



Aeronautical Information Management

Instrument Procedure Design Submission  
Overview for Aerodromes

Effective Date: 3 April 2017  
P-IPD-102 Version 17.3

This document contains information proprietary to NAV CANADA. Any disclosure or use of this information or any reproduction of this document for other than the specific purpose for which it is intended is expressly prohibited except as NAV CANADA may otherwise agree in writing.

Le contenu de ce document est la propriété de NAV CANADA. Toute divulgation ou usage de cette information ou toute reproduction de ce document dans un but autre que celui pour lequel ce document a été créé, est strictement défendu sans l'autorisation écrite de NAV CANADA.

# Table of Contents

Table of Contents .....	3
Record of Amendments .....	5
1 General .....	7
1.1 Purpose of this Document.....	7
1.2 Regulatory Context .....	7
1.3 Roles and Responsibilities .....	7
1.3.1 Transport Canada .....	7
1.3.2 NAV CANADA .....	8
1.3.3 Aerodrome Operator .....	8
1.3.4 Instrument Procedure Sponsor .....	8
1.3.5 External Design Organization (EDO) .....	9
2 EDO Program .....	11
2.1 Registered EDO Program .....	12
2.2 Preferred EDO List.....	12
3 Instrument Procedure Design and Maintenance .....	15
3.1 NAV CANADA Provision of Service .....	15
3.2 Publication of Instrument Procedures .....	15
3.2.1 The Instrument Procedure Inventory.....	15
3.3 Aeronautical Data.....	16
3.3.1 Collection.....	16
3.3.2 Submission.....	17
3.3.3 Obtaining Aeronautical Data for IP Design .....	17
3.4 Obstacle Data.....	17
3.4.1 Existing Obstacles.....	17
3.4.2 New Obstacles .....	17
4 Submission Process .....	19
4.1 Overview .....	19
4.2 Submission Processing.....	20
5 Related Documentation .....	21
6 Definitions .....	23
7 Acronyms and Abbreviations .....	25
8 Approvals .....	27

This page is intentionally left blank

## Record of Amendments

Effective Date	Version	Reason for Amendment
15 Apr 2016	16.5	Original publication
3 Apr 2017	17.3	<p>Changed contact email addresses to a single, new email address; section 1.1, changed “severe” to “major”; section 1.3.1, deleted first paragraph, clarified a sentence; section 1.3.2, changed “should” to “shall”; section 1.3.4, added “or aircraft operator”, and added to the Note and bullet point following the note; deleted section 1.3.5, <i>Non Aerodrome as a Sponsor</i>; new section 1.3.5, added the point that was deleted in section 1.3.4 and a new point regarding altimeter setting source; Chapter 2 intro: added new content describing EDO and Sponsor responsibilities; section 2.1, made minor amendments to clarify text; section 2.2, defined “Quality”, made minor amendments to clarify text, and changed “AIM Procedure Design” to “IFP Design” to reflect current organization; section 3.2.1, changed where to find minima in TP 308”, clarified content regarding a registered aerodrome without attestation, replaced “Operations Specification” with “Special Authorization”, removed specific TP 308 reference; section 3.3.1, added the requirement for aerodrome operators to be copied on all correspondence regarding data; section 3.3.2, added a new sentence about altimeter setting source; section 4.1, minor amendments to formatting; section 4.2, specified who sends the notification; no safety impact identified by these amendments</p>

This page is intentionally left blank

# 1 General

---

## 1.1 Purpose of this Document

For a full copy of the *External Design Organization (EDO) IPD Submission Manual*, please contact [service@navcanada.ca](mailto:service@navcanada.ca).

This document provides an overview regarding interaction between NAV CANADA and External Instrument Procedure Design Organizations (EDOs) with respect to the development, maintenance and submission of Instrument Procedures (IP) for publication in the *Canada Air Pilot (CAP)* or the *Restricted Canada Air Pilot (RCAP)*.

This document does not apply to Instrument Procedures developed by the Department of National Defence (DND) submitted for publication in the GPH 200 series of products.

## 1.2 Regulatory Context

There are two sections of the *Canadian Aviation Regulations (CARs)* Part VIII that are applicable to the development and publication of IPs:

- CARs Part VIII, Subpart 3, Aeronautical Information Service (AIS), provides the definition of an Aeronautical Information Service and the regulations to be adhered to in providing that service. Within the context of this document, NAV CANADA is authorized by the state to provide the Aeronautical Information Service for Canada.
- CARs Part VIII, Subpart 3, Development and Publication of Instrument Procedures, provides the regulations pertaining to development of Instrument Procedures in Canada. All instrument procedure design organizations developing Instrument Procedures for publication in Canada are subject to these regulations.

