



# How to Use NAV CANADA Aeronautical Information Products

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## About this Guide

The goal of this guide is to provide clarity about the intended use of individual Canadian aeronautical information products. Using products in ways that do not align with their intended use can significantly and negatively impact safety. To enhance safety and to encourage appropriate use, this guide presents descriptions of how, and in what circumstances, to use the various aeronautical information products.

## References

The aeronautical information products referenced in this guide are consistent with:

- **ICAO Annexes and Documents**
  - Annex 15 – International Standards and Recommended Practices – Aeronautical Information Services
  - Annex 4 – International Standards and Recommended Practices – Aeronautical Charts
  - PANS-AIM – Procedures for Air Navigation Services – Aeronautical Information Management
- **Transport Canada Documents**
  - Canadian Aviation Regulations (CARs)
  - Transport Canada Aeronautical Information Manual (TC AIM)

## Updates to Aeronautical Information Products

All published aeronautical information products are subject to both temporary or permanent updates between publication and update cycles. These changes may be the subject of a NOTAM or an Aeronautical Information Publication (AIP) Supplement. It is imperative that the currency of all published information be verified by reference to current NOTAMs and AIP Supplements (AIP SUP) for the area and nature of operation.

In a NOTAM, information changed permanently includes PERM as the end time under **Item C**). The NOTAM remains in place until the information is incorporated into the relevant aeronautical information products.

Information which is temporary but of long duration (more than 3 months) may be transferred to an AIP Supplement.

NOTAMs are also used to point to published AIP Supplements. They contain an overview of the subject within the supplement as well as the supplement serial number. These NOTAMs remain in force for the validity period of the AIP Supplement. **It is imperative to review AIP Supplements as part of the flight planning process.**

## Feedback

NAV CANADA appreciates feedback on all our products and, wherever practicable, publications will reflect customer needs and requests. Submit any questions or comments to [service@navcanada.ca](mailto:service@navcanada.ca).

## Use and Limitations of Products

**IMPORTANT:** It is fundamental that users understand and recognize the use and limitations of these aeronautical information products and use them only as intended. If operations beyond the intended use — or outside of the limitations — are required, alternative means of navigation and information need to be used.

## Aeronautical Information Publication (AIP) Canada

### Use

The [Aeronautical Information Publication \(AIP\) Canada](#) is Canada's official aeronautical information publication source. It contains aeronautical information that is of lasting character. AIP Canada includes these sections:

**Part 1 - General (GEN)** contains general information about the AIP Canada and Canadian Domestic Airspace (CDA), International Commercial Flight Aerodromes, entry requirements, NOTAM request procedures and NOTAM series, etc.

**Part 2 - Enroute (ENR)** contains information for flight through the CDA including North Atlantic Operations, communication, surveillance and navigation requirements.

**Part 3 - Aerodromes (AD)** contains information about Canadian aerodromes and heliports.

With a few exceptions, the AIP Canada provides only general infrastructure information. For other required information, the AIP Canada refers to aeronautical information products such as the Canada Flight Supplement (CFS), Canada Air Pilot (CAP), Restricted Canada Air Pilot (RCAP), the Enroute High Altitude (HI) and Low Altitude (LO) IFR chart series, and the Terminal Area Charts (TACs).

The AIP Canada is available only in electronic format and is updated every 56 days.

### *AIP Canada Supplements*

[AIP Canada Supplements](#) contain safety-critical information and are used in lieu of, or to complement, a NOTAM when temporary information contains extensive text or graphics. An AIP Canada Supplement can be published when the temporary information is known to be of long duration (3 months or more). If the information is communicated at short notice, a NOTAM may be issued before the AIP Supplement is published.

NOTAMs are also used to advertise the presence of an AIP Canada Supplement and remain in force as long as the AIP Supplement is published. **It is imperative that the AIP Canada Supplements are reviewed during the flight planning process.**

New AIP Canada Supplements are uploaded every two weeks, on Thursdays, and removed after the activity or event is completed.

AIP Canada Supplements are published for major construction projects to provide flight crews information about construction phases, changes in runway dimensions and declared distances, changes in taxi routes, runway lighting and markings, etc. This type of supplement is complemented with NOTAMs to handle information more dynamic in nature.

### *Aeronautical Information Circulars (AICs)*

An **Aeronautical Information Circular (AIC)** is a notice containing information that does not qualify for a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative, or legislative matters.

New AICs are uploaded every two weeks, on Thursdays, and removed after the activity or event is completed.

