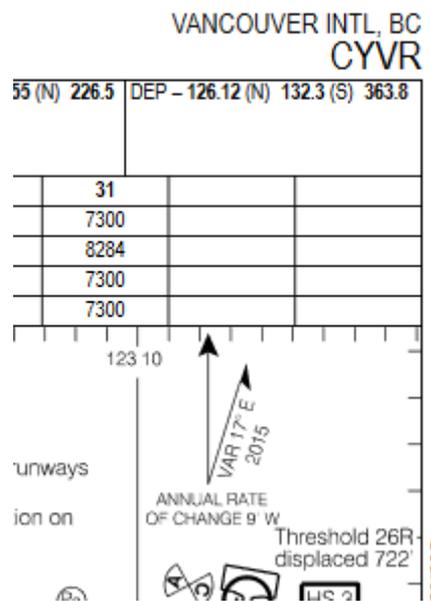


# Vancouver Tower

## Standard Operating Procedures

**Purpose:** This order provides supplemental direction for the Vancouver Tower position (CYVR\_TWR).

**Magnetic Variation:** Winds must be provided to pilots using magnetic headings. METARs are coded using True headings. Each airport's variation is published on the aerodrome chart:



In this example, the variation was 17 degrees East in 2015, changing to the West at a rate of 9 minutes per year. In 2020, that would be  $9 * 5 = 45$  minutes, so in 2020 the variation is 16 degrees 15 minutes East. This can be rounded to 20 degrees East.

East variation is subtracted from a true heading to get a magnetic heading (West variation is added).

Example: C CYVR 12006KT A2991

“Wind 100 at 6”.

**Airspace:** Vancouver airport is a class C airport. The control zone extends to 2500ft ASL and is surrounded by a TCA extending up to 16,000 ft.

**Runway Configurations:** Preferred arrival runway is 08L/26R. Preferred departure runway is 08R/26L. Runway 13/31 must be used if the crosswind component on the main runways exceeds 20 knots. Calm wind runways (5 knots or less) are 26L for departures and 26R for arrivals. Use the actual runway in use as per <https://extranetapps.navcanada.ca/ois/ois.aspx> (or flightradar24) where practicable.

**Departures:** Provide wake turbulence separation between departures. Ensure that the initial separation between aircraft does not decrease due to aircraft performance.

If the SID does not state an altitude to contact departure:

- For jets and turboprops (fast climbers) hand off to "Departure" with the take-off clearance. **Phraseology:**

"Contact <departure/terminal/centre> on <frequency> airborne".

At airports in the FIR that state what altitude to contact Departure, Terminal, or Centre on the SID, simply include the departure frequency with departure. **Phraseology:**

"ACA1234, Wind calm, **departure frequency 133.7**, cleared take off."

Keep lower-performance aircraft (piston props) on your frequency to maintain positive control until clear of traffic in the control zone, then hand off to the terminal/centre. Assign restrictions to altitude, position, and/or direction of travel as and when necessary (do not assign restrictions when there is no other traffic).

The use of 'behind' with 'line up and wait' when clearing an aircraft into the runway should only be used for full-length departures. Do not use 'behind' for intersection departures or behind landing aircraft. **Phraseology:**

"Behind the departing (Aircraft type), line up and wait (Runway)."

**Arrivals:** It is the responsibility of the TCU/ACC to provide the appropriate separation between successive arrivals on final approach. Responsibility for spacing between arriving aircraft is transferred to the Tower once the aircraft crosses the Final Approach Fix (FAF). If using Euroscope in conjunction with FS/FSX/P3D/XP/MSFS2020 to operate a visual tower viewpoint, you may decrease the 3 nm separation of aircraft on final provided both aircraft are in sight. Aircraft conducting visual approaches in accordance with MANOPS section 566 and 567 are responsible for maintaining their own separation. \* Traffic on visual approach will be handed off to Tower once established on any leg of the visual approach prior to entering the control zone.

\*At the time of writing, Visual Approaches are unavailable by NOTAM. However, if an aircraft requests a visual approach, assign it to them traffic-permitting.

**Water Take-Off/Landing:** Within CZVR there are a number of waterways commonly used for landings and takeoffs. A number of them exist within a towered control zone. However, the tower is not responsible for the movements of these aircraft while on the water as in the real world there may be boats and other uncontrolled traffic on the waterway. Therefore, it is the pilot's responsibility to maintain safe separation from other traffic on the waterway during take-off, landing, and taxi. As a result, Take-off and landing

clearances should be provided at the pilot's discretion.

- EX: "G-ABCD, Wind calm, land on the river at your discretion."

**Vancouver Harbour Control Zone:** Landing, take off, and taxi will be at the pilot's discretion. Otherwise, the Harbour tower will provide control within the CZ as up to 2,500.

**ATIS:** Information provided in the ATIS should be restricted to arrival information only. However, event routing is permissible provided the information is brief.