## 1.3 Roles and Responsibilities

### 1.3.1 Transport Canada

Regulatory oversight of the NAV CANADA AIS/AIM is exercised by Transport Canada. In this role, Transport Canada has the responsibility to ensure that the provision of the AIS/AIM is conducted in manner that is in accordance with CARs Part VIII.

Transport Canada is the authority for issuing and updating TP 308, *Criteria for the Development of Instrument Procedures*. Exemptions or deviations to the approved instrument procedure design criteria must be obtained in writing from the appropriate Transport Canada Authority.

### 1.3.2 NAV CANADA

Under the Civil Air Navigation Service Commercialization Act (CANSICA) 1996, NAV CANADA is assigned responsibility for the Canadian Aeronautical Information Service. NAV CANADA exercises this responsibility through publication of the state Integrated Aeronautical Information Package. Instrument Procedures form part of the Integrated Aeronautical Information Package and are published in the CAP or RCAP.

As stated, NAV CANADA has the responsibility for the state AIS as outlined in CARs Part VIII. This responsibility includes the requirement to receive and/or originate, collate or assemble, edit, format, publish/store and distribute aeronautical information/data concerning the entire territory of the State as well as areas in which the State is responsible for air traffic services outside its territory.

As the provider of the Aeronautical Information Service, NAV CANADA AIM aeronautical data is considered the state source. As such, this state aeronautical data shall be used as the foundation data for the development of IPs. Required updates to the state aeronautical data must be provided to NAV CANADA by the accountable source for validation prior to use for other aeronautical purposes such as development of IPs.

In the role of publisher of IPs in the Integrated Aeronautical Information Package, NAV CANADA must collect and verify the aeronautical data related to Instrument Procedures. Additionally, NAV CANADA must have assurance that the requirements of CARs Part VIII have been met. To meet this requirement, a quality check of IPs and the associated aeronautical data is conducted according to NAV CANADA internal processes and procedures. Publication of an IP is dependent on meeting the aeronautical data and IP design requirements of CARs Part VIII.

### 1.3.3 Aerodrome Operator

The aerodrome operator is the accountable source for aeronautical and obstacle data related to an aerodrome. The aerodrome operator is responsible to ensure the aeronautical data related to the aerodrome is complete and current. These data include but are not limited to aerodrome information and the associated instrument procedure for the aerodrome. While aerodrome operators can sponsor instrument procedures and contract the design and maintenance to a third party, they are still the accountable source for that procedure.

### 1.3.4 Instrument Procedure Sponsor

There may be locations where development of an IP is desirable for a specific commercial purpose that does not meet the NAV CANADA's Level of Service Policy. In these cases, an Aerodrome or aircraft operator sponsors the development and publication of an Instrument Procedure. Where the Sponsor is not the Aerodrome Operator, the Sponsor shall make an agreement with the Aerodrome Operator to provide Instrument Procedures (IP) to the Aerodrome. As a Sponsor, the aerodrome or aircraft operator engages the services of an EDO to develop and maintain the IP on their behalf. The Sponsor is responsible to:

- Ensure the IP is developed according to CARs Part VIII;
- Ensure the IP has been designed in accordance with any policies concerning wildlife, environmental, noise or any other applicable criteria;
- If designed using alternate criteria, obtain a "Deviation Approval" letter from the minister (ref TC AC 803-004);
- Have a maintenance plan in place for the published Instrument Procedure (this includes an obstacle evaluation plan in place to assess the impact of proposed or newly constructed obstacles on the published IPs);
- Develop a NOTAM plan indicating the Flight Information Centre (FIC) contact information required to produce a NOTAM for the procedure;

- Notify NAV CANADA when contact information changes for the aerodrome;
- Advise NAV CANADA when the maintenance contract is no longer in place or when the IP is no longer sponsored at [edo@navcanada.ca](mailto:edo@navcanada.ca);  
**Note:** NAV CANADA will not accept transfer of maintenance for a procedure contracted for design by an External Design Organization unless NAV CANADA is contracted to do so.
- Confirm with NAV CANADA on the validity of the documentation in situations where a private altimeter source is used;
- Request extensions, deviations and exemptions from regulatory criteria by submitting the necessary requests to Transport Canada; and
- Use NAV CANADA submission policy and associated forms.

For Sponsors who are not the Aerodrome operator, the Sponsor shall provide a letter from the Aerodrome authorizing the organization to act as a Sponsor on their behalf; the letter shall include the scope of activities expected of the Sponsor by the Aerodrome.

