
	AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen	ASAM. No: 017 Issue 5 Date:02.11.20 Page 1 of 29
Title: Guidance Material on Instrument Flight Procedures		

1. Introduction

- 1.1. With the amendment 50 of ICAO Annex 11 in November 2016 and the addition of Appendix 8, ICAO specified that the State shall approve and remain responsible for all Instrument Flight Procedures (IFPs) for aerodromes and airspace under the authority of the State. This implies that the State authorities have the final responsibility for the procedures published within their territory.
- 1.2. The State has developed this regulatory framework to set out its expectations for any Instrument Flight Procedure Design Service Provider (IFPDSP) intending to provide Instrument Flight Procedure Design Services (IFPDS) in Ireland.
- 1.3. The regulatory framework is based on the 8 fundamental critical elements enumerated in ICAO Doc 9734 Part A : Primary Aviation Legislation (CE-1), Specific Operating Regulations (CE-2), State Civil Aviation System and Safety Oversight Functions (CE-3), Technical Personnel Qualification and Training (CE-4), Technical Guidance, tools and the provision of safety-critical information (CE-5), Licensing, certification, authorization and approval obligations (CE-6), surveillance obligations (CE-7), resolution of safety concerns (CE-8).
- 1.4. IFPs in Ireland must be developed in accordance with the specifications contained in ICAO Doc 8168.
- 1.5. The IFP Design process encompasses, the acquisition of data, the design and promulgation of procedures. It starts with compilation and verification of the many inputs and ends with ground and/or flight validation of the finished product, and the final drafting of documentation for publication.
- 1.6. Aerodrome Operating Minima:
 - 1.6.1. The obstacle clearance altitude/heights (OCA/H) for the aircraft categories for which the procedure is designed shall be shown on the relevant instrument approach chart;
 - 1.6.2. The state **DOES NOT** publish visibility, MDA/H or DA/H for instrument approaches at aerodromes.
- 1.7. Readers should forward advice of errors, inconsistencies, requests for further information or suggestions for improvement to this regulatory requirement to airspace@iaa.ie.
- 1.8. This replaces ASAM No.017 "Guidance Material on Instrument Flight Procedure Design", Issue 3, Date: 21.01.15
- 1.9. ASAM No.017 "Guidance Material on Instrument Flight Procedure Design", Issue 3, Date: 21.01.15 is hereby cancelled.

	AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen	ASAM. No: 017 Issue 5 Date:02.11.20 Page 2 of 29
Title: Guidance Material on Instrument Flight Procedures		

2. References

- ICAO Annex 2 Rules of the Air;
- ICAO Annex 4 Aeronautical Charts;
- ICAO Annex 5 Units of Measurement;
- ICAO Annex 6 Aircraft Operations;
- ICAO Annex 11 Air Traffic Services;
- ICAO Annex 14 Vol I Aerodromes;
- ICAO Annex 14 Vol II Heliports;
- ICAO Annex 15 Aeronautical Information Services;
- ICAO Annex 19 Safety Management;
- ICAO Doc 8168 Procedures for Air Navigation Services – Aircraft Operations — Volume I Flight Procedures, and Volume II, Construction of Visual and Instrument Flight Procedures;
- ICAO Doc 8697 Aeronautical Chart Manual;
- ICAO Doc 9274 AN/904 Manual on the Use of the Collision Risk Model (CRM) for ILS Operations;
- ICAO Doc 9365 All Weather Operations Manual;
- ICAO Doc 9368 AN/911 Instrument Flight Procedure Construction Manual;
- ICAO Doc 9371 Template Manual;
- ICAO Doc 9573 RNAV Operations;
- ICAO Doc 9613 Manual of Required Navigation Performance (RNP);
- ICAO Doc 9643 Manual on simultaneous operations on parallel or near parallel instrument runways (SOIR).;
- ICAO Doc 9674 World Geodetic System 1984 (WGS 84) Manual
- ICAO Doc 9724 CRM Manual
- ICAO Doc 9734 Safety Oversight Manual – Part A, The Establishment and Management of a State’s Safety Oversight System
- ICAO Doc 9881 Guidelines for Electronic Terrain, Obstacle and Aerodrome Mapping Information;
- ICAO Doc 9906 Volume 1 – Flight Procedure Design Quality Assurance System
- ICAO Doc 9906 Volume 2 – Flight Procedure Designer Training (Development of a Flight Procedure Designer Training Program)
- ICAO Doc 9906 Volume 3 – Flight Procedure Design Software Validation
- ICAO Doc 9906 Volume 5 – Validation of Instrument Flight Procedures
- ICAO Doc 9906 Volume 6 – Flight Validation Pilot Training and Evaluation (Development of a Flight Validation Pilot Training Program)
- ICAO Doc 10068 Manual on the Development of a Regulatory Framework for Instrument Flight Procedure Design Service
- ED-77/RTCA DO-201 Standards for Aeronautical Information