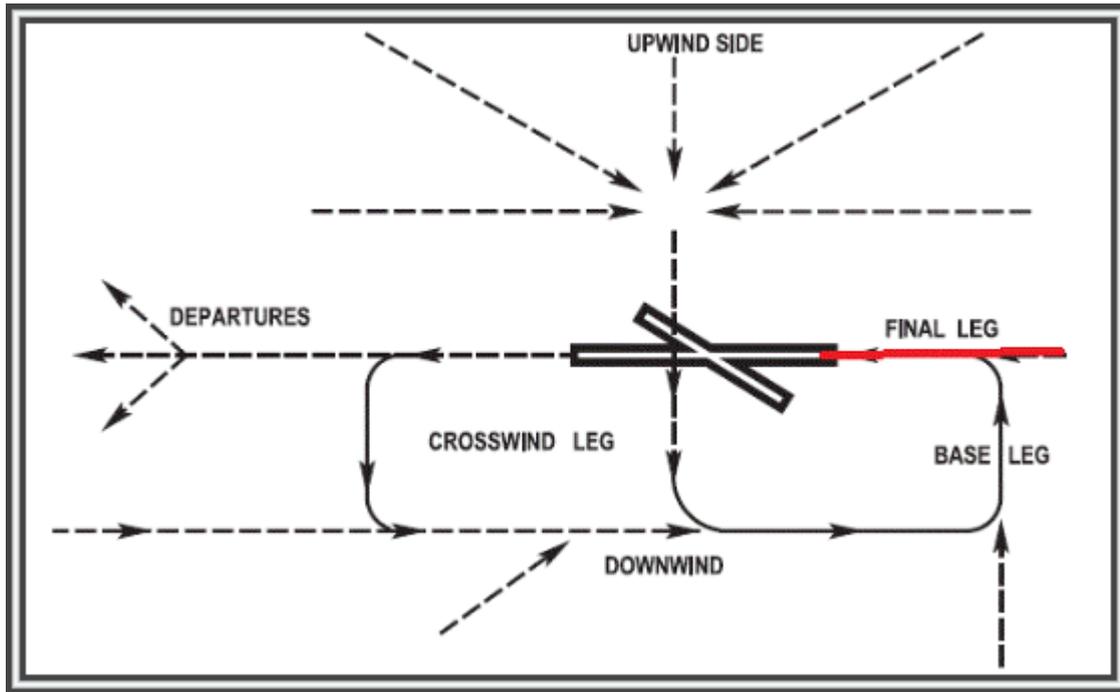
**Taxi Crossing of Runways:** When GND is online, expect them to have aircraft call TWR for permission to cross a runway that you have control of. Have the aircraft hold short or permit them to cross when appropriate. Use the phraseology "FABC, cross 26L then contact Ground 121.70."

## VFR

We encourage VFR in the Vancouver FIR.

**VFR Arrivals:** VFR traffic arriving from Terminal airspace will be transferred to the tower prior to entering the control zone. VFR traffic arriving from under Terminal airspace are expected to report to tower 5 minutes prior to entering the zone, at which point Tower can assign them a squawk code (if needed) and identify them, and then instruct them on how to enter the circuit.

Reference the circuit diagram at <https://www.studyflight.com/circuit/> for possible entries to the circuit at a controlled aerodrome. The dashed lines in the diagram (except for those labelled 'Departures') are valid entries to the circuit:



- <direction> downwind
- <direction> downwind on the 45
- <direction> base
- "straight-in"
- cross <position of the runway> to join the <direction> downwind

Examples:

- C-GABC, enter left downwind, 26L.
- C-GABC, enter right downwind on the 45, 08R.
- C-GABC, enter right base, 08R.
- C-GABC, make straight-in, 26R.
- C-GABC, cross the threshold 08R and join left downwind 26L. Or
- G-GABC, cross mid-field and join right downwind 08R.

**Position Reports:** At Controlled aerodromes, do not request an aircraft to report at a position, such as, report final, report base, or report downwind. Your scope should be used to track the status of the aircraft at all times. In some cases, terminal/enroute controllers may provide partial control at towered aerodromes due to heavy traffic in the terminal/enroute environment(s), and may request position reports so that they don't have to monitor the tower environment temporarily. But it is not used at controlled aerodromes by TWR controllers.

**VFR Circuits:** At controlled aerodromes, pilots are expected to report to the controller on the downwind leg with their intentions. "Call me midfield downwind" is not required at any time. This phrase should only be used if a pilot repeatedly omits the report.