### 1.3.5 External Design Organization (EDO)

Design Organizations not contracted by NAV CANADA are considered EDOs who develop IPs on behalf of a Sponsor. EDOs are responsible to:

- Support the Sponsors coordination with NAV CANADA ANS Planning on potential sites for IP development to determine the NAV CANADA service level.
- Support the Sponsor's coordination with the applicable Air Traffic Services organization prior to commencing the design to ensure compatibility with the existing ANS structure.
- Ensure the aerodrome operator submits any new or revised aeronautical data resulting from development of the IP to NAV CANADA AIM Service Delivery (SD) Production Planning.
- Support the Sponsor's coordination with Transport Canada for any required exemptions or deviations to the standards of CARs Part VIII.
- Support the Sponsor's submission of newly developed or revised instrument procedures for publication in accordance with the instructions contained in this document.
- Retain original instrument procedure design documentation of sufficient detail and traceability to satisfy regulatory audit requirements.
- Ensure the availability of an altimeter setting source that meets the requirements of CARs Section 804.01.c or exemption conditions.
- Review, revise and maintain published instrument procedures according to regulatory requirements and sponsorship agreements.
- Be fully responsible for the quality of the design and flight inspections performed under CARs Part VIII.
- Advise NAV CANADA on an annual basis, the number of IPs planned to be developed and maintained at [edo@navcanada.ca](mailto:edo@navcanada.ca). This information will be used by NAV CANADA to determine the level of effort required to process the submitted IPs

This page is intentionally left blank

## 2 EDO Program

---

In recent history, EDO designs have been incorporated into the integrated network of procedures published by NAV CANADA under its legislated mandate to provide Air Navigation Service (ANS) for Canada. Going forward, NAV CANADA will work solely with the Accountable Source or Sponsor (defined in section 1.3.4) when accepting design submissions for publication.

To maintain the integrity of the national ANS, NAV CANADA has defined an Instrument Procedure Design Submission Process that outlines the required activities for Sponsors to submit standards-compliant designs for publication.

Under Canada's ANS framework, there are a number of entities tasked with the responsibility for the upkeep of elements of the ANS. Aerodromes are considered the accountable source for all information regarding the aerodrome including the instrument procedures designed for the Aerodrome's facilities.

For the purpose of this program, Sponsors are aerodromes or aircraft operators. It is the responsibility of the Sponsor to submit *Canadian Aviation Regulation* (CAR) compliant instrument procedure design submissions to NAV CANADA and all communications related to the status of any submission will be coordinated through the Sponsor.

EDOs (acting on behalf of Sponsors) are responsible at aerodromes where NAV CANADA has IPs to coordinate with NAV CANADA to keep common IP data consistent; for example, 100 NM Safe Altitude.

When a Sponsor is not the aerodrome operator, the aerodrome operator shall sign the Sponsor's Responsibility Form to indicate concurrence with the Sponsor's IP(s).

External Design Organizations that are contracted by Sponsors to provide design services, in the context of this policy, would provide:

- a. development and/or maintenance of an instrument procedure design,
- b. geographic and/or obstacle survey of the aerodrome, or
- c. flight inspection services.

In all cases, EDOs are considered by NAV CANADA as contractors to Sponsors. NAV CANADA AIM will only accept submissions directly from a Sponsor (and not its Agents/Contractors) and will address any issues that arise with a submission with the Sponsor.

These definitions and roles are important for NAV CANADA to manage the risk in changes to aeronautical information and for the timely publication of designs.

## 2.1 Registered EDO Program

Valid instrument procedures are the product of accurate data, trained designers and diligent quality review. In an effort to support the Sponsors, and indirectly the EDO companies, NAV CANADA established a Registered EDO Program.

Being a participant to the program will include:

- a. Access to NAV CANADA aeronautical data to support design development;
- b. Access to the NAV CANADA-hosted criteria interpretation website;
- c. Access to NAV CANADA AIM annual work plans; and
- d. Communication of status, without preference, as a Registered member of the EDO Program

In return for being a participant, NAV CANADA requires:

- a. Pre-notice of any EDO's planned design activities, updated quarterly;
- b. EDOs to maintain a good standing in the program through:
  - a. Maintaining training in design criteria for designers, through training approved by Transport Canada. Training records must be available for auditing by NAV CANADA.
  - b. Maintaining an auditable set of information related to the quality control of submissions it may prepare for Sponsors for ultimate submission by the Sponsor to NAV CANADA.