**AERONAUTICAL SERVICES
ADVISORY MEMORANDUM
(ASAM)
Focal Point: Gen**

ASAM.
No: 017
Issue 5
Date:02.11.20
Page 3 of 29


Title: Guidance Material on Instrument Flight Procedures

- RTCA/DO-200A Standards for Processing Aeronautical Data
- Commission Regulation (EU) 73/2010 ADQ
- Commission Regulation (EU) 2018/1048 Laying down airspace usage requirements and operating procedures concerning performance-based navigation.
- Commission Regulation (EU) 2017/373 Common Requirements
- Commission Regulation (EU) No 139/2014 Aerodromes
- IAA ASAM 006 - Guidance Material on AIP Change Request;
- IAA ASAM 07 – Policy on naming of significant points
- IAA ASAM 09 – Guidance material on Aeronautical Information Regulation and Control (AIRAC);
- IAA ASAM 13 – Guidance material on Electronic Terrain and Obstacle Data (eTOD);
- IAA ASAM 016 - Policy on the identification of standard departure and arrival routes;

	AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen	ASAM. No: 017 Issue 5 Date:02.11.20 Page 4 of 29
Title: Guidance Material on Instrument Flight Procedures		

3. Definitions

- 3.1. **Aerodrome.** A defined area (including any buildings, installations and equipment) on land or water or on a fixed, fixed offshore or floating structure intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
- 3.2. **Aerodrome License Holder.** The accountable source for aeronautical and obstacle data related to an aerodrome.
- 3.3. **Aeronautical data.** Data relating to aeronautical facts, such as, inter alia, airspace structure, airspace classifications (controlled, uncontrolled, Class A, B, C... F, G), name of controlling agency, communication frequencies, airways/air routes, altimeter transition altitudes/flight levels, collocated instrument procedure (and its airspace as assessed by design criteria), area of magnetic unreliability, magnetic variation.
- 3.4. **Approved IFPDSP.** An IFPD Service Provider certified by the State.
- 3.5. **ATC SMAC.** A supplementary chart providing information that enables flight crews to monitor and cross-check altitudes assigned by a controller using an ATS surveillance system.
- 3.6. **Consensus.** The generally accepted opinion or decision among a group of people.
- 3.7. **Continuous descent operation (CDO).** An operation, enabled by airspace design, procedure design and ATC facilitation, in which an arriving aircraft descends continuously, to the greatest possible extent, by employing minimum engine thrust, ideally in a low drag configuration, prior to the final approach fix /final approach point.
- 3.8. **Continuous Climb Operation (CCO).** An operation, enabled by airspace design, procedure design and ATC, in which a departing aircraft climbs without interruption, to the greatest possible extent, by employing optimum climb engine thrust, at climb speeds until reaching the cruise flight level.
- 3.9. **Electronic Terrain and Obstacle Data (eTOD).** The digital representation of terrain and obstacles provided as datasets satisfying user requirements for a series of airborne and ground application such as EGPWS, TAWS, A-SMGCS, MSAW, Procedure Design etc.
- 3.10. **Integrated Aeronautical Information Package (IAIP).** A package which consists of the following elements:
 - AIP, including amendment service;
 - Supplements to the AIP;
 - NOTAM and PIB;
 - AIC; and
 - checklists and lists of valid NOTAM.
- 3.11. **PANS-OPS & Airspace Inspector.** An Inspector for the State, within the Irish Aviation Authority (IAA), Safety Regulation Division (SRD), Aeronautical Services Department, Air Navigation Services Division (ANSD) whose responsibilities include:

 The logo for the International Association of Airports (IAA) features a stylized blue and white graphic of an airport terminal and a small airplane icon above the letters 'IAA' in a bold, blue, sans-serif font.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 5 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

3.11.1. Approval of:

- Flight procedure designs;
- Airspace;
- Charting;
- AIP;
- Aeronautical data;
- Drone Geofencing.