### **Limitations**

Minor editorial changes may be made to the AIP Canada without advance Aeronautical Information Regulation and Control (AIRAC) notification.

## 1:500,000 VFR Navigation Chart (VNC) Series

### Use

The [VFR Navigation Chart \(VNC\)](#) series is intended for VFR navigation throughout Canada on short to extended cross-country flights at low to medium altitudes and at low to medium airspeeds. The VNC series satisfies the requirements of visual air navigation for operations at or below 12,500 feet Above Mean Sea Level (AMSL). To facilitate air navigation, the chart displays aeronautical information and sufficient topographic detail with a unique colour scheme, layer tinting, and shaded relief. The scale is 1:500,000.

The VNC series provides information for:

- Pre-flight planning:
  - Drawing track lines and using magnetic variation information to determine track in magnetic degrees
  - Map reconnaissance to locate major features (cities, roads, railways, etc.) for lateral navigation
  - Establishing vertical flight profiles with reference to terrain and obstacle elevations
- In-flight navigation:
  - Determining horizontal position relative to desired track with reference to ground features
  - Determining distances, especially to destination
  - Identifying aerodromes, waypoints, frequencies, airspace boundaries, etc.
  - Determining vertical position relative to obstacles and terrain

### Limitations

- Due to the scale of each chart (1:500,000), it should not be used for flight in low ceiling and visibility conditions. The lowest weather minima is established in TC AIM RAC Figure 2.2; use of the 1:500,000 VNC series in or below such conditions is not advisable.
- Not all obstacles will be shown—it is impracticable to guarantee all obstacles have been included.
- Not all landmarks, or geographical and aeronautical features can be shown.
- Training or parachute dropping areas are identified with a symbol, but the boundaries are not shown.
- Due to the long chart update intervals (one, two, or five years) some aeronautical information may not be current. Each VNC chart shows, under the title, the date of that edition, the date to which topographical data are corrected and the effective date of airspace amendments. New information (obstacles, restricted and advisory areas, revised control zones, etc.) may initially be advertised by NOTAM or AIP Supplement, then published in the Canada Flight Supplement (CFS) and ultimately incorporated in a chart revision.
- The VNC contains less aeronautical information than the [VFR Terminal Area Chart \(VTA\)](#). Users are therefore asked to use VTA charts where available.
- The information over the United States of America (including Alaska) and other international territories is limited and should not be used for navigation or flight planning. Refer to the individual state products for up-to-date information (including NOTAMs from these countries).

## 1:250,000 VFR Terminal Area (VTA) Chart Series

### Use

The [VFR Terminal Area \(VTA\) Chart](#) series provides detailed information in congested air traffic areas. The seven charts of the series cover Toronto, Montreal, Vancouver, Winnipeg, Calgary, Edmonton, and Ottawa. All charts are at a scale of 1:250,000.

The VTA series is intended for VFR navigation in the terminal area and provides information for:

- Pre-flight planning:
  - Drawing track lines and using magnetic variation information to determine track in magnetic degrees.
  - Map reconnaissance to locate major features (cities, roads, railways, etc.) for lateral navigation
  - Establishing vertical flight profiles with reference to terrain, obstacles, and runways.
- In-flight navigation:
  - Identifying arrival and departure routes and VFR checkpoints
  - Determining horizontal position relative to desired track with reference to ground features
  - Determining distances, especially to destination
  - Determining vertical position relative to obstacles and terrain
  - Identifying control zones, frequencies, common frequency areas and airspace boundaries
  - Identifying the general location of training areas

### Limitations

- Due to the scale of these charts (1:250,000), they should not be used for flight in low ceiling and visibility conditions. TC AIM RAC establishes weather minima for control zones as 1000 feet above ground level (AGL) and 3 miles visibility; use of the 1:250,000 VTA series in or below such conditions is not advisable.
- Not all obstacles are shown. In general, only obstacles greater than 300 feet AGL are shown as well as known structures lower than 300 feet AGL that are considered obstacles to air navigation.
- Not all landmarks, or geographical and aeronautical features are shown.
- The boundaries of flight training areas are not shown.
- The boundaries of Common Frequency Areas are shown only on the back of the chart.
- Some aeronautical information may not be current because the chart update interval is one year. Each VTA chart shows, under the title, the date of that edition, the date to which topographical data are corrected and the effective date of airspace amendments. New information (obstacles, restricted and advisory areas, revised control zones, etc.) may first be advertised by NOTAM or AIP Supplement, then published in the Canada Flight Supplement (CFS) and ultimately incorporated in a chart revision.
- The information over the United States of America is limited and should not be used for navigation or flight planning. Refer to the individual state products for up-to-date information (including American NOTAMs).