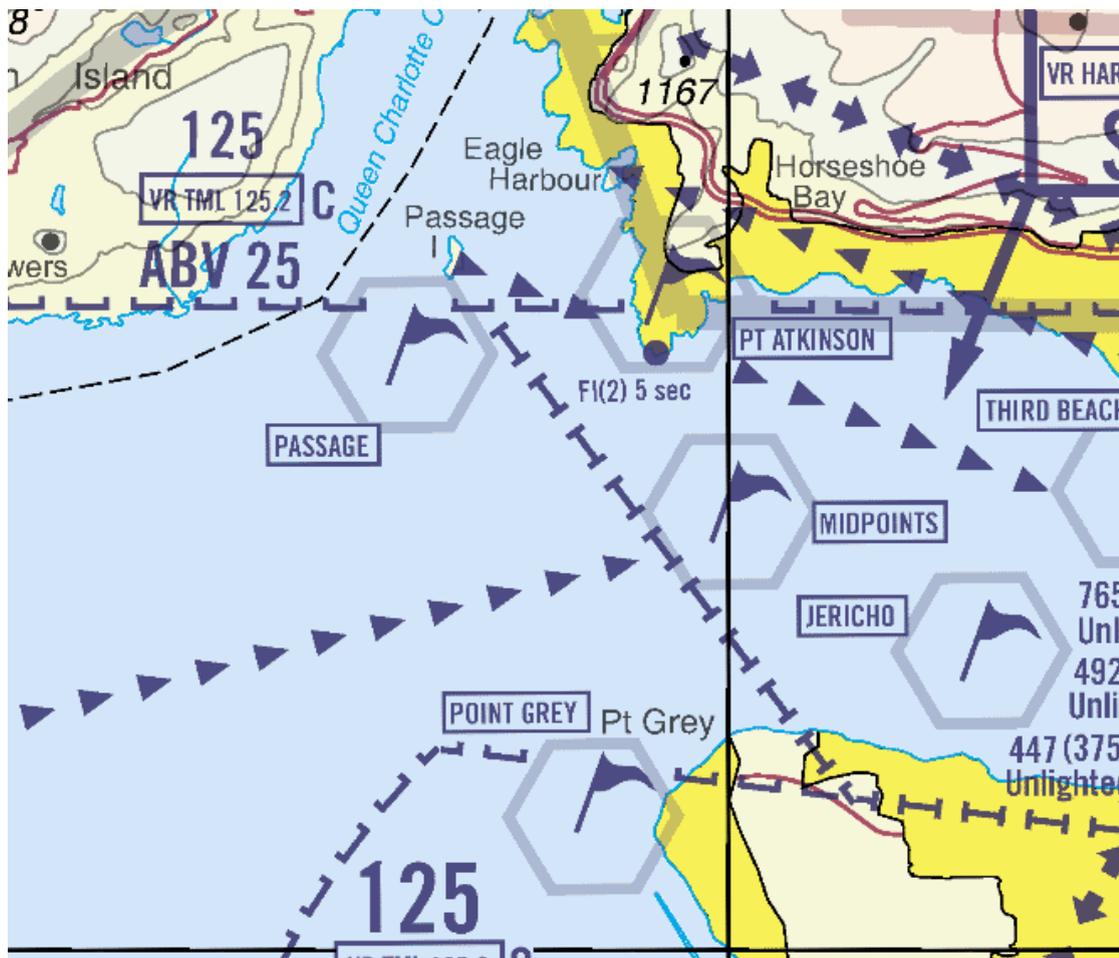
**VFR Departures:** Apply departure restrictions when required to maintain separation from IFR traffic.

**Flight Following:** If a pilot would like flight following use the code "FF" in the scratchpad to notify other controllers.

**Handling VFR During Times of Heavy Traffic:** During times of heavy traffic it may take some time to sequence departures amongst IFR arrivals. In this case, departures will not be granted intersection departures. This includes light aircraft with STOL capabilities. All aircraft will instead be sequenced with all other departures in the order that they arrive in the taxi queue to the departure runway.

This order can be modified in order to expedite departures. For instance, wake turbulence times can be reduced to fit within an event departure wait time requirement by sequencing event IFR lights behind event IFR mediums and event IFR mediums behind event IFR heavies (where appropriate) so that the wake turbulence separation time does not exceed the wait time required to support the event. Although wake turbulence separation applies to VFR aircraft, IFR separation wait times for a departure to a specific airfield do NOT apply to VFR aircraft. If a VFR event departure can be accomplished between successive IFR event departures, sequence it there where possible.

To keep VFR traffic out of the way of subsequent IFR departures, assign them a turn on takeoff together with an altitude restriction to keep them clear of terminal airspace until the controller on terminal has capacity to work them. For example, in the vicinity of the PASSAGE VFR waypoint (see diagram below), restrict the aircraft to 2,500' or lower. If Terminal cannot work the aircraft, release them to enroute frequencies with the restriction when they leave the Tower control zone.



If Terminal does not have the capacity to provide flight following, do not suggest to pilots that flight following may be available since suggesting it may result in the aircraft requesting it and then being denied, further tying up the terminal frequency.

Although you may warn VFR traffic that there may be delays, and you may advise them that intersection departures may be denied, you may **not** deny VFR traffic.

Subject	Authorized	Date
Added clarification for when to contact departure outside CYVR, clarification of the use of line up and wait.		May 5, 2021
Departure handoff revision	Brad Crockett	May 1, 2021
Taxi Crossing of Runways, revised ATIS	Brad Crockett	February 17, 2021
Position reports	Brad Crockett	January 30, 2021
Flight Following, Water take-off and landing	Brad Crockett	January 24, 2021
ATIS, VFR departures in heavy traffic	Brad Crockett	January 14, 2021
Circuit, departure	Brad Crockett	November 4, 2020
Magnetic variation	Brad Crockett	April 25, 2020
Initial	Brad Crockett	January 08, 2020