3.11.2. Certification of:

- Aeronautical Information Service Providers;
- Instrument Flight Procedure Design Providers;
- Aeronautical Charting Providers;
- Flexible use of Airspace;
- Data originators

3.12. **Sponsor**

3.12.1. The aerodrome license holder or representative acting on the license holder's behalf.


3.12.2. There may be locations, other than an aerodrome, where development of an IFP is desirable for a specific commercial purpose. In these cases, the Sponsor is the entity who determines the requirement for an IFP and engages the services of an IFPDSP to develop the IFP on their behalf.

 The logo for the International Association of Air Navigators (IAA) features a stylized blue and white graphic of a globe or flight path on the left, and the letters 'IAA' in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 6 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

4. **Scope.** This guidance material is to ensure that IFPs & ATC SMACs:

- are designed to the required standard;
- are safe and flyable;
- meet Air Traffic Management requirements;
- are environmentally acceptable.

Note: *Chart changes which have no influence on the design of the IFP fall outside of scope. See ASAM 012 - 'Guidance Material on Chart Design'.*

 The logo for the International Air Association (IAA) features a stylized blue and white graphic of a globe or flight path on the left, and the letters 'IAA' in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 7 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

5. Flight Procedure Construction Principles.

5.1. General.

5.1.1. In addition to the primary consideration of obstacle clearance, IFPDSPs should consider principles such as simplicity & economics in terms of time & airspace.

5.1.2. Consistency between different procedures to the same runway should be applied to the extent feasible e.g. harmonisation of platform altitudes and FAF/FAPs.


5.2. Environmental.

5.2.1. Continuous Climb and Descent Operations.

5.2.1.1. Continuous Climb and Descent Operations (CCOs and CDOs) are aircraft operating techniques enabled by airspace design, instrument procedure design and facilitated by air traffic control (ATC).

5.2.1.2. To help reduce aircraft noise and CO2 emissions, IFPDSP should employ the principles of CCO/CDO in their designs (see ICAO Doc 9993 and ICAO Doc 9931).

5.2.2. **Noise Abatement.** IFPDSPs should comply with the provisions of ICAO Doc 8168 (PANS-OPS), Volume II, Part I, Section 3, Chapter 3, Appendix.

	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 8 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

6. Roles and Responsibilities

6.1. Aerodrome License Holder.

- 6.1.1. The aerodrome license holder shall be responsible for the design, continuous maintenance, periodic review and safeguarding of IFPs.
- 6.1.2. Shall ensure consultation with all relevant stakeholders regarding any proposed amendments to the IFPs.
- 6.1.3. Ensure the aeronautical data related to the aerodrome is complete and current.


6.2. Sponsor.

- 6.2.1. Ensure the IFP is developed according to the State's regulatory framework.
- 6.2.2. Shall have a maintenance and safeguarding plan in place for the published IFPs.
- 6.2.3. Ensure that an approved IFPDSP shall be contracted to carry out any new design, periodic review, maintenance or safeguarding.
- 6.2.4. Advise the State immediately when IFPs are no longer maintained, safeguarded or sponsored.
- 6.2.5. Consult with a PANS-Ops & Airspace Inspector in advance and during the design process.
- 6.2.6. At locations other than an aerodrome, the sponsor assumes the responsibilities of the aerodrome licence holder with respect to design continuous maintenance, periodic review and safeguarding of IFPs. A Service Level Agreement shall be signed to that effect, with the State, before any IFP is approved for publication.

- 6.3. **IFPDSP.** Consult with a PANS-Ops & Airspace Inspector in advance and during the design process.