## Canada Flight Supplement (CFS)

### Use

The [Canada Flight Supplement \(CFS\)](#) is a joint civil and military publication. It provides detailed [IFR](#) and [VFR](#) information for Canadian aerodromes as well as limited information on selected North Atlantic aerodromes or facilities. The CFS is essential for safety and operational effectiveness in both IFR and VFR operations and should be used for all pre-flight planning, in-flight operations, and for emergency procedures. Associated services and national aviation infrastructure information is also included in the CFS.

The CFS is organized into these sections:

**General:** Tables, legends, and associated information necessary for interpretation of the material in the supplement

**Aerodrome Directory:** Data and sketches for Canadian aerodromes and heliports and selected aerodromes in the North Atlantic

**Planning:** Information for flight planning, characteristics of airspace, chart updating, flight restrictions, IFR mandatory routes, airway intersections, common frequency areas, and areas of responsibilities for FISE RCO/DRCO

**Radio Navigation and Communications:** Data for radio navigation aids and communication facilities

**Military:** Flight procedures and data, including sections on procedures for flight in the USA, North Atlantic and Alaska, air and ground communications, and military training routes and areas

**Emergency:** Emergency procedures

The CFS is updated every 56 days.

### Limitations

- The CFS, when used with relevant enroute and terminal aeronautical information products, completes the total aeronautical information package required for a flight.
- The information contained in the CFS is current only during the listed effective period. Since CFS information may be temporary or permanently amended or cancelled, NOTAMs and AIP Supplements must be consulted to ensure that the most current information is used for flight operations.
- Aerodrome sketches and charts are **not** drawn at a scale that permits the depiction of hot spots. To make this information available to personnel involved in VFR operations only, hot spots are shown on charts included in the [Canadian Airport Charts](#).
- The CFS does **not** contain detailed information about water aerodromes; that information is contained in the [Canada Water Aerodrome Supplement \(CWAS\)](#).



## VFR Terminal Procedures Charts (VTPC)

### Use

The VFR Terminal Procedures Charts (VTPC) are contained within the [Canada Flight Supplement \(CFS\)](#) and [Canada Water Aerodrome Supplement \(CWAS\)](#). The VTPCs are published for areas where the scale of a VNC or VTA would be inadequate to clearly show information in control zones or around busy aerodromes.

The aim of the VTPC is to improve safety and situational awareness and should be reviewed as part of the flight planning process. The VTPCs portray, among other aeronautical information:

- Relevant Class F airspace and other hazards
- Established VFR routes and checkpoints
- Airspace boundaries and Flight Training zones boundaries
- Communication information and boundaries
- Hazard beacons and noise sensitive areas
- Irregular shape circuits

The scale of each VTPC varies and is therefore included on the chart.

### Limitations

- VTPCs are **not suitable for precise lateral navigation** and therefore, the applicable VFR aeronautical chart should be used.
- Not all obstacles may be shown. Often, only the highest obstacle within each quadrant of the applicable area is shown, and it is not practical to depict all landmarks, or geographical and aeronautical features.
- VFR checkpoints are not intended to be used as a primary means of navigation or to be included in a flight plan.
- The presence of IFR waypoints indicates the presence of instrument flight procedures in that location.

## Canada Water Aerodrome Supplement (CWAS)

### Use

The [Canada Water Aerodrome Supplement \(CWAS\)](#) contains detailed information for all water aerodromes shown on Canadian VFR charts. The CWAS is to be used as a reference for the planning and safe conduct of VFR air operations to and from water aerodromes. Water aerodrome sketches may include shoals, ferry routes, take-off and landing directions, and docks. The tabulated data and graphical information in CWAS supplement the VFR charts, and includes the following sections:

- Special Notices and General
- Aerodrome/Facility Directory
- Planning
- Radio Navigation and Communications
- Emergency

The CWAS is published annually in March.

### Limitations

- The information contained in the CWAS is current only during the listed effective period. Since CWAS information may be either temporarily or permanently amended or cancelled, NOTAMs and AIP Supplements must be consulted to ensure that the most current information is used for flight operations.
  - **Since the CWAS is published annually in March, pilots should also consult a current [Canada Flight Supplement \(CFS\)](#) to ensure that they are aware of all aeronautical information that may impact their flight.**
- The CWAS **does not repeat all** general, planning, radio navigation and communications, and emergency information contained in the CFS.

