



# FIT FOR PURPOSE:

## A Guide to Using NAV CANADA Aeronautical Publications



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# GENERAL MATERIAL

## Rationale for this Initiative

The goal of this document is to provide clarity as to the intended use of individual Aeronautical Information Publications. Use of publications in manners that do not align with their intended purpose can significantly and negatively impact safety. The following description of how and in what circumstances the various aeronautical publications should be used is presented to enhance safety and to encourage appropriate use.

## NOTAM

All publications are subject to amendment between publication/update cycles. These changes will be the subject of a NOTAM. It is imperative that the currency of all publications be verified by reference to current NOTAMs for the area and nature of operation.

## The ePUB Compact Disk (CD)

This CD contains all 56-day cycle publications in electronic format. This includes the Canada Flight Supplement, Canada Air Pilot, LO and HI Enroute Charts and Canada Water Aerodrome Supplement. The information contained on this disk is for reference purposes only. **IT IS NOT SUITABLE FOR AIR NAVIGATION PURPOSES.** The electronic maps are NOT depicted to scale and are not necessarily of the same colours as the paper charts. Pilots and other users are advised to obtain and use paper charts and maps for air navigation purposes.

## General Safety Statement

It is fundamental that users understand and recognize the purpose and limitations of these aeronautical publications and use them only as intended. If operations beyond the stated purpose or outside the limitations are undertaken, alternative means of navigation and information need to be employed.

## Feedback

NAV CANADA appreciates your feedback on all our products and, wherever practicable, publications will reflect customer needs and requests.

We kindly ask that you submit all question and/or comments to **service@navcanada.ca**.

### **References:**

*The material contained in this publication is consistent with:*

- 1 **ICAO Annexes and Documents**
  - a Annex 15
  - b Annex 4
- 2 **Transport Canada Documents**
  - a Canadian Aviation Regulations (CARs)
  - b Aeronautical Information Manual (AIM)
- 3 **NAV CANADA Documents**
  - a AIM Aeronautical Publications

# PUBLICATION SPECIFIC FIT FOR PURPOSE INFORMATION

## B1 1:500,000 VFR Navigation Chart (VNC) Series of Maps

### PURPOSE

The VNC series of 52 charts is intended for VFR navigation throughout Canada. It satisfies the requirements of visual air navigation for operations at/or below 12,500 feet ASL.

It provides for:

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

### LIMITATIONS

- 3 **This map series is subject to the following limitations:**
  - 3.1 Due to the scale of this chart (1:500,000), it should not be used for flight in low ceiling and visibility conditions. As a guide, the lowest weather minima established in TC AIM RAC Figure 2.7 is 1000 feet AGL ceiling and 1 mile visibility in uncontrolled airspace; use of the 1:500,000 VNC series in such conditions is not advisable;
  - 3.2 Not all obstacles will be shown – it is impracticable to guarantee all obstacles have been included;
  - 3.3 Not all geographical or aeronautical features can be shown;
  - 3.4 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 (obstructions, restricted and advisory areas, revised control zones, etc.) is initially advertised by NOTAM or AIP Supplement, then published in the CFS and ultimately incorporated in a chart revision; and
  - 3.5 The VNC contains less aeronautical information than the VFR Terminal Area Chart (VTA). Users are therefore asked to use VTA charts where available.

It is essential that users understand the purpose and limitations of this product and use it only as intended.

## B2 1:250,000 VFR Terminal Area Charts (VTA) Series of Maps

### PURPOSE

The VTA series of charts is intended for VFR navigation in the terminal area around seven high traffic areas.

It provides for:

#### 1 Pre-flight planning:

- 1.1 Drawing track lines and using magnetic variation information to determine track in °M;
- 1.2 Map reconnaissance to locate major features (cities, roads, railways, etc.) for lateral navigation; and
- 1.3 Establishing vertical flight profiles with reference to terrain, obstacles and runways.

#### 2 In-flight navigation:

- 2.1 Identifying arrival and departure routes and waypoints;
- 2.2 Determining horizontal position relative to desired track with reference to ground features;
- 2.3 Determining distances, especially to destination;
- 2.4 Determining vertical position relative to obstacles and terrain; and
- 2.5 Identifying control zones, frequencies and airspace boundaries.