6.4. The State.

- 6.4.1. According to ICAO Annex 11 the State:
 - 6.4.1.1. approves and remains responsible for all IFPs for aerodromes and airspace under the authority of the State.
 - 6.4.1.2. shall ensure that maintenance and periodic review of IFPs for aerodromes and airspace under the authority of the State are conducted.
 - 6.4.1.3. shall ensure that an instrument flight procedure design service provider intending to design an instrument flight procedure for aerodromes or airspace under the authority of that State meets the requirements established by that

	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 9 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

State's regulatory framework.

6.4.2. The State shall only accept designs that originate from an approved IFPDSP.

6.4.3. Regulatory oversight of AIS.

6.4.4. IFP policies, procedures and processes.

6.4.5. Approval of any new designs, maintenance, periodic reviews or any requests to amend an operational element of an existing IFP.


6.4.6. Retain IFP design documentation in compliance with regulatory requirements.

6.5. Aeronautical Information Management (AIM).

6.5.1. IAA, Service Provider, has the responsibility, on behalf of the State, to ensure that the provision of AIM is conducted in accordance with ICAO Annex 15 & Regulation (EU) 2017/373

6.5.2. AIS exercise this responsibility through the publication of the State Integrated Aeronautical Information Package (IAIP).

6.5.3. IAIP aeronautical data is the state source. Required updates shall be in line with ASAM 06 - Guidance Material on AIP Change Request.

	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 10 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

7. IFP Submission for Approval & Publication.

7.1. **Required Documents.** All documentation shall be submitted together electronically.

7.1.1. IFP Design File.

7.1.1.1. The design file should be in line with the approved IFPDSP internal policies, procedures and processes.

7.1.1.2. At a minimum it shall include:

- Documentation required to maintain transparency concerning the details, calculations and assumptions used by the IFPDS;
- Summary of the logic and decisions used in the step-by-step design of the procedure;
- Verification of ground validation;
- For modifications or amendments to existing procedures, the reasons for any changes;
- For any deviation from existing standards, the reasons for such a deviation and details of the mitigations applied to assure continued safe operations.

7.1.2. ICAO Annex 4.

7.1.2.1. Charts.

7.1.2.2. Aeronautical Database Tables.

7.1.3. Safety Assessments.

7.1.3.1. IFP (See Annex I).

7.1.3.2. ATM Safety Assessment where required (para 11).

7.1.4. **Consultation.** The sponsor shall consult with stakeholders, before submission. Evidence of consensus shall be included with the submission.


7.1.5. Where required:

7.1.5.1. AIP Submissions.

7.1.5.2. Flight Validation.

7.2. Approval Process.

7.2.1. Submissions shall be at least 40 working days prior to the AIRAC sign-off date (see ASAM 009 - Guidance Material on Aeronautical Information Regulation and Control (AIRACs)).

 The logo for the International Association of Air Traffic Controllers (IAA) features a stylized blue and white graphic of a globe or signal waves on the left, and the letters 'IAA' in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 11 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

7.2.2. ANSD will acknowledge in writing with timescales for the evaluation.


7.2.3. Submissions are reviewed on a first in, first out policy, unless otherwise agreed with the sponsor.

7.2.4. The review process shall be rejected if any of the following conditions exist:

- Insufficient submission;
- Discrepancies noted;
- Requirements not met;
- Not submitted in the required time period.

7.2.5. Re-submissions following a rejection will be regarded as a separate submission and the process will recommence.

7.2.6. The result of the evaluation will be by means of a Comment Response Document (CRD). See Annex II.

	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM)</p> <p style="text-align: center;">Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 12 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

8. Continuous Maintenance, Periodic Review & Safeguarding of IFPs.

8.1. Responsibility.

8.1.1. The aerodrome license holder shall be responsible for continuous maintenance, periodic review and safeguarding of IFPs.

8.1.2. At locations other than an aerodrome, the sponsor assumes the responsibilities of the aerodrome licence holder with respect to design continuous maintenance, periodic review and safeguarding of IFPs. A Letter of Agreement shall be signed to that effect, with the State, before any IFP is approved for publication.

8.2. Periodic Review.

8.2.1. Each IFP published in AIP Ireland will remain valid for a maximum period of five years from AIRAC effective date associated with approval of last submission (see para 7).

