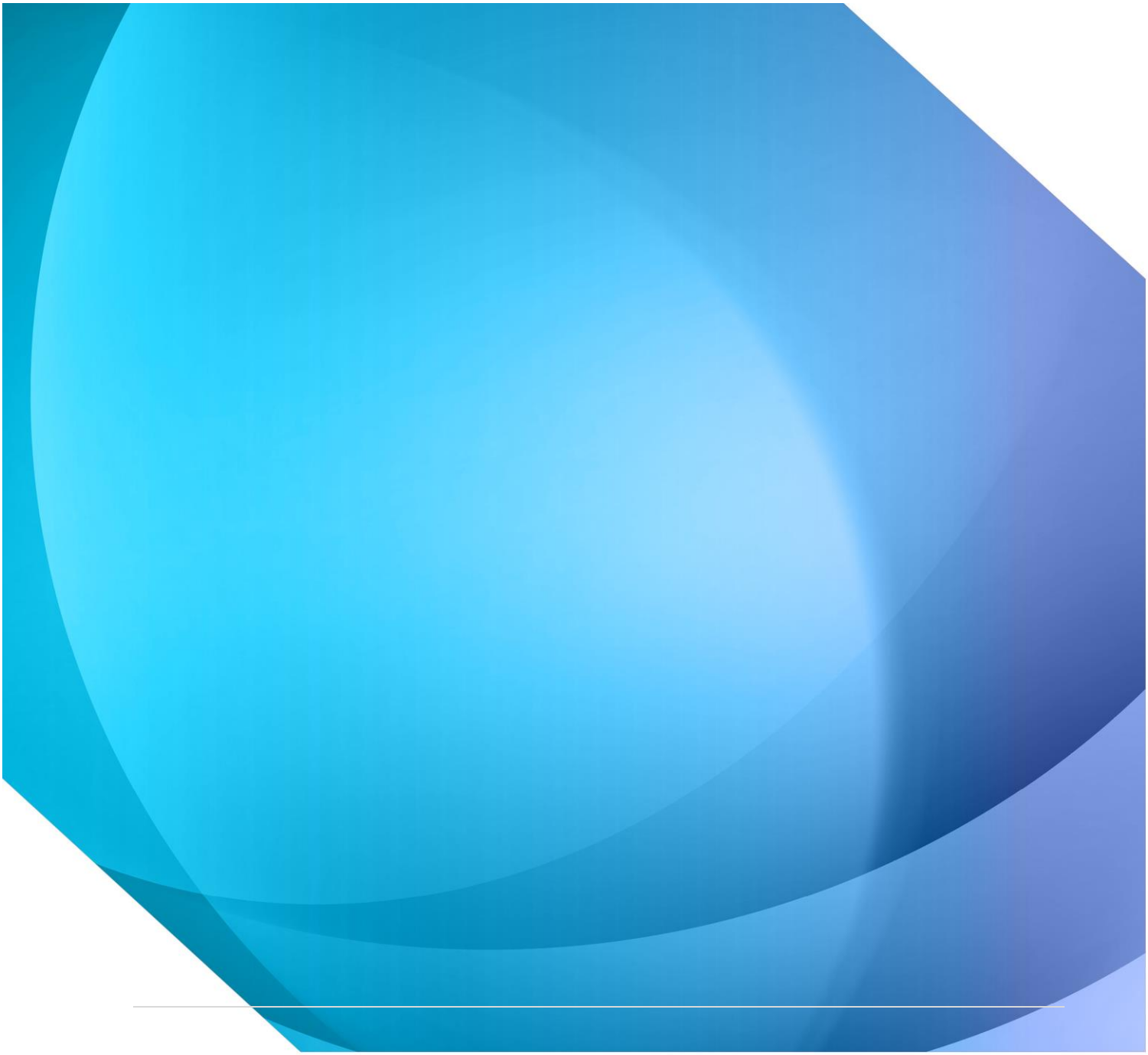
Safety and Airspace Regulation Group

CAP 785A: Oversight of UK Approved Procedure Design Organisations.