Registration for the EDO Program can be requested through NAV CANADA AIM at [edo@navcanada.ca](mailto:edo@navcanada.ca).

Being a registered EDO with NAV CANADA is intended to eliminate potential time delays in processing and publishing instrument procedures. It is also intended to help control ANS costs by reducing the duplication of work through advanced planning for work at aerodromes and reduce NAV CANADA quality control services.

With the implementation of the program, NAV CANADA will no longer accept designs from Sponsors who use EDOs not participating in the Registered EDO Program.

## 2.2 Preferred EDO List

Those design organizations that are registered in the Registered EDO Program will be monitored for completeness of submissions, data consistency / completeness and criteria compliance of submissions. Those meeting the quality expectations of the program will be eligible to be on a Preferred EDO list.

When on the Preferred EDO list, an EDO can expect:

- a. To be eligible to receive sampled QA instead of full QA, thereby reducing the timelines to publication; and
- b. To have NAV CANADA communicate endorsement, without preference, of an EDO's level of work to Sponsors.

If an EDO does not maintain the requisite level of quality, they will be removed from the Preferred Suppliers list until improvements can be demonstrated to NAV CANADA.

The expected quality performance targets will be communicated to all Registered EDOs on an annual basis; however, NAV CANADA reserves the right to adjust the quality metrics used to assess EDO performance when deemed necessary.

Quality Assurance Sampling policies:

- Quality refers to data, criteria and adherence to the NAV CANADA process set out in this Manual
- It is in the best interest of the EDO, Sponsors and NAV CANADA to have error-free submissions.
- The intent of the sampling program is to manage risk by ensuring the quality of designs is managed at an acceptable level while also ensuring quality work is not unnecessarily delayed in publication.
- Quality performance of each EDO will be monitored on an ongoing basis as new designs are submitted by Sponsors.
- A statistically significant sample size must exist to evaluate annually or the EDO will remain at 100% verification rate.
- EDOs must exhibit a high degree of error free work to be considered for the application of a sampling rate.
- Sampling rates will be at the 100%, 75%, 50% and 25% levels. Qualification to a certain sampling rate will be determined by the number of major and minor errors found during review at any level.
- Different design types may have different sampling rates based on statistical evidence or at NAV CANADA's discretion.
- Different design types may include a percentage of full and a percentage of elemental QA. Elemental QA is a partial verification of certain design elements that may be critical to the design or which have shown to be elements of the design that typically may have errors.
- Qualification to a certain sampling rate will be determined by a Sampling Review Board consisting of representatives from NAV CANADA AIM Quality and Safety, IFP Design and AIM Standards who will review the number of major and minor errors found during quality inspection at any level.
- Major errors and minor errors will be collected by NAV CANADA.
  - Single minor errors with an agreed Corrective Action Plan to avoid reoccurrence will normally result in a reset of the sampling rate to the next highest level.
  - Repeated minor errors of the same type will result in a reset of the sampling rate for an EDO to 100%.
  - Major errors will trigger a reset of the sampling rate for an EDO to 100%.
- NAV CANADA reserves the right to review any specific file regardless of the sampling rate applied to the EDO.
- Results of the monitoring program will be communicated to EDOs as needed to advise of any change in sampling rate or, at a minimum, on an annual basis in the case where there has been no change to status.
- The performance of NAV CANADA contracted Suppliers, when acting as an EDO to a sponsor other than NAV CANADA, will be assessed in the same manner as other EDOs registered in the program.

This page is intentionally left blank

## 3 Instrument Procedure Design and Maintenance

---

### 3.1 NAV CANADA Provision of Service

Provision of service by NAV CANADA is determined on a case-by-case basis through application of the NAV CANADA Level of Service policy. The contact address for NAV CANADA Programs Coordination is [service@navcanada.ca](mailto:service@navcanada.ca).

### 3.2 Publication of Instrument Procedures

#### 3.2.1 The Instrument Procedure Inventory

The Instrument Procedure Inventory contains two types of Instrument Procedures: Public Instrument Procedures and Restricted Instrument Procedures. EDOs developing or revising Instrument Procedures to be published in the inventory must clearly identify on the Instrument Procedure Submission Form which category of Instrument Procedure has been developed.

Prior to publication in the instrument procedure inventory, each submitted Instrument Procedure will be reviewed in accordance with NAV CANADA AIM Policy and Procedures.