8.2.2. A periodic review shall be conducted, by a certified IFPDSP if any of the following conditions are met:


- Five-year validity period.
- Significant change to the aeronautical data, topographical data or obstacle environment requiring an amendment to OCA/H;
- Published bearing, track or radial falls into error by 1 degree, consequent on a change to magnetic variation or station declination;
- A stakeholder identifies a requirement to improve safety or operational efficiency;
- Change to aircraft category or characteristics;
- Change to route connectivity or airspace organisation;
- Change to the supporting navigation facility environment;
- Amendments to applicable ICAO specifications or other international and national standards and recommended practices;
- Where a change in procedural attitude is required;
- Errors or anomalies;
- When a significant change occurs to aerodrome physical characteristics such as runways;

8.3. **Continuous Maintenance.** The following tasks shall be conducted as each change occurs:

8.3.1. Assess the impact of all changes to obstacle data.

8.3.2. Assess the impact of all changes to aerodrome, aeronautical and navaid data.

8.3.3. Assess the impact of all changes to the State Regulatory Framework.

 The logo for the International Air Transport Association (IAA) is located in the top-left corner. It features a stylized blue and white graphic of a globe or flight path on the left, and the letters 'IAA' in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 13 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

8.3.4. Assess the impact of all changes to user requirements. Such changes include, but are not limited to:


- Fleet type (performance);
- Scheduled service route;
- ATM procedures;
- Airspace.

(Note: If the user requirements are not a safety-related issue, IFP amendments and/or new IFPs may be needed to satisfy current user requirements.)

8.4. Safeguarding.


8.4.1. Procedures shall be established for assessing & mitigating the risks associated with obstacles, developments and other activities which could impact IFPs. (Regulation (EU) No 139/2014, Annex IV, Subpart B, ADR.OPS.B.075 Safeguarding of aerodromes).

8.4.2. Where an assessment of the impact of a structure on IFPs is required it shall be completed by an approved IFPDSP & supplied to the State by the entity responsible for safeguarding. The assessment shall be verified by a person(s), within an approved IFPDSP, other than the designer, trained in procedure design and with the appropriate knowledge.

 The logo for the International Air Transport Association (IAA) is located in the top-left corner. It features a stylized blue and white graphic of a globe or flight path on the left, and the letters "IAA" in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 14 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

9. Automation Tools

- 9.1. IFPD automation tools have the potential to reduce errors in the procedure design process, as well as to standardise the application of the PANS-OPS criteria.
- 9.2. The IFPDSP shall ensure that automation tools used in the design of IFPs are validated as per ICAO Doc 9906 Volume 3.
- 9.3. Failure to supply evidence of validation may result in the submission being rejected.

 The logo for the International Airline Association (IAA) features a stylized blue and white graphic of an aircraft's wing and tail, with the letters 'IAA' in a bold, blue, sans-serif font to the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 15 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

10. Validation

10.1. Validation is the necessary final quality assurance step in the procedure design process, prior to publication. Validation consists of ground validation & as required, flight validation.

10.2. **Ground Validation.**

10.2.1. Ground validation is a review of the entire IFP package by a person(s), within an approved IFPDSP, other than the designer, trained in procedure design and with appropriate knowledge of flight validation issues. It is meant to arrest errors in criteria and documentation, and evaluate on the ground, to the extent possible, those elements that will be evaluated in a flight validation. Issues identified in the ground validation should be addressed prior to any flight validation.


10.2.2. Ground validation shall be completed for each submission.

10.3. **Flight Validation.**

10.3.1. Flight validation (aircraft or simulator) shall be carried where required in consultation with the State by an approved organisation.

10.3.2. The IFPDSP shall be the originator of all data applicable to conduct a flight validation provided to the flight validation operations activity. The IFPDSP should be prepared to provide briefings to the flight validation crews.

10.3.3. The IFPDSP may participate in the validation flight to assist in its evaluation and obtain direct knowledge of issues related to the IFP's design from the flight validation pilot and/or inspector.

