – A designated IFR departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences.
 - **Standard Instrument Arrival (STAR)** – A designated Instrument Flight Rules (IFR) arrival route linking a significant point, normally on an ATS route, with a point from which a published IAP can be commenced. (ICAO – Annex 11 ‘Air Traffic Services’)

- **Omni-Directional Departure** – A departure which provides a quantitative level of safety to aircraft departing IFR in those aerodromes in the UK which accommodate such operations which do not have notified SIDs in the UK AIP.
- **Approach Transition** – A PBN flight procedure that links the Standard Instrument Arrival (STAR) to the Initial Approach Fix (IAF) or Intermediate Fix (IF) of an Instrument Approach Procedure (IAP).
- **Initial Approach Procedure** – A stand-alone conventional initial approach procedure following the completion of an existing STAR terminating at the intermediate fix (IF) or final approach fix (FAF). This can typically be used to facilitate RCF procedures.
- **Instrument Approach Procedures (IAP)** – series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, a missed approach to a position at which holding and/or an altitude which ensures en-route obstacle clearance criteria is met
- **APV/Baro-VNAV** – An IAP which utilizes lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations. (ICAO PANS-OPS DOC 8168)
- **PBN T- or Y- Bar Procedure** – A PBN non-precision approach or APV incorporating a T- or Y- bar arrangement. It is based on a runway aligned final segment preceded by an intermediate segment and up to three initial segments arranged either side of, and along, the final approach track to form a T or Y. The lateral initial segments are based on course differences of 70° to 90° from the intermediate segment track.
- **Holding** – a predetermined manoeuvre which keeps an aircraft within a specified volume of airspace. (CAP 393)
- **ATCSMAC** – The Surveillance Minimum Altitude is defined to ensure the minimum safe levels in the vicinity of a defined area around an aerodrome in order to relieve controllers of the responsibility for determining the heights where the sequencing and separation of IFR flights where primary or secondary surveillance radar is taking place.