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Revision History and effective page

Edition 1 Published in 2010

The first edition of CAP 785 was published in 2010 after the outsourcing of the IFP design service to the industry. This document explained the process to become an Approved Procedure Design Organisation for the delivery of IFP design and provided clarification on the CAA process to approve IFP designs before their implementation in the UK AIP.

Edition 2 version 1 Published in Mai 2022

CAP 785 was fundamentally revised between 2020-2022 to reflects the changes introduced by the implementation of the UK Reg (EU) 2017/373 for service providers and to describe the CAA regulatory functions. Therefore, the edition 2 is split in two volumes, CAP 785A “Oversight of Approved Procedure design Organisation” and CAP 785B “Implementation and Safeguarding of IFPs in the UK”.

Edition 2 Version 2 Published in August 2022

CAP 785A version 2 addresses linguistic inconsistencies and ensures uniformity with CAP 785B “Implementation and Safeguarding of IFPs in the UK” references.

Edition 2 version 3 Published in September 2022

CAP 785B version 3 further addresses administrative inconsistencies across the document.

Content

Foreword

The CAP 785A 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 785A, the CAA satisfies the obligations placed upon it by the Transport Act 2000[1], 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 785A additionally satisfies the requirements set out by the Civil Aviation Authority (Chicago Convention) Directions 2007[2] 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 the 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

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 785A is subject to periodic revision to take account of changes to source regulatory material, feedback from industry, and recognised best practices. The CAP 785A 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 785A 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*:*

- 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).

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 the standards defined by ICAO, the standard in this document shall prevail.

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 785B “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 on 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 from the responsibility for determining the heights where the sequencing and separation of IFR flights where primary or secondary surveillance radar is taking place.

- **Authorised Source** – Person ultimately accountable for aeronautical information published in the UK AIP. (CAP 1054)
- **Data originator** – Person or persons authorised to originate aeronautical information and data on behalf of the 'Authorised Source'. (CAP 1054)
- **Sponsor** – An aerodrome operator or representative from an aerodrome acting on the operator's behalf, or an ANSP, who proposes a new IFP design, changes to, or withdrawal of an existing IFP.

Chapter 1
IFP Design Services Provider (IFP DSP) Approval

Air Navigation Order 216 article 187:

(4) An applicant for approval of an instrument flight procedure must supply such evidence and reports as the CAA may require.

(6) The CAA must grant an approval to submit reports supporting an application for approval of an instrument flight procedure if it is satisfied that the applicant is competent having regard to the applicant's company, staffing, equipment, knowledge, experience, competence, skill and other arrangements to design an instrument flight procedure that is safe for use by aircraft.

(7) The applicant for an approval under paragraph (6) must supply such evidence and undergo such examinations and tests and undertake such courses of training as the CAA may require.

INTRODUCTION

1.1 The provision of Instrument Flight Procedure Design services is regulated by the UK CAA and IFP Service providers wishing to provide these services in the UK must be approved by the UK CAA. These companies shall be a legal entity and once approved, they will be named "Approved Procedure Design Organisation" and their certificate is non-transferable.

1.2 IFP designers may be named in more than one organisation's certificate provided they meet the requirements for training, education, experience, are competent for the role they are employed for, are approved by the UK CAA to operate under the relevant certificate and demonstrate their ability to comply with the different requirements of their APDOs.

1.3 In assessing an application, we may conclude that restrictions are to be applied to an organisation's certificate or that approval is not granted. In such instance, the CAA will notify the applicant together with a documented decision.

1.4 Once approved, APDOs will have a list of Approved IFP designers on the company's approval certificate and any addition or removal of IFP designers and/or amendment to individual restrictions (if applicable) shall follow the process set out in Chapter 2 of this document.

1.5 When an Approved IFP Designer(s) named in the organisation's certificate ceases to be employed by an APDO, the organisation shall, without delay, inform the CAA via email at ifp.policy@caa.co.uk. Upon receipt, the CAA will amend the organisation's certificate and issue a new one. It is also required that the APDO send their old certificate to the CAA.