	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 16 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

11. Safety Risk Assessment.

11.1. IFP Safety Risk Assessment:

11.1.1. Identifies safety risks associated with a change to an existing or the development of a new IFP and mitigations prior to submittal to the state authority. Factors determined to be safety-significant include but are not limited to:


- types of aircraft and their performance characteristics, including navigation capabilities and navigation performance;
- traffic density and distribution;
- airspace complexity; ATS route structure and classification of the airspace;
- aerodrome layout;
- type and capabilities of ground navigation systems;
- any significant local or regional data's (e.g. obstacles, infrastructures, operational factors, etc.).
- post implementation monitoring to verify that the defined level of safety continues to be met.

11.1.2. Identifies compliances or differences with ICAO Doc 8168.

11.1.3. The sponsor shall ensure that the IFP Safety Risk Assessment is completed.


11.1.4. See Annex I for IFP Safety Risk Assessment Template.

11.2. ATM Safety Assessment. Where any element of an IFP affects a service provider's ATM functional system as defined under Regulation (EU) 2017/373, that service provider shall carry out a safety assessment in accordance with its safety management system.

	<p style="text-align: center;"> AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen </p>	<p style="text-align: right;"> ASAM. No: 017 Issue 5 Date:02.11.20 Page 17 of 29 </p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		


12. Aeronautical Data.

- 12.1. **eTOD.** See IAA ASAM 013 - Guidance Material on Electronic Terrain and Obstacle Data.
- 12.2. **Magnetic Variation.** The magnetic variation value shall be obtained from IAIP Ireland GEN 3.5 Meteorological Services.
- 12.3. **Station Declination.** The station declination value shall be obtained from IAIP Ireland GEN 2.5 List of Radio Navigation Aids.
- 12.4. **Hot & Cold temperature.** Hot & Cold temperature values shall be obtained from IAIP Ireland GEN 3.5 Meteorological Services.
- 12.5. **5LNCs.** See IAA ASAM 07 – Policy on Naming of Significant Points.
- 12.6. **Route Designators.** See IAA ASAM 016 - Policy on the identification of standard departure and arrival routes.
- 12.7. **Rounding.** Rounding of results shall follow the standard guidelines in ICAO Doc 8168 and related ICAO publications.

 The logo for the Instituto Aeronáutico Argentino (IAA) features a stylized blue and white graphic of a wing or signal on the left, and the letters 'IAA' in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 18 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

13. Errors, Inconsistencies & Anomalies.


- 13.1. It is the responsibility of the aerodrome licence holder, through continuous maintenance and periodic review to identify errors, inconsistencies & anomalies.
- 13.2. The State will ensure that identified errors, inconsistencies or anomalies are resolved in a timely manner.
- 13.3. The State will notify the aerodrome license holder to publish, through NOTAM, the IFP as unavailable.
- 13.4. The IFP will remain unavailable until such time as the errors, inconsistencies or anomalies are resolved by the aerodrome licence holder.

 The logo for the International Air Transport Association (IAA) is located in the top-left corner. It features a stylized blue and white graphic of a globe or flight path on the left, and the letters "IAA" in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 19 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

14. External Queries.

- 14.1. Queries received by the State from external entities, with respect to a specific published IFP, will be forwarded to the relevant sponsor. The sponsor will draft a response for the State for approval. The State shall reply to the original query.

- 14.2. Where appropriate, or as determined by the State. the sponsor will engage an approved IFPDSP. Any resultant updates to the IFP shall be processed as outlined above, following consultation with the State.

 The logo for the International Air Association (IAA) features a stylized blue and white graphic of a globe or flight path on the left, and the letters 'IAA' in a bold, blue, sans-serif font on the right.	<p style="text-align: center;">AERONAUTICAL SERVICES ADVISORY MEMORANDUM (ASAM) Focal Point: Gen</p>	<p style="text-align: right;">ASAM. No: 017 Issue 5 Date:02.11.20 Page 20 of 29</p>
<p>Title: Guidance Material on Instrument Flight Procedures</p>		

15. PANS-Ops Differences.

15.1. The sponsor shall:

15.1.1. Identify any differences from ICAO Standards, Recommended practices & Procedures.

15.1.2. Ensure all differences are safety risk assessed.

15.2. Only where an identifiable operational advantage can be gained, without compromising safety will differences be considered.