#### Public Instrument Procedure

Criteria-compliant Instrument Procedures at certified aerodromes or registered aerodromes for which an Aerodrome Operator Attestation has been received shall be published in the *Canada Air Pilot* as indicated in AC 301-001. Guidance on the requirements for the Aerodrome Operator Attestation may be found at the following hyperlink: <http://www.tc.gc.ca/eng/civilaviation/opssvs/management/services-referencecentre-ac300-301-001-119.htm>. The *Aerodrome Operator Attestation Form* (F-IPD-124) is available on the NAV CANADA corporate website.

An Aerodrome Operator Attestation is required for every registered aerodrome runway end to which a public Instrument Procedure is developed and must be included with the instrument procedure submission package. Instrument Procedures to runways at registered aerodromes that do not have a corresponding Aerodrome Operator Attestation will be published as a Restricted Instrument Procedure in the RCAP. Lowest minima for these Instrument Procedures will be set as per TP 308.

Any deviation required for an instrument procedure sponsored by an aerodrome must be requested in accordance with Transport Canada procedures.

## Restricted Instrument Procedures

There are a number of factors used to determine that an Instrument Procedure is restricted and must be published in the *Restricted Canada Air Pilot*:

- **Exemption or Deviation:** Instrument Procedures that require an exemption from CARs Part VIII to deviate from the criteria specified in TP 308 shall be published in the RCAP:
  - Each Instrument Procedure that requires an exemption from CARs Part VIII to deviate from the criteria specified in TP 308 shall be submitted to Transport Canada for approval.
  - Transport Canada will formally respond to requests by aerodromes for exemption from CARs Part VIII to deviate from the criteria specified in TP 308 by letter. If approved, the letter shall become part of the design file and a copy shall be included with the IP design submission package forwarded to NAV CANADA.
  - Each approved exemption from CARs Part VIII to deviate from the criteria specified in TP 308 will be subject to a Special Authorization. The text of the Special Authorization will be provided by Transport Canada and shall be included in the IP design submission package forwarded to NAV CANADA.
- **Registered Aerodrome without Attestation:** An IP to a landing surface for which an Aerodrome Operator Attestation has not been received that is criteria compliant (except for TP 308 (minimum standards for Aerodromes)) shall **NOT** be published in the CAP.
- **Airborne Radar Approach (ARA) Procedures:** These IPs are specific to Rotary Wing Aircraft servicing offshore oil platforms. ARA IPs are submitted for inclusion in the RCAP by Transport Canada and are published without review by NAV CANADA. Transport Canada determines the Ops Spec requirements for ARA IP and provides the text with the submission.

## 3.3 Aeronautical Data

### 3.3.1 Collection

NAV CANADA AIM SD Production Planning is responsible to coordinate with accountable sources for the collection of aeronautical data. This data is validated, stored and then used to create aeronautical products for use by the aviation community.

There are instances where External Instrument Procedure Design Organizations act on behalf of an aerodrome operator as the accountable source for aerodrome data. A letter from the aerodrome operator authorizing the EDO to act on his/her behalf must be provided. Aeronautical data collected and submitted in this regard must be verified by NAV CANADA AIM SD Data Collection Specialists. Aerodrome operators will be copied on all correspondence with regards to aerodrome data.

External Instrument Procedure Design Organizations who are acting as the accountable source for aeronautical data on behalf of an aerodrome operator should refer to the TP 312 for the accuracy and resolution required for aerodrome data. This is particularly true for aeronautical data related to precision and non-precision runways that will be used in the Instrument Procedure design process.

When providing aeronautical data, submitters should be prepared to submit the associated metadata. For example, an accountable source that submits revised runway threshold coordinates will be required to provide information about how and when the data was collected.

### 3.3.2 Submission

New or revised aeronautical data must be submitted to NAV CANADA AIM SD Production Planning for validation prior to being used in the Instrument Procedure design process. To ensure the data is fully processed by AIM SD Production Planning, new or revised aeronautical data must be received at least 90 days prior to submission of the completed IP design. For further information on the aeronautical data submission process, contact AIM Service Delivery by phone at 1-866-577-0247 or by email at [edo@navcanada.ca](mailto:edo@navcanada.ca).

### 3.3.3 Obtaining Aeronautical Data for IP Design

Validated aeronautical data related to all aerodromes in Canada are available for use by Registered EDOs. Data will be provided by NAV CANADA to requesting Registered EDOs on a site-by-site request basis. For further information, contact NAV CANADA Customer and Commercial services by phone (613) 563-7652 or email [service@navcanada.ca](mailto:service@navcanada.ca).

IPs submitted for review and publication that contain aeronautical data that differ from the state source at NAV CANADA AIM will not be processed until the data discrepancies are resolved. This will result in delayed processing of the submitted IP for publication.

