

# Vancouver International Airport AIRSIDE TRAFFIC DIRECTIVES

June 15 2019



Superintendent, Airside Vehicle Operations  
VANCOUVER AIRPORT AUTHORITY, RICHMOND, BC  
AVOP TELEPHONE 604.276.6774 EMAIL [avop@yvr.ca](mailto:avop@yvr.ca)





## Copyright Notice

This document is published under the direction of Vancouver Airport Authority and is considered to contain intellectual and proprietary information.

© 2019 Vancouver Airport Authority, also known as the Airport Authority.

All rights reserved. No part of this document may be reproduced, transmitted, transcribed, stored in any electronic form, or translated into any language, without the written consent of the owner. Any unauthorized reproduction or transmission in whole or in part is strictly prohibited and may result in criminal or civil liability. Pursuant to the foregoing, the Vancouver Airport Authority authorizes all or portions of this document to be photocopied, reproduced or distributed specifically in connection with initial or recurring training for airside operations at Vancouver International Airport, provided that any such use includes an acknowledgement of Vancouver Airport Authority's ownership of and rights to the subject material.

For information about the *Airside Traffic Directives*, please contact:

Superintendent, Airside Vehicle Operations  
PO Box 23750, Airport Postal Outlet  
Vancouver Airport Authority  
Richmond, BC V7B 1Y7  
Phone: 604.276.6774  
Email: [avop@yvr.ca](mailto:avop@yvr.ca)

## Directives Revision

The Office of Primary Interest (OPI) for the *Airside Traffic Directives* is the Superintendent, Airside Vehicle Operations. The OPI is responsible for establishing, administering, and maintaining the directives.

This document will be reviewed annually and revised, as required, to reflect changes in legal requirements and safety practices.

# Table of Contents

---

|   |           |
|---|-----------|
| Copyright Notice .....                                  | 2         |
| Directives Revision .....                               | 2         |
| <b>Introduction .....</b>                               | <b>5</b>  |
| Directive Objectives .....                              | 5         |
| Guidelines and Regulations.....                         | 5         |
| <b>Provincial and Federal Statutes.....</b>             | <b>6</b>  |
| Airport Traffic Regulations .....                       | 6         |
| Motor Vehicle Act and Criminal Code of Canada.....      | 6         |
| Canada Labour Code .....                                | 7         |
| Canadian Aviation Regulations .....                     | 7         |
| <b>Employer Commitments .....</b>                       | <b>8</b>  |
| Applicant Training/ Re-Current.....                     | 8         |
| <b>AVOP Application Process.....</b>                    | <b>9</b>  |
| Restricted Area Identification Card.....                | 9         |
| Airside Vehicle Operator’s Permit.....                  | 9         |
| AVOP Designations .....                                 | 10        |
| Multi-Employer AVOP.....                                | 10        |
| AVOP Designations for Contractors – See Appendix A..... | 10        |
| AVOP for Rehired or Seasonal Employees.....             | 10        |
| <b>Training &amp; Testing .....</b>                     | <b>12</b> |
| Knowledge Test.....                                     | 12        |
| Practical Driving Test.....                             | 12        |
| Retesting.....  | 12        |
| Company Trainer/Examiner Certification .....            | 13        |
| Training Records .....                                  | 13        |
| Company Trainer/Examiner Violations .....               | 14        |
| <b>Enforcement &amp; Violations .....</b>               | <b>15</b> |
| Enforcement Personnel.....                              | 15        |
| Operator Cooperation and Compliance.....                | 15        |
| Violations .....  | 16        |
| Suspension of AVOP Privileges .....                     | 20        |
| Suspension of Restricted Area Identification Card.....  | 22        |
| Violation Notice Reviews and Appeals .....              | 22        |
| <b>General Rules .....</b>                              | <b>25</b> |
| Airside Prohibitions .....                              | 25        |
| Individuals without Vehicles - Pedestrians .....        | 26        |
| Rules for Vehicle Operations.....                       | 26        |
| Right-of-Way.....                                       | 27        |
| Traffic Signs and Markings .....                        | 27        |
| Speed Limits .....                                      | 27        |
| Vehicle Corridors .....                                 | 28        |
| Vehicle Gate Access (SECURITY).....                     | 29        |
| Fuelling and Servicing Operations.....                  | 29        |