15.3. The notification of differences will result in a considerably increased lead-in time due to the associated ICAO requirements (ICAO Doc 10055 Manual on Notification and Publication of Differences).

1. Introduction.

a. **Purpose.** The following is an IFP safety risk assessment for:

- i. [Description];
- ii. [Aerodrome/Location];
- iii. [ANSP];
- iv. [Effective Date];
- v. [etc].

b. **AIP sections affected:**

- i. [Relevant AIP Section];
- ii. [Effective Date].

2. Compliance Check.

a. **Compliant.** [The change is compliant with the State Regulatory framework. – Complete Annex I, paras 1 & 2].

b. **Non-compliant.** [Deviation from the State Regulatory framework. – Complete Annex I, paras 1 - 5].

3. **Documentation.** Please see attached:

- a. [e.g. Design file];
- b. [e.g. Updated chart];
- c. [e.g. Database Table];
- d. [e.g. Stakeholder consultation];
- e. [etc].

4. **IFPDSP.** The work was completed by [insert company], an approved IFPD service provider.

5. **Action Plan.** [Outline action plan to include post implementation monitoring to verify the defined levels of safety continues to be met].

ANNEX 1 – IFP SAFETY RISK EVALUATION & COMPLIANCE CHECK

1. **IFP Safety Risk Value Explanation.** Below are a simplified IFP safety risk assessment values from the guidelines as laid out in ICAO Safety Management Manual (SMM), document 9859 Part 6. Included in the following ICAO table is how the simplified values correspond to the ICAO values.

Table 6-1. ICAO Risk Assessment Matrix Principles & Simplified Values

SEVERITY OF CONSEQUENCES			LIKELIHOOD OF OCCURRENCE			Simplified IFP Safety Risk Assessment	
Aviation definition	Meaning	Value	Qualitative definition	Meaning	Value	Meaning	Value
Catastrophic	Equipment destroyed. Multiple deaths.	5	Frequent	Likely to occur many times	5	High risk	5
Hazardous	A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely. Serious injury or death to a number of people. Major equipment damage.	4	Occasional	Likely to occur sometimes	4	Medium risk	4
Major	A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of an increase in workload, or as a result of conditions impairing their efficiency. Serious incident. Injury to persons.	3	Remote	Unlikely, but possible to occur	3		3
Minor	Nuisance. Operating limitations. Use of emergency procedures. Minor incident.	2	Improbable	Very unlikely to occur	2	Low risk	2
Negligible	Little consequence.	1	Extremely improbable	Almost inconceivable that the event will occur	1		1

ICAO Safety Management Manual (SMM), document 9859 Part 6 states:

“6.4.2 When the acceptability of the risk has been found to be Undesirable or Unacceptable, control measures need to be introduced – the higher the risk, the greater the urgency. The level of risk can be lowered by reducing the severity of the potential consequences, by reducing the likelihood of occurrence or by reducing the exposure to that risk.”

2. **Initial IFP Safety Risk Evaluation & Compliance Check.**

Item	State Regulatory Framework Compliant	Low risk	Medium risk	High risk	Notes
		1 to 2	3 to 4	5	
[Insert Item 1]	Y/N				[Insert Explanation]
[Insert Item 2]	Y/N				
[Insert Item 3]	Y/N				
Total assessed IFP safety risk value					
IFP Safety Risk Assessment		[Risk Level]			

Note: A separate ATM risk assessment may be required.

3. **Conclusion.**

- a. The proposal [is / is not] compliant with the State regulatory framework.
- b. The IFP Safety risk is [un]acceptable.

[N.B. When there is a deviation from the State regulatory framework and/or the risk is deemed greater than 'low risk', the proposal shall be withdrawn or a mitigation submitted (para 4) for consideration. An updated IFP Safety Risk Evaluation & Compliance Check shall be completed (para 5 & 6).]

4. **Mitigation.** [Proposed mitigation if required].

IFP Safety Risk Assessment – [TITLE]


5. **Updated IFP Safety Risk Evaluation & Compliance Check** (following mitigation in 4 above).