1.6 The CAA will issue an approval certificate to successful service providers who will be subject to ongoing oversight as defined in Chapter 3.

1.7 The list of current Approved IFP Design Organisations is available on the CAA website[3].

1.8 The CAA considers that APDO shall be resourced with a minimum of two Approved IFP Designers to ensure compliance with the quality assurance requirements (independent checks). If an organisation's resource falls below two approved IFP designers, the certificate will be provisionally suspended and, therefore the CAA will not accept any IFP design submissions until the suspension is lifted. In that case, the process set out in CAP 1074[4] applies.

IFP QUALITY MANAGEMENT SYSTEM REQUIREMENTS

1.9 Applicants shall demonstrate they have established and continuously maintained a suitable IFP Quality Management System (QMS), described in a Procedure Design Manual (PDM) which is proportionate to the size of the organisation and the complexity of the IFP design activities. Guidance is contained in the Quality Assurance Manual for Flight Procedure Design - ICAO Doc 9906 Volume I[5]. If organisations are also ISO 9001 certified, they should provide the organisation's ISO certificate as part of the application.

1.10 IFP Quality Management System shall include the following as a minimum:

a. Responsibility and accountability within the organisation are clearly defined. The structure of the organisation will influence the number of resources available to fulfil the roles described below. When a person is assigned with multi-roles, the CAA considers that transparency and independency are key factors for the delivery of an efficient IFP service:

- **Accountable Manager** – The Accountable Manager is accountable to

[3] Approved procedure design companies | UK Civil Aviation Authority (caa.co.uk)

[4] CAP1074 SARG Enforcement Guidance May2015.pdf (caa.co.uk)

[5] Document accessible on the ICAO library website.

the CAA for the safety and quality of the designs submitted. They are responsible for ensuring that the staff is aware of roles and responsibilities within the company as well as their adherence to the QMS. The Accountable Manager may be one of the approved IFP designers within the organisation.

- **Quality Manager** – The Quality Manager is responsible for the management and ongoing maintenance of the company's IFP QMS.
- **Lead Designer** – The organisation should nominate a person who is an approved IFP designer and the first point of contact for the CAA regarding submitted designs, technical and policy-related matters.
- **Approved IFP designer** – IFP designers holding approved status; a minimum of 2 Approved IFP Designers is required for each IFP DSP.
- **IFP designer** – IFP designer who does not hold an approved status, can design an IFP for use in the UK when receiving On-the-job training (OJT) from an Approved IFP designer acting as a mentor. In this circumstance, the design must be validated by another Approved IFP designer in accordance with the procedures contained within the company's IFP QMS. All IFP designers involved and the capacities in which they acted must be documented, i.e. designer (non-approved and approved), and Independent Approved IFP designer.

b. A detailed process for the management and the processing of the required aeronautical data set to facilitate IFP design activities such as:

- A process for both internal and external transfer of aeronautical data in accordance with UK Reg (EU) 2014/1029 and CAP 1054[6] Chapter 7 'ADQIR – Aeronautical Information Data Process and Data Specifications'.
- A record control and storage system of input data including items e.g.:
  - Aerodrome Survey.
  - AD 2.10 Data (when applicable).
  - Other obstacles (e.g. DVOF/spot heights/etc.).
  - Terrain data.

[6] https://publicapps.caa.co.uk/docs/CAP1054/AeronauticalInformationManagement/July2015.pdf

- Airspace Data.
- Charts/Maps.
- NATS AIS conventional true track spreadsheet.