|   |           |
|---|-----------|
| Anti-idling .....                                     | 30        |
| Parking / Unattended Vehicles .....                   | 31        |
| Special Areas.....                                    | 31        |
| Traffic Accidents .....                               | 34        |
| Environmental Incidents .....                         | 34        |
| FOD – Foreign Object Debris/Damage .....              | 35        |
| Towing .....  | 36        |
| Cargo Handling.....                                   | 37        |
| Golf Carts.....                                       | 37        |
| Helipads.....   | 38        |
| <b>Aprons – Taxiways - Runways.....</b>               | <b>39</b> |
| Key Terms .....                                       | 39        |
| Taxiways.....   | 39        |
| Signs, Lighting, Lines, and Markings.....             | 40        |
| Runways.....  | 43        |
| Aprons .....  | 45        |
| Markings .....  | 46        |
| Safety Cones and Wheel Chocks.....                    | 49        |
| Airside Roads .....                                   | 49        |
| Vehicle Corridors .....                               | 49        |
| <b>Airport South Operations .....</b>                 | <b>50</b> |
| Apron I and Apron II .....                            | 50        |
| South Perimeter Road .....                            | 51        |
| Taxiway Charlie (C) .....                             | 51        |
| Beaching Gear Vehicles .....                          | 52        |
| Helicopter Operations .....                           | 52        |
| <b>Weather .....</b>                                  | <b>53</b> |
| Reduced and Low Visibility Operations .....           | 53        |
| Thunder and Lightning (Red Alerts) .....              | 55        |
| Freezing Conditions.....                              | 56        |
| <b>Manoeuvring Area Operations .....</b>              | <b>57</b> |
| Operating Rules.....                                  | 57        |
| Vehicle Breakdown and Equipment Failures.....         | 59        |
| Driver Disorientation .....                           | 60        |
| ILS Sensitive and Critical Areas .....                | 60        |
| Temporary Route Closed Barriers.....                  | 61        |
| Marking of Vehicles in Controlled Area .....          | 61        |
| Driving on Manoeuvring Area .....                     | 62        |
| <b>Appendices .....</b>                               | <b>63</b> |
| Appendix A: Special Permits and Permissions .....     | 63        |
| Appendix B: Escorting Procedures .....                | 64        |
| Appendix C: Mobile Equipment .....                    | 66        |
| Appendix D: Vehicle Requirements.....                 | 67        |
| Appendix E: Radio Procedures .....                    | 70        |
| Appendix F: Glossary of Terms and Abbreviations ..... | 75        |
| Appendix G: Radio Frequencies and Phone Numbers ..... | 79        |
| Appendix H: Training Maps .....                       | 80        |
| Appendix I: AVOP Application .....                    | 86        |
| Appendix J: Study Guide .....                         | 88        |
| <b>Index.....</b>                                     | <b>96</b> |

# Introduction

---

Welcome to the YVR *Airside Traffic Directives* (ATDs). As a vehicle operator at an airport, you face conditions that are not normally encountered on public streets and highways. These directives provide the knowledge of airport rules and regulations that you need to be qualified and authorized to operate in this unique environment.

## Directive Objectives

The main objectives of the ATDs are to:

- Promote and enhance airside safety.
- Establish the rules by which vehicles and equipment operating airside at Vancouver International Airport (YVR) must be operated, equipped, and marked.
- Ensure cooperation and coordination between personnel representing Vancouver Airport Authority and other agencies, organizations, or companies.
- Serve as a reference and training tool for airside vehicle operators.

NOTE: You must read the current edition of these ATDs and fully and clearly understand your responsibilities for airside vehicle operation. You are expected to interpret them reasonably and responsibly and in the best interest of aviation safety and security at all times.

## Guidelines and Regulations

The ATDs for YVR have been developed to mirror the Canadian Airports Council *National Minimum Training Guidelines*

The AVOP (Airside Vehicle Operations) program is administered in accordance with all applicable federal and provincial regulations, including the following:

- *Aeronautics Act*
- *Canadian Aviation Regulations*
- *Aerodrome Standards and Recommended Practices TP312*
- *BC Motor Vehicle Act*
- *Criminal Code of Canada*
- *Canada Labour Code*
- *Airport Traffic Regulations*



# Provincial and Federal Statutes

---

Airside motor vehicle operation is regulated both by provincial and federal statutes.

## Airport Traffic Regulations

Section 14(b) of the *Airport Traffic Regulations*<sup>1</sup> provides that **no** person may operate a vehicle in a “restricted area” (all of airside) without a “valid identification” (a valid Airside Vehicle Operations Permit).

The maximum penalty for operating a vehicle airside without a “valid identification” is \$500 and 6 months’ imprisonment<sup>2</sup>. In addition to the potential for prosecution under the *Airport Traffic Regulations*, driving a motor vehicle airside without a valid AVOP will result in all of the following:

- Immediate temporary suspension of security clearance, including confiscation of Restricted Area Identification Card (RAIC)
- Ineligibility period of 365 days for any application for an AVOP
- An “AVOP violation” with corresponding AVOP and RAIC suspensions<sup>3</sup>

## Motor Vehicle Act and Criminal Code of Canada

To maintain a valid AVOP, all airside driving rules must be followed. In addition, as airside aprons and roadways are “private road” “highways,” a number of provisions of the *Motor Vehicle Act* (BC)<sup>4</sup> and all provisions relating to motor vehicles in the *Criminal Code of Canada* apply to the airside operation of motor vehicles.

To operate a motor vehicle airside:

1. You must hold the correct class of AVOP (and display it on your RAIC) for operation of a motor vehicle in the relevant airside area.
2. You must abide by any restrictions relevant to both your RAIC and the class of AVOP you hold.
3. You must hold a valid licence to drive that type and class of vehicle<sup>5</sup>.

---

<sup>1</sup> *Airport Traffic Regulations*, CRC, c886, enacted pursuant to the *Government Property Traffic Act*, RSC 1985, c G-6

<sup>2</sup> *Airport Traffic Regulations*, Section 39

<sup>3</sup> See Section Violations, for more information.

<sup>4</sup> The *Motor Vehicle Act* (BC) Section 2(9) provides that only Sections 95, 102, and 144 of the *Motor Vehicle Act* (BC) may be enforced against industrial users of private road highways.

<sup>5</sup> Although the penalty provisions for not holding the right class of license under the *Motor Vehicle Act* (BC) do not apply on private roads,

4. You must not operate any vehicle airside when subject to any driving suspension / prohibition or