Item	State Regulatory Framework Compliant	Low risk	Medium risk	High risk	Notes
		1 to 2	3 to 4	5	
[Insert Item 1]	Y/N				[Insert Explanation]
[Insert Item 2]	Y/N				
[Insert Item 3]	Y/N				
Total assessed IFP safety risk value					
IFP Safety Risk Assessment		[Risk Level]			

Note: A separate ATM risk assessment may be required.

6. **Updated Conclusion.**

- a. The proposal [is / is not] compliant with the State regulatory framework (following mitigation in 4 above).
- b. The IFP safety risk is [un]acceptable (following mitigation in 4 above).

	ASD.F.324 AMDT No: 01 Issue Date: 14/10/20	SAFETY REGULATION DIVISION POLICY AND PROCEDURES
Title: Comment Response Document - Airspace (Airspace Inspectorate, Instrument Flight Procedure & Chart Validation, Comment Response Document)		
Responsibility: SRD Assistant Director, Aeronautical Services Department		

Name of Change :

Contributors :


Consolidator :

COMMENT RESPONSE DOCUMENT HISTORY

Issue	Date	Description


REVIEWED DOCUMENTS

Acronym	Filename	Document Title	Version	Issue Date	Date Received

	ASD.F.324 AMDT No: 01 Issue Date: 14/10/20	SAFETY REGULATION DIVISION POLICY AND PROCEDURES
Title: Comment Response Document - Airspace (Airspace Inspectorate, Instrument Flight Procedure & Chart Validation, Comment Response Document)		
Responsibility: SRD Assistant Director, Aeronautical Services Department		

STANDARDS UESD FOR VALIDATION

Standard	Amendment	Corrigenda

	ASD.F.324 AMDT No: 01 Issue Date: 14/10/20	SAFETY REGULATION DIVISION POLICY AND PROCEDURES
Title: Comment Response Document - Airspace (Airspace Inspectorate, Instrument Flight Procedure & Chart Validation, Comment Response Document)		
Responsibility: SRD Assistant Director, Aeronautical Services Department		

This document is intended, through the different issues, to report the remarks corresponding to the regulatory oversight review activities performed on the identified document(s) corresponding to an Instrument Flight Procedure (IFP) and/or Chart Change(s).

Remarks are classified according to the following 4 categories:

- **Major:** A comment on a critical issue ANSD considers significant enough to prevent regulatory approval of the proposed change(s) unless resolved by the service provider (e.g. a non-conformity to applicable regulatory requirements, or non-adherence to an organisation's own requirement, or an important problem that shall be resolved by the organisation).
- **Minor:** A comment on other issues indirectly affecting the compliance demonstration, which ANSD considers are necessary to address before proceeding. Whilst not solely preventing regulatory approval of the proposed change(s) the accumulation of these issues can lead to the prevention of regulatory approval of the proposed change(s).
- **Question:** The question may be associated to an issue that requires clarification. However, upon receipt of further information the CRD question classification will change to a Closed, Minor or Major classification.
- **Editorial:** Observations on missing information or editorials of a nature which are needed to provide clarity or ensure no ambiguity exists by the absence of that information.

Additionally, it is necessary to note that the review process shall be rejected if any of the following conditions exist:


- Insufficient submission;
- Discrepancies noted;
- Requirements not met;
- Not submitted in the required time period.

Re-submissions following a rejection will be regarded as a separate submission and the process will recommence.

Comments and questions may be reclassified following updated information from the service provider.

Comments may have the following status:

- **Open:** For a new comment, or when a response is not yet considered satisfactory by the review team.
- **Dispositioned:** When an action is agreed.
- **Closed:** When the service provider provides a satisfactory written response, or when evidences are provided that an agreed action has been performed.

	ASD.F.324 AMDT No: 01 Issue Date: 14/10/20	SAFETY REGULATION DIVISION POLICY AND PROCEDURES
Title: Comment Response Document - Airspace (Airspace Inspectorate, Instrument Flight Procedure & Chart Validation, Comment Response Document)		
Responsibility: SRD Assistant Director, Aeronautical Services Department		

No.	Doc.	Section	ANSD Comment/Observation/Question	Regulatory Reference	Classification	ANSP Answer	Status
R1.							

Airspace Inspector
 ASSD/SRD