- A process for management/processing/transfer/import of required data into the design environment.
- The data handling process used by the IFP designer including all IFP processes and procedures to provide demonstrable proof of data quality, integrity and accuracy. A full reference to any maps or charts is required. Copies of paper maps used will be required unless electronic versions are available and provided.
- A process for the verification of data sets used within the IFP design activities, for example:
  - Completeness of data sets.
  - Validity of data.
  - The latest available data sets are used.

c. The IFP QMS should include key performance indicators to help the service provider measuring the performance towards goals and objectives. These indicators should support the organisation to identify the causes of substandard performance, determine the implication and eliminate or mitigate such causes. Guidance is provided in ICAO DOC 9906 Volume I, Appendix A.

d. A system of internal audits, compliance monitoring and system change management process. This process shall include a feedback system of findings to ensure the effective implementation of corrective actions and opportunities for continuous improvement.

Note: changes to the IFP QMS shall be notified to the CAA before implementation with a justification for the changes.

e. A set of processes, procedures and work instructions covering steps from the collection of sponsor requirements to the publication of the procedure in the AIP for IFP Design activities.

f. A training programme and associated training plans to ensure that all IFP designers are suitably trained and competent and current to exercise the privileges as granted by their approval:

- Clearly defined and documented requirements for IFP design competencies within the organisation.
- A structured training programme for the development of IFP designs that should be competency-based and in line with the process as described in ICAO Doc 9906 Vol 2 "Flight Procedure Designer Training" as applicable.
- A process in identifying training requirements for individuals within the organisation.
- The training programme shall demonstrate how individuals are assessed to be competent for the development of IFP design within the organisation and documented as such.
- The training programme must ensure that Approved IFP designers within their respective company have acquired and maintained their competencies through OJT, recurrent and refresher training.
- A record of all training-related activities, and individuals' training and competencies records.
- Evidence of completed training and subsequent IFP design activities for conventional IFP designs, PBN IFP designs and helicopter Point in Space (PinS) designs (as applicable).
- Where a designer's ab-initio training did not start within the same company i.e. if a designer has moved from one company to another; a process to assess and establish the designer's competency. This process should also include a documented record demonstrating the designer's relevant professional experience and associated evidence of their design experience.

g. A formal means of internal communication that ensures all IFP designers are fully aware of the IFP QMS that allows critical information to be conveyed and that makes it possible to explain why particular actions are taken and why procedures are introduced or changed.

h. Where automation is employed as part of the design process, clear documentation relating to the design tools is required. This will need to include the following:

- The user requirements for the design tools.
- Selection and procurement criteria of the design tools.

- Evidence of installation and validation of the design tool.
- Control procedures for validation of design software for both the current (active) version and any versions that may be undergoing validation activities in accordance with ICAO Doc 9906 Vol 3 'Flight Procedure Design Software Validation'

i. Document control ensuring all documents are suitably managed; the following factors shall be addressed:

- Document control, management and storage of all relevant reference material
- Document control, management and storage of all IFP-related documents.
- Naming convention to be applied to documentation within the organisation.
- Record and version control system of design drawings, worksheets, input and output parameters, reports, draft charts, coding tables, FAS Data blocks, and related products from IFP Design activities.

j. Processes to carry out ground validation (compliance checking) of IFP Design activities by an Independent Approved IFP Designer.

APDO APPLICATION AND APPROVAL PROCESS

1.11 The CAA has developed a comprehensive and proportionate four-step process to support IFP service providers with their application. This process is summarised in the table below and described in detail on pages 13 to 15. Applicants should contact Airspace Regulation to discuss the timeline by which their application can be assessed.

Steps	Purpose	Outcome
Step 1 Submission	IFP DSPs submit their application to the CAA with the aim at gaining an approval for the provision of Instrument Flight Procedure design services in the UK.	The CAA ensures that the application is effectively received and meets the requirements set up in this document.
Step 2 Desktop Audit/Document Review	The CAA uses an internal methodology to assess the documentation provided at step 1 to identify if the IFP process is clearly developed and documented within an IFP Quality Management System. It is also the opportunity to assess the training manual.	The CAA is confident that the applicant has implemented a robust and documented process for the delivery of IFP service and that training is managed in a comprehensive way for ensuring that the IFP designers are competent for the role they are employed for.
Step 3 Initial Audit	The CAA performs an audit "in-house" or remotely via video conference, assess the robustness of the process and how it is used by individuals. This represents the practical part of the assessment	The CAA is confident that individuals are knowledgeable and skilled to use their internal IFP process for the delivery of IFP services.
Step 4 Decision	The CAA analyses the outcomes of the previous stages.	The CAA makes an informed decision to approve or reject the application and informs the IFP DSP.