### LIMITATIONS

#### 3 This map series is subject to the following limitations:

- 3.1 Due to the scale of this chart (1:250,000), it should not be used for flight in low ceiling and visibility conditions. As a guide, TC AIM RAC establishes weather minima for control zones as 1,000 feet AGL and 3 miles visibility; use of the 1:250,000 VTA series in such conditions is not advisable;
- 3.2 Not all obstructions will be shown – it is impracticable to guarantee all obstructions have been included. In general, only obstructions greater than 300 feet AGL or higher are shown as well as known obstructions lower than 300 feet AGL that are considered significant;
- 3.3 Not all geographical or aeronautical features can be shown; and
- 3.4 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 (obstructions, restricted and advisory areas, revised control zones, etc.) is advertised by NOTAM or AIP Supplement, then published in the CFS and ultimately incorporated in a chart revision.

It is essential that users understand the purpose and limitations of this product and use it only as intended.

## B3 Canada Flight Supplement (CFS)

### PURPOSE

This publication provides detailed IFR and VFR information for Canadian aerodromes as well as selected North Atlantic aerodromes. Associated services and national aviation infrastructure information is also included, organized into the following 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 such as characteristics of airspace, flight restrictions, IFR routes and airway intersections.

**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/ground communications and military training routes/areas.

**Emergency:** Emergency procedures.

This publication is essential for safety and operational effectiveness in both IFR and VFR operations. It should be used for all pre-flight planning and in-flight operations and for emergency procedures.

### LIMITATIONS

The CFS, when used with relevant enroute and terminal publications, completes the total aeronautical information package required for a flight.

The CFS is to be used as a reference for the planning and safe conduct of VFR or IFR air operations. The information contained in the CFS is current only to the effective date. Since CFS information may be amended or cancelled, NOTAMs and AIP Supplements must be consulted to ensure that the most current information is used for flight operations.

The CFS does not contain information about water aerodromes; that information is contained in the Canada Water Aerodrome Supplement (CWAS).



## B4 Canada Water Aerodrome Supplement (CWAS)

### PURPOSE

The *Canada Water Aerodrome Supplement (CWAS)* is published annually in March with English and French versions available. It contains detailed information for all water aerodromes shown on Canadian VFR charts under the following sections:

- a **Special Notices and General**
- b **Aerodrome/Facility Directory**
- c **Planning**
- d **Radio Navigation and Communications**
- e **Emergency**

### LIMITATIONS

The CWAS is to be used as a reference for the planning and safe conduct of VFR or IFR air operations to and from water aerodromes. The information contained in this supplement is current only to the effective date. Since CWAS information may be 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, pilots should also consult a current CFS to ensure that they are aware of all aeronautical information that may impact their flight.**

Note that not all general information contained in the CFS is repeated in the CWAS.

## B5 Canada Air Pilot (CAP)

### **PURPOSE**

This series of seven volumes is updated every 56 days and provides aeronautical information primarily related to the IFR arrival or departure phases of flight and 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.

### **LIMITATIONS**

The CAP is not intended for use in VFR operations.

The CAP is regularly amended by NOTAM and AIP Supplements, especially at high traffic aerodromes. Users must always check NOTAMs for their proposed areas of operation. The CAP procedure pages are necessarily complex.

It is essential that pre-flight study be performed in every case to attain familiarity with each procedure anticipated at destination and alternate. The CAP GEN volume is an integral part of the CAP series. Users must be familiar with the general procedural and terminology material in this publication to safely use the seven core volumes.

## B6 Restricted Canada Air Pilot (RCAP)

### **PURPOSE**

This electronic publication provides aeronautical information related to the arrival or departure phases of flight and comprises the following procedure types:

- Instrument Approach Procedure (IAP)

- Diverse and Standard Instrument Departure (SID)

- Standard Instrument Arrival (STAR)

- Noise Abatement Procedure

It also contains ground operations information in Aerodrome Charts.

### **LIMITATIONS**

**The RCAP is not intended for use in VFR operations.**

**The RCAP does not have an Aerodrome Chart for every airport.**

The RCAP differs from the CAP in that it provides procedures for specific operations and operators that can safely operate using alternative means of achieving safety. Only operators with specific (Ops Spec 099 or 410) authority from Transport Canada can legally fly these procedures because they have been designed with certain deviations from the regulations. These deviations are permitted because special crew training, operational procedures and/or aircraft capability permit.

## B7 Enroute Low Altitude (LO) Chart

### PURPOSE

This chart series provides flight crews with information to facilitate navigation along ATS routes in compliance with air traffic services procedures. It is intended for use in the low level airspace structure (below 18,000 feet ASL).