## Canada Air Pilot (CAP)

### Use

The [Canada Air Pilot \(CAP\)](#) is a series of seven volumes that provides aeronautical information primarily related to the IFR arrival or departure phases of flight. Before each flight, it is essential to study the CAP to become familiar with each procedure anticipated at the destination and its alternate. The CAP GEN volume is an integral part of the CAP series and contains important information. Users must be familiar with the general procedural and terminology material in this publication to safely use the seven core volumes.

The CAP comprises the following flight procedure types:

- Instrument Approach Procedure (IAP)
- Diverse and Standard Instrument Departure (SID)
- Standard Instrument Arrival (STAR)
- Noise Abatement Procedure
- Visual Approaches

It also contains ground operations information such as parking areas and de-icing facilities along with aerodrome and taxi charts.

Aerodrome charts in the CAP show hot spots where established. The hot spots may also show on taxi and low and reduced visibility taxi charts as well as parking charts where applicable.

The CAP is available only in electronic format and is updated every 56 days.

### Limitations

- The CAP is not intended for use in VFR operations.
- The CAP is regularly amended, either temporarily or permanently, by NOTAM and AIP Supplements, especially at high traffic aerodromes. Users must always check NOTAMs and AIP Supplements for their proposed areas of operation.
- The CAP procedure pages are necessarily complex.

## Restricted Canada Air Pilot (RCAP)

### Use

The [Restricted Canada Air Pilot \(RCAP\)](#) publication provides aeronautical information related to the arrival and departure phases of restricted flight instrument procedures. These procedures are restricted and require prior Transport Canada approval to be flown due to their design criteria deviations, or proprietary design.

The RCAP includes the following procedure types:

- Instrument Approach Procedure (IAP)
- Diverse and Standard Instrument Departure (SID)
- Standard Instrument Arrival (STAR)
- Noise Abatement Procedure

The RCAP also contains ground operations information in aerodrome charts. The aerodrome charts show hot spots, where established. Where applicable, the hot spots may also show on parking charts and taxi and low and reduced visibility taxi charts.

The RCAP is available only in electronic format and is updated every 56 days.

### Limitations

- The RCAP is not intended for use in VFR operations.
- The RCAP differs from the CAP in that it provides restricted procedures that use alternative means to achieve safety. Only operators with specific authority from Transport Canada (Ops Spec) can legally fly these procedures because they have been designed with certain deviations from the regulations. These deviations are permitted because of special crew training, operational procedures, and aircraft capability.

## Enroute Low Altitude (LO) Chart

### Use

The Enroute Low Altitude (LO) chart series provides flight crews with information to facilitate navigation along air traffic service (ATS) routes in compliance with ATS procedures. It depicts radio navigation data to provide rapid and precise location and identification of information needed for radio instrument navigation. The LO chart series is intended for use in the low-level airspace structure (below 18,000 feet Above Mean Sea Level (AMSL)) for IFR route planning and inflight navigation.

The LO chart series comprises 10 charts which depict aeronautical radio information, airways system, controlled and uncontrolled airspace structure, special-use airspace, communication stations and selected aerodromes.

### Limitations

- This IFR chart series is not suitable for VFR navigation as it provides no obstacle, terrain, road, or other data needed for visual flight.
- Vertical coverage is up to, but not including, 18,000 feet AMSL.
- The Canadian information contained on these charts is current only during the listed effective period. Since enroute information may be amended or cancelled, NOTAMs and AIP Supplements must be consulted to ensure that only current information is used for flight operations.
- The information over the United States of America (including Alaska) and other international territories is limited. Refer to the individual state products for up-to-date information (including NOTAMs from these countries).

## Enroute High Altitude (HI) Chart

### Use

The Enroute High Altitude (HI) chart series provides flight crews with information to facilitate navigation along high-level airways and routes in compliance with air traffic control procedures. It depicts radio navigation data to provide rapid and precise location and identification of information needed for radio instrument navigation. The HI chart series is intended for use in high-level airspace (18,000 feet AMSL and above) for IFR route planning and inflight navigation.

This series comprises six HI charts which depict aeronautical radio information, high-level airways structure, controlled and uncontrolled airspace structure, special-use airspace, communication facilities, and selected aerodromes.