Table 1 - IFP DSP application process

1.12 Step 1: Application Submission

a. Applicants should note that a fee is applicable and payable to the CAA. Organisations based outside the United Kingdom should note that an additional charge will be payable where travel by CAA staff outside of the UK for regulatory functions is required. Details of the approval fees can

be found in the CAA Scheme of Charges (Instrument Flight Procedures[7] and the CAA overseas Travel Time Rate).

b. Submissions shall be in electronic format and sent to ifp.policy@caa.co.uk.

c. If an organisation wishes to use a file transfer service (e.g. SharePoint online, huddle, dropbox, etc…), they should first submit the relevant forms by email and inform the CAA who will then contact the organisation to ascertain whether this can be accommodated.

d. The submission is acknowledged within 10 working days and the CAA will then contact the applicant to discuss and agree an indicative timeline for a decision. The CAA requests that the payment shall be completed before proceeding to the desktop audit/document review conducted in Step 2.

e. All submissions including the supporting documentation and relevant evidence shall be in English and include the following as a minimum:

- DAP 1915 "Application Form for Company Approval" form including details of the company and all individuals wishing to be included in the approval certificate.
- DAP 1914 "Application Form for Individual Approval" form including the necessary evidence as detailed in Chapter 2 of this document.
- Contents of the organisation's IFP QMS.
- An exposition of the organisation containing references to the IFP QMS detailing how the requirements are met.

f. The CAA at this stage assesses whether the submission contains all relevant information and decides whether stage 2 of the process can commence or if additional information is required.

1.13 Step 2: Desktop Audit/Document Review

a. At this stage, the CAA evaluate the organisation's IFP QMS with the objective to ascertain whether the system and processes established are sufficient for the delivery of qualitative IFP design activities.

b. The CAA also reviews the information provided to determine if the organisation has sufficiently demonstrated that the designers are

[7] http://publicapps.caa.co.uk/

suitably trained and competent in IFP design, particularly within the organisation's processes/systems and determine whether the organisation is ready to proceed to step 3 - Initial Audit. If required, the CAA contact the applicant to obtain further information.

1.14 **Step 3: Initial Audit**

a. The CAA conducts an initial audit to analyse how individuals operate the organisation's IFP QMS. Further, the audit is also the opportunity to interview the individuals applying for an approval.

b. During this audit, the CAA look for evidence that demonstrate the organisation's compliance to the IFP QMS.

c. At this stage if the CAA believes that corrective actions should be developed to facilitate a positive outcome, the CAA will send an audit report to the organisation within 15 working days following the audit. Upon receipt of the report, the organisation produces an action plan to address the issues raised and submits the report within an agreed timeline. This action plan and supporting evidence will then be assessed to determine whether the issues have been satisfactorily addressed to inform a decision at Step 4.

1.15 **Step 4: Decision**

a. If the CAA is satisfied that the service provider meets the approval requirements, an approval is granted, and a certificate is issued shortly thereafter. The service provider becomes an "Approved Procedure Design Organisation".

b. If the CAA believes that the service provider does not meet the requirements defined in this CAP for the delivery of IFP design service in the UK, the application is rejected with a decision documented in a report.

c. Where necessary an approval may be issued with a restriction either placed on a designer's privileges and/or on the organisation. These restrictions may impact the IFP design activities permitted, and the service provision offered by the organisation.

CERTIFICATE VALIDITY

1.16 The certificate issued remains valid unless:

a. The organisation fails to demonstrate compliance with the applicable requirements and/or their IFP MS (this is subject to ongoing oversight).

b. The organisation no longer meets the eligibility requirements for this approval and is placed "On Notice".

c. The certificate has been surrendered or revoked.