## 3.4 Obstacle Data

### 3.4.1 Existing Obstacles

Validated obstacle data for all areas of Canada are available for use by External Instrument Procedure Design Organizations. A licence agreement between the External Instrument Procedure Design Organization and NAV CANADA may be required. For further information, contact NAV CANADA Customer and Commercial services by Phone (613) 563-7652 or email [service@navcanada.ca](mailto:service@navcanada.ca). Under the registered EDO Program, EDOs are automatically provided this data under the agreement.

### 3.4.2 New Obstacles

During the course of collecting aeronautical data, completing the IP design process and the necessary flight check, EDOs occasionally become aware of man-made obstacles that are not in the NAV CANADA AIM obstacle database. In these cases, NAV CANADA requests that as much information about the obstacle as possible be submitted to [AIM SD Land Use](#) for further investigation.

This page is intentionally left blank

## 4 Submission Process

---

### 4.1 Overview

The submission process describes the information required and the format in which to submit IPs for publication in the CAP or RCAP.

This submission process does not relieve or exempt the Sponsor and associated External Instrument Procedure Design Organization from any of its regulatory responsibilities under CARs Part VIII.

Original IP design material shall be retained by the External Instrument Procedure Design Organization on behalf of the Sponsor. This original design material should be used in the maintenance program, regulatory audit and any other purpose as determined by the original designer. To complete internal review of the procedure development and to record all aeronautical information used in the design, NAV CANADA requires copies of certain sections of the IP design file. The IP will be assessed based on the submitted information.

If data discrepancies are observed during the NAV CANADA review, consultation with the Sponsor and External Instrument Procedure Design Organization will be required. To reduce the opportunity for delays in publishing new or revised instrument procedures, it is very important that the instrument procedure design submission be complete and not contain discrepancies.

Submitted IPs will be reviewed according to NAV CANADA policies and procedures. The review process shall be stopped and communication with the Sponsor and External Instrument Procedure Design Organization initiated if any of the following conditions exist:

- the submission package is not complete,
- data discrepancies are noted, or
- the instrument procedure does not meet the requirements of CARs Part VIII.

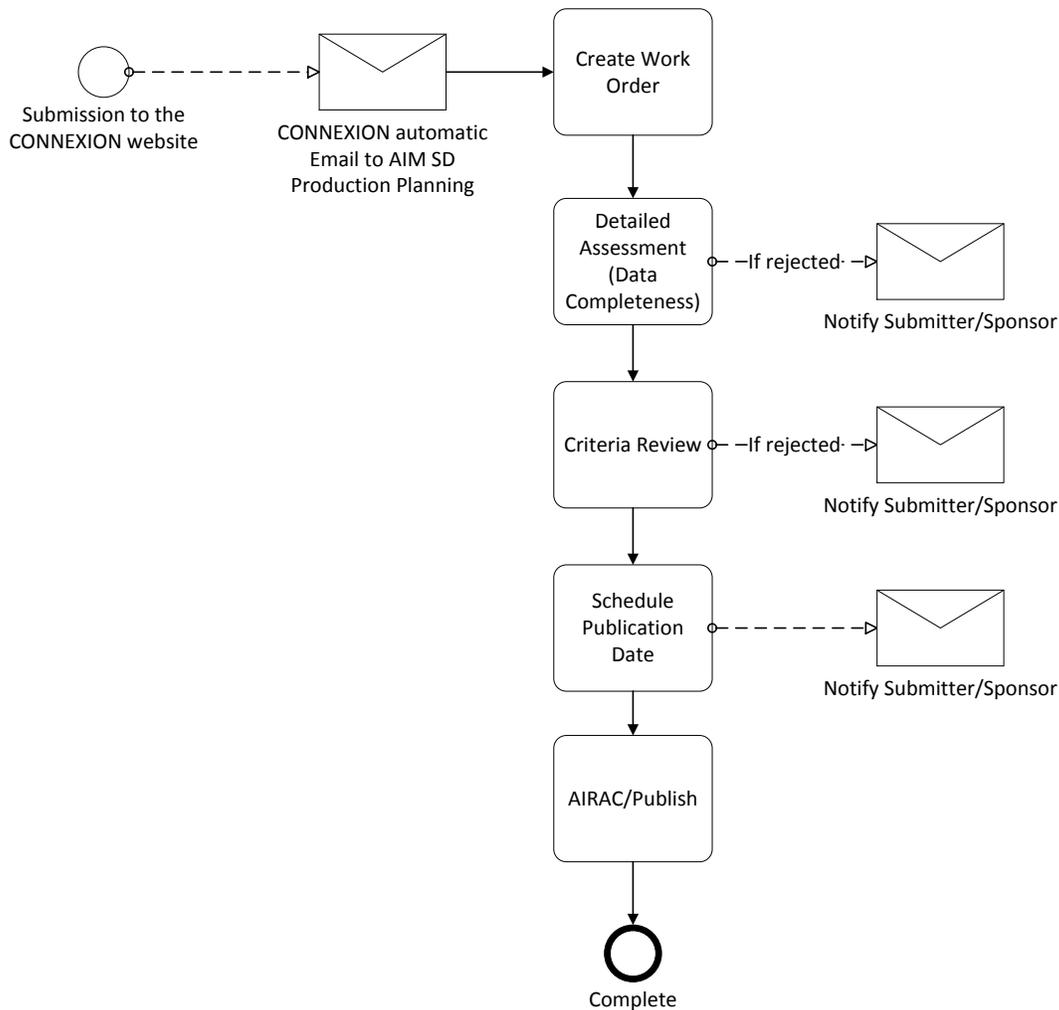
The procedure may be returned in whole to the submitter as not accepted for publication and a new submission will be required.