The LO chart series, comprising 10 charts, depicts aeronautical radio information, airways system, controlled/uncontrolled airspace structure, special use airspace, communication stations and selected aerodromes.

It is used for IFR route planning and inflight navigation.

### 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 ASL.

The information contained on these charts is current only to the effective date. 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.

## B8 Enroute High Altitude (HI) Chart

### PURPOSE

This chart series provides flight crews with information to facilitate navigation along high level airways and routes in compliance with Air Traffic Control procedures. They are intended for use in high level airspace (18,000 feet ASL and above).

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

It is used for IFR route planning and inflight navigation.

### LIMITATIONS

This IFR chart 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 ASL (FL 180) and above.

The information contained on this chart series is current only to effective date. 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.

## B9 Terminal Area Chart (TAC)

### PURPOSE

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.

The TAC depicts aeronautical radio information, airways system, controlled/uncontrolled airspace structure, special use airspace, communication stations and selected aerodromes in congested areas at a larger scale. This information is in addition to what is displayed on the enroute series and instrument procedure charts.

### LIMITATIONS

The eighteen-chart TAC series is for use up to, but not including, 18,000 feet ASL within Canadian Domestic Airspace and that airspace over international waters and foreign territory in which Canada accepts responsibility for the provision of Air Traffic Control services. Charts for the Azores, Bermuda and Iceland (Keflavik) are included for military use.

The set includes these terminal areas:

SIDE 1	SIDE 2
Vancouver/Victoria	Thunder Bay
Edmonton	Windsor
Calgary	Toronto
Saskatoon	Montreal
Winnipeg	Ottawa
Iceland	Quebec
Azores	Moncton
	Halifax
	Gander
	Bermuda
	Keflavik/Iceland

The TAC is revised every 56 days. The information contained on this chart series is current only to the effective date. 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.

## B10 AIP Canada (ICAO)

### **PURPOSE**

The AIP Canada (ICAO) provides an electronic version of general aeronautical data and information. It comprises of:

Part 1 – General (GEN)

Part 2 – Enroute (ENR)

Part 3 – Aerodromes (AD)

Part 4 – AIP Canada (ICAO) Supplements – updated every 28 days

Part 5 – Aeronautical Information Circulars (AIC) – updated every 28 days

The AIP Canada (ICAO) itself is updated every 56 days while the AIP Canada (ICAO) Supplements and Aeronautical Information Circulars (AICs) are updated every 28 days.

### **LIMITATIONS**

The AIP Canada (ICAO) provides only general infrastructure information. The remainder of the required information can be found in the publications. These include the CFS, CAP, RCAP, the HI and LO IFR chart series, as well as the TAC.

Minor editorial changes may be made to the AIP Canada (ICAO) without notice.

## B11 Canadian Airport Charts (airport diagrams)

### **PURPOSE**

NAV CANADA publishes the Canadian Airport Charts on a 56 day cycle. The information in the Canadian Airport Charts provides pictorial displays of Canadian airport manoeuvring areas found in the Canada Air Pilot or the military GPH 200, and may be reproduced for the sole purpose of assisting pilots during aircraft ground movement operations.

The Canadian Airport Charts is available online in PDF format and is free of charge.

### **LIMITATIONS**

Up-to-date information on flight planning procedures and airport services, including fuel, lighting and local prohibitions or procedures can be found in the CFS.

## B12 Aerodrome Obstacle Chart Type A

### **PURPOSE**

The Type A Obstacle Chart, in combination with relevant information published in the AIP Canada (ICAO), provides 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).

These data allow aircraft operators to determine the ability of specific aircraft types under specific conditions, on departure from an airport, to clear obstacles with an engine inoperative. Aerodromes submit survey data to NAV CANADA who in turn makes it available to users as Type A Charts.

Please visit <https://www.navcanada.ca/EN/products-and-services/Pages/aeronautical-information-charts-ICAO-type-a-charts.aspx> for information on the most current charts.

### **LIMITATIONS**

The Type A Obstacle Chart series has been prepared for selected aerodromes for use by operators of large aircraft and provides detailed information with regard to significant obstructions in the approach/departure areas of runways. They are required for operational planning purposes. Only the charts listed on the NAV CANADA website are valid.

The method by which this chart is used to extract the data and the format used to communicate the information to crews is the responsibility of the aircraft operator.

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