1.17 Upon surrender or revocation, the certificate shall be returned to the CAA. Any reapplication for approval will require a full submission plus the associated charge.

1.18 A certificate can be time limited at the initial approval and the decision will be documented and justified in a letter attached to the certificate.

CERTIFICATE REVOCATION

1.19 APDOs are required to comply with the terms of this publication, any restrictions on the approval certificate as applicable, and their IFP QMS. If an approved organisation fails to meet those standards, the organisation can be identified as "On Notice"[8].

1.20 In case of the limitation or suspension of the certificate, the CAA act in a consistent fashion that makes it clear to the Accountable Manager what action is required to restore the previous status such as a corrective action plan detailing how the issues are addressed.

1.21 The certificate revocation is the final action taken by the CAA if the APDO is unable to address all the issues raised.

[8] CAP 1074 "Safety and Airspace Regulation – Enforcement Guidance"

Chapter 2
Approval of IFP designers

INTRODUCTION

2.1 This chapter defines the approval process for service providers making an initial application or APDOs applying to add or amend IFP designers to their certificate.

2.2 IFP designers named on an APDO's certificate are known as Approved IFP designers and may only exercise their privileges within the organisation approval on which they are named as mentioned in Chapter 1.

2.3 Where applicants cannot provide evidence to support the competency for all IFP types, restricted design privileges may be granted at the discretion of the CAA.

2.4 The IFP design's approval once issued is non-transferable and they do not retain their design privileges upon leaving a company. This is justified by the fact that an individual application is assessed against the IFP designer competencies, experience, attitude, and training but also against the company's IFP QMS.

2.5 If a designer moves to a new company, the CAA can request the applicant to provide a letter of reference that will help the CAA identify all IFP activities (designs, trainings, OJT) the applicant was involved in.

IFP DESIGNERS EVIDENCE

2.6 In determining whether an IFP designer can be included or added to a certificate, the CAA considers and assesses the following:

a. Evidence demonstrating designers' IFP Design experience along with all relevant aviation experience.

b. Attendance and successful completion of an appropriate training course based upon ICAO PANS-OPS Doc 8168.

c. A comprehensive record of all training activities and competency assessments for all IFP designers[9].

d. A record of the designers' competency and currency for each procedure

[9] ICAO Doc 9906 Volume II Chapter 2

type[10];

e. Resume detailing the aviation experience of the individual.

f. A documented list of completed designs including the following detail as a minimum:

- Name of the IFP designer.
- IFP type and date completed.
- Involvement in IFP Design, i.e. Designer or Independent Checker/validator.

g. For the design of PBN IFPs, evidence of completing ARINC 424 training is required.

h. For the design of Helicopter PinS procedures, evidence of completing a PinS training course is required and OJT should be demonstrated.

i. If the CAA believes that further design evidence is requested to inform our regulatory decision, the applicant will be contacted.

j. Evidence supporting the designer's relevant Skills, Knowledge and Attitude (SKAs):

- IFP designers need to demonstrate an ability to work as part of a team (attitude) in accordance with the SKAs documented in ICAO Doc 9906 Vol 2 "Flight Procedure Designer Training".

k. For individuals with no operational aviation experience, a minimum of 3 years IFP Design OJT shall be demonstrated. For individuals with aviation experience such as commercial pilot or licenced air traffic controller, the CAA believes that one year of OJT may be acceptable. Guidance on the training programme is published in ICAO DOC 9906 Volume II Attachment A to Chapter 3. The CAA considers that the OJT, while not being a specific training course, is an essential phase to develop, reinforce and support the achievement of competency standards[11]. Applications are assessed on a case-by-case basis and will be based on evidence provided by each IFP designer.