NAV CANADA will make every attempt to review submissions related to existing IPs prior to their expiry. New IPs are reviewed on a first in, first out policy. NAV CANADA reserves the right to process a submission in an expedited manner if it is deemed material to the ANS; for example, ice runway submissions.

Each IP submitted by, or on behalf of, a Sponsor from an External Instrument Procedure Design Organization shall have a regulatory review date assigned. Each Instrument Procedure developed by an External Instrument Procedure Design Organization and published in the *Canada Air Pilot* or the *Restricted Canada Air Pilot* is valid until the assigned regulatory review date. This date is determined by NAV CANADA from the information provided on the Submission Form in accordance with the direction provided in Transport Canada's *Advisory Circular (AC) No. 803-004*.

## 4.2 Submission Processing

When a submission is posted into the CONNEXION website, NAV CANADA performs a series of reviews before accepting for publication in the State AIP.



**Figure 1: EDO Production Process within NAV CANADA**

The steps outlined in Figure 1 are internal NAV CANADA processes. Of note to submitters are the following:

- Submitting through the CONNEXION website will trigger an email notification to AIM SD Production Planning that a submission has been made.
- If there are critical issues of submission in data completeness review or the criteria review, the submission is rejected, and the submitter and sponsor will be notified. This means that a new submission will be required.
- When the submission has successfully gone through data completeness and criteria review, the submission is deemed accepted. Notification of the acceptance of the submission and an intended effective date (Publication Date) will be sent to the submitter and the sponsor by IFP Design. If there is an outstanding flight check, it will be required before publication of the procedure.

## 5 Related Documentation

---

The following documents are used in conjunction with this manual to fulfill requirements:

- *Canada Air Pilot (CAP)*
- *Restricted Canada Air Pilot (RCAP)*
- *Canadian Aviation Regulations (CARs)*
- *Civil Air Navigation Service Commercialization Act (CANSCA)*
- *TP 308 Criteria for the Development of Instrument Procedures Operations Specification 099 or 410*
- *ICAO Annexes 4, 14, 15*
- *Transport Canada Advisory Circular (AC) No. 301-001 and 803-004*
- *Transport Canada Civil Aviation Directive (CAD) No. REG-003*
- *Approach Submission Form (F-IPD-129)*
- *Departure / SID Submission Form (F-IPD-130)*
- *STAR Submission Form (F-IPD-131)*
- *Sponsor's Responsibility Form (F-IPD-123)*
- *Aerodrome Operator Attestation Form (F-IPD-124)*
- *RNAV Approach Submission Form (F-IPD-135)*

It is the responsibility of the EDO to obtain the current version of the forms from the NAV CANADA CONNEXION website.