### Limitations

- This IFR chart series is **not suitable for VFR navigation** as it provides no obstacle, terrain, road, or other data needed for visual flight. Vertical coverage includes 18,000 feet AMSL (FL180) and above.
- The Canadian information contained on this chart series is current only during the listed effective period. Since enroute information may be amended or cancelled, NOTAMs and AIP Supplements must be consulted to ensure that only current information is used for flight operations.
- The information over the United States of America (including Alaska) and other international territories is limited. Refer to the individual state products for up-to-date information (including NOTAMs from these countries).

## Terminal Area Chart (TAC)

### Use

The **Terminal Area Chart (TAC)** series depicts aeronautical radio navigation information, airways system, controlled and uncontrolled airspace structure, special use airspace, communication stations, and selected aerodromes in congested areas at a larger scale. Vertical coverage is from the surface up to—but not including—18,000 feet AMSL.

This chart series provides flight crews with information to facilitate IFR navigation in the terminal area of aerodromes in compliance with air traffic services (ATS) procedures. It is intended to assist in the transition from the enroute portion of the flight to the arrival portion, or from the departure portion to the enroute portion, at those terminals where the airspace structure is relatively complex.

**This information is in addition to what is displayed on the Enroute series and instrument procedure charts.**

The TAC is revised every 56 days.

### Limitations

- The TAC **does not depict any aeronautical information that is already depicted on the LO Enroute Chart or on the instrument approach procedure or departure procedure chart.**
- The eighteen-chart TAC series is for use up to—but not including—18,000 feet AMSL within Canadian Domestic Airspace (CDA) and that airspace over international waters and foreign territory in which Canada accepts responsibility for the provision of Air Traffic Control services.
- The set includes these terminal areas:

#### Side 1

Vancouver/Victoria  
Edmonton  
Calgary  
Saskatoon  
Winnipeg  
Iceland  
Azores

#### Side 2

Thunder Bay  
Windsor  
Toronto  
Montreal  
Ottawa  
Quebec  
Moncton  
Halifax  
Gander  
Bermuda  
Keflavik/Iceland

Charts for the Azores, Bermuda, and Iceland (Keflavik) are included for military use.

- The Canadian information contained on this chart series is current only during the listed effective period. Since information may be amended or cancelled, NOTAMs and AIP Supplements must be consulted to ensure that only current information is used for flight operations.
- The information over the United States of America (including Alaska) and other international territories is limited. Refer to the individual state products for up-to-date information (including NOTAMs of these countries).

## Canadian Airport Charts (Airport Diagrams)

### Use

The [Canadian Airport Charts](#) provide pictorial displays of the manoeuvring areas for each Canadian airport listed in the Canada Air Pilot (CAP) or Restricted Canada Air Pilot (RCAP) or the military General Pilot Handbook (GPH) 200. The charts provide the location of hot spots, where established, for personnel who do not subscribe to the CAP or RCAP. The Canadian Airport Charts are free of charge and may be reproduced for the sole purpose of assisting pilots during aircraft ground movement operations.

The Canadian Airport Charts are updated on a 56-day cycle. The next issue is made available no later than 10 days before the effective date.

### Limitations

The Canadian Airport Charts alone have insufficient data and information for a pilot to operate at an aerodrome. Up-to-date information on flight planning procedures and airport services, including fuel, lighting, and local prohibitions or procedures is found in the [Canada Flight Supplement \(CFS\)](#).



## Type A Obstacle Charts for Aerodromes

### Use

The [Type A Obstacle Charts](#) provide operators of large aircraft detailed information regarding significant obstructions in runway approach and departure areas at selected aerodromes.

In combination with relevant information published in the [AIP Canada](#), the charts provide the data necessary to enable an operator to comply with the operating limitations of ICAO Annex 6, Part I, Chapter 5 (paras 5.2.8 and 5.3), and Part III, Section II, Chapter 3 (Helicopters). This data is used in performance calculations and allows aircraft operators to determine the ability of specific aircraft types under specific conditions to clear obstacles with an engine inoperative. In addition, these charts provide crews with a visual representation of the obstacle environment.

Aerodromes submit land survey data to NAV CANADA who make it available to users as Type A Obstacle Charts.

For information about the most current charts, see: [ICAO Type A Charts](#).

### Limitations

- The Type A Obstacle Chart series is prepared for selected aerodromes for use by operators of large aircraft and provides detailed information about obstacles to air navigation in the approach and departure areas of runways. These charts are required for operational planning purposes. Only the charts listed on the NAV CANADA website are valid.
- The aircraft operator is responsible to determine how to extract data from the chart and determine which format to use to communicate the information to crews.