[10] ICAO Doc 9906 Volume II Chapter 2

[11] ICAO Quality Assurance Manual Doc 9906 Volume II

DESIGN PRIVILEGES

2.7 When deemed necessary, restricted design privileges may be granted and the information relating to the restrictions will be detailed on the APDO certificate.

2.8 If an APDO wishes to amend an individual restriction, a new application should be submitted for this individual following the process described below and the supporting evidence as detailed in 2.6 shall be included in the application.

IFP DESIGNER APPLICATION AND APPROVAL PROCESS

The CAA has developed a comprehensive four-step process to support individuals with their application. This process aligned with the organisation's application process is summarised in table 2.

Stage	Purpose	Outcome
Step 1 Submission	Organisations submit an application for their IFP designers to the CAA with the aim at gaining an approval for the provision of Instrument Flight Procedure design services in the UK.	The CAA ensures that the application is effectively received and meets the requirements set up in this document.
Step 2 Desktop Audit/Document Review	The CAA uses our internal methodology to assess the documentation provided at stage 1 to identify if the IFP designer meets the requirement to design IFP in the UK.	The CAA is confident that the applicant has robust knowledge and experience for the provision of IFP service.
Step 3 Initial Audit	The CAA performs an audit "in house" or remotely via video conference	The CAA is confident that individuals are knowledgeable and skilled to use the internal IFP process for the delivery of IFP services.
Step 4 Decision	The CAA analyses the outcomes of the previous stages.	The CAA makes an informative decision to approve or reject the application.

Table 2 - IFP designer application process

2.9 **Step 1: Application Submission**

a. Applicants should note that a fee is applicable and payable to the CAA. Service providers based outside the United Kingdom should note that an additional charge will be payable. Details of the approval fees can be found in the CAA Scheme of Charges (Instrument Flight Procedures) and the CAA overseas Travel Time Rate.

b. Submissions shall be in electronic format and sent to ifp.policy@caa.co.uk.

c. If an organisation wishes to use a file transfer service (e.g. SharePoint online, huddle, dropbox, etc…), they should first submit the relevant forms by email and inform the CAA who will then contact the organisation to ascertain whether this can be accommodated.

d. The submission is acknowledged within 10 working days. The CAA assesses whether the submission contains all relevant information and decides whether step 2 of the application process can commence or if additional information is required.

e. All submissions including supporting documentation and evidence shall be in English and shall include the following as a minimum:

- DAP 1914 "Application Form for Individual Approval" form including the necessary evidence as detailed in 2.6a.
- A letter from the accountable manager recommending the IFP designer for approval demonstrating how the applicant meets the CAA requirements.

2.10 **Step 2: Desktop Audit/Document Review**

a. The objective of this desktop audit/document review is to ascertain whether the CAA requirements are met. Information provided is reviewed to determine if the organisation has sufficiently demonstrated that the IFP designers are suitably trained and competent in IFP design within the company's IFP QMS.

b. The CAA determines if an audit/interview is required and if required, the application will proceed to step 3: Audit/interview. If the CAA considers, based on the information submitted that an Audit/Interview is not required, the application proceeds to step 4: Approval Decision.

2.11 **Step 3: Audit/interview**

a. An Audit/interview is conducted with the designer and accountable manager, or Lead Designer, to allow the review of the IFP designer's competency, experience and ability to operate within the IFP DSP's QMS.

b. After completion of the audit/interview, a report is produced, and the application proceeds to Stage 4: Approval Decision.

2.12 **Step 4: Decision**

a. If the CAA is satisfied that the IFP designer meets the approval requirements, an approval is granted and APDO certificate is issued shortly thereafter.

b. Where necessary the CAA may issue an IFP designer approval with restrictions detailed on the IFP DSP certificate.

c. Where approval is not granted, the CAA notifies the accountable manager within the company providing a documented and informed decision.

Chapter 3
Approved Procedure Design Organisation oversight

INTRODUCTION

3.1 Once approved, IFP service providers are subject to ongoing regulatory oversight by the UK CAA. This function is based on the CAA Performance-Based Oversight principles which aim to reduce the overall safety risk in the aviation system through the provision of safe and qualitative IFP design services.