This page is intentionally left blank

## 6 Definitions

Accountable Source	A person or organization responsible and liable for the information or service they provide.
Agent	Any person or organization contracted by a Sponsor to perform IP Design services.
Contractor	Any person or organization contracted by a Sponsor to perform IP Design services.
Error Collection Process	One element of NAVCANADA's Data and IP Design review process.
Major Error	<p>An incorrect item within the submitted design file that is not in compliance with:</p> <ol style="list-style-type: none"> <li>a. Regulatory requirements; for example, CARs, TP 308</li> <li>b. AIM Design standards</li> </ol> <p><b>Example:</b> FAS DB with data that would guide an aircraft to touch down outside the Touch Down Zone or cross the Threshold at a height that does not comply with regulatory TCH requirements per TP 308.</p>
Minor Error	<p>An incorrect item within the submitted design file that does not fit the definition of a Major error, is editorial in nature and does not require a redesign:</p> <ol style="list-style-type: none"> <li>a. Errors related to value precision/accuracy, or textual/clerical</li> <li>b. Errors that could result in a significant service penalty due to required NOTAM, flight crew or ATC action</li> </ol>
Quality Assurance	All the planned and systematic activities implemented within the quality system, and demonstrated as needed, to provide adequate confidence that an entity will fulfill requirements for quality.
Repetitive Errors	A specific error that occurs consistently (same data element) – occurs three times in ten submissions.
Sponsor	The person or organization that funds and supports the IPs that are submitted, maintained and reviewed.
Sponsorship Agreement	An arrangement/contract between the sponsor and the EDO that gives the EDO the responsibility/Authority to maintain, conduct periodic reviews, amend procedures and perform commissioning and periodic flight checks.
Validation	Confirmation through the provision of objective evidence that the requirements for a specific intended use or application have been fulfilled (ISO 9000). The activity whereby a data element is checked as having a value that is fully applicable to the identity given to the data element, or a set of data elements that is checked as being acceptable for its purpose.
Verification	Confirmation by examination and provision of objective evidence that specified requirements have been fulfilled.

This page is intentionally left blank

## 7 Acronyms and Abbreviations

<b>5LNC</b>	5 Letter Name Code
<b>AIRAC</b>	Aeronautical Information Regulation and Control
<b>AIM</b>	Aeronautical Information Management
<b>AIS</b>	Aeronautical Information Service
<b>ANS</b>	Air Navigation System
<b>ARA</b>	Airborne Radar Approach
<b>ATS</b>	Air Traffic Services
<b>CANSCA</b>	Civil Air Navigation Service Commercialization Act
<b>CAP</b>	<i>Canada Air Pilot</i>
<b>CARs</b>	<i>Canadian Aviation Regulations</i>
<b>CRC</b>	Cyclic Redundancy Check
<b>DND</b>	Department of National Defence
<b>EDO</b>	External Design Organization approved to perform design in Canada
<b>FAS</b>	Final Approach Segment
<b>FIC</b>	Flight Information Centre
<b>FPDAM</b>	Design Software
<b>GNSS</b>	Global Navigation Satellite System
<b>IAP</b>	Instrument Approach Procedure
<b>ICAO</b>	International Civil Aviation Organization
<b>ILS</b>	Instrument Landing System
<b>IP</b>	Instrument Procedure
<b>LOC</b>	Localizer
<b>LPV</b>	Localizer Performance with Vertical Guidance
<b>LUA</b>	Land Use Assessment
<b>MA</b>	Missed Approach
<b>MSA</b>	Minimum Sector Altitude
<b>NACC</b>	North American, Central American and Caribbean Region
<b>NAVAID</b>	Navigational Aid
<b>NDB</b>	Non Directional Beacon
<b>RCAP</b>	<i>Restricted Canada Air Pilot</i>
<b>RIP</b>	Restricted Instrument Procedure
<b>RNAV</b>	Area Navigation
<b>RRD</b>	Regulatory Review Date
<b>SID</b>	Standard Instrument Departure
<b>STAR</b>	Standard Arrival Route
<b>TP 308</b>	<i>Criteria for the Development of Instrument Procedures</i>
<b>VHF</b>	Very High Frequency
<b>VOR</b>	VHF Omnidirectional Range
<b>WAAS</b>	Wide Area Augmentation System

This page is intentionally left blank

## 8 Approvals

---

This document shall be reviewed on a regular basis in accordance with the *BMP – Control of Documents*.

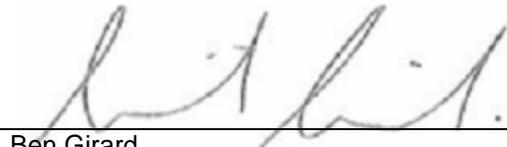


---

Rob Thurgur  
Vice President, Operations

---

April 2017  
Date (Month/Year)

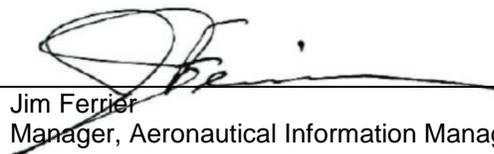


---

Ben Girard  
Assistant Vice President, Operational Support

---

April 2017  
Date (Month/Year)



---

Jim Ferrier  
Manager, Aeronautical Information Management

---

April 2017  
Date (Month/Year)

This page is intentionally left blank