3.2 The CAA oversight of IFP design activities takes into consideration the specific nature and the complexity of IFP design services. Data from IFP design submissions are captured as part of our regulatory activities (for example Airspace Change Process, Periodic Reviews or IFP safeguarding) and other intelligence such as safety-related data and information are gathered from across the CAA (particularly from the Aerodrome & ATM sections).

3.3 Each APDO's performance is evaluated based on different criteria such as, but not limited to, the application of IFP design criteria, the provision of supporting evidence when a difference from the criteria is proposed, compliance with their own IFP QMS, data recording, provision of training, application of the SKA (Skills, Knowledge & Attitude). These data create a safety and performance picture that will inform the CAA decision to identify all appropriate oversight activities such as ad-hoc audits, or regulatory actions.

AUDITS

3.4 APDOs' periodic audits are carried out at least once every **24 months.**

3.5 If a time-limited approval was granted following the initial application, the CAA will contact the APDO 6 months prior to the expiry date of the certificate and agree an audit timeline.

3.6 At the end of the audit, the lead auditor will provide a summary of the audit in the closing meeting. Findings and observations will be documented in a report and returned to the organisation usually within 10 working days of the end of the audit.

3.7 The audit report will detail the following:

a. Level 1 Finding.

- Where the CAA determines that the level of compliance and/or safety performance of a company or individual has fallen to the extent that there is a potential or significant risk to flight safety, a Level 1 finding will be made. The CAA will act in accordance with the relevant regulation as described in CAP 1074[12]. If a suspension is decided, a corrective action plan will be required before the suspension is lifted and before the activity giving rise to the finding is recommenced.
- A Level 1 finding shall be issued by the CAA when any non-compliance with a regulation or requirement, or the company's own arrangements processes, or procedures is observed which creates a significant safety risk or hazard for IFPs. In that case, the CAA shall take immediate action or enforce the cessation or related activities such as to eliminate the hazard until adequate corrective actions can be implemented.

b. Level 2 Finding.

- A Level 2 finding is issued by the CAA when any non-compliance with a regulation or requirement, or the company's own arrangements processes, or procedures is observed. In that case, the CAA should agree an appropriate timescale for implementing corrective actions considering the potential safety impact of the non-compliance. Where corrective actions are not accepted the finding may be raised to a Level 1 finding.

c. Observations.

- An observation may be raised where there is potential for future non-compliance if no action is taken, or where the CAA wish to indicate an opportunity for safety improvement or something that is not good practice. Corrective action is not obligatory for an observation, but acknowledgement and the identification of any intended action is expected. If an observation is rejected, a rationale justifying such rejection is required.

3.8 Upon receipt of the audit report, the APDO shall identify the root cause of the non-compliance, define an action plan in order to explain how findings and observations will be addressed, and submit the action plan to the CAA within

[12] CAP 1074

an agreed timeline. It is required that the action plan will be supported by all necessary evidence to inform a regulatory decision. If findings and observations have not satisfactorily been addressed, the CAA determines the correct action as per the guidance provided in CAP 1074.

3.9 An APDO is required to comply with the terms of CAP 785A and CAP 785B, to any restrictions on the approval certificate as applicable, and their IFP QMS. If an organisation fails to meet those standards leading to a deterioration of services, the CAA identifies the company as "On Notice"[13] as defined in CAP 1074 "Safety and Airspace Regulation Enforcement Guidance" and takes all appropriate measures to ensure the provision of service does not create a risk for the aviation industry.

RECORDS AND REPORTS

3.10 All regulatory documents (reports, letters, decisions) are standardised for efficiency, traceability, transparency and recorded on the CAA internal System in compliance with the CAA ISO 9001:2015 certification.

3.11 Our regulatory performance-based oversight activities are standardised by the use of Q-Pulse for planning, scheduling, management and reporting. This system maintains all oversight data in a single application and remove the need for other systems.

[13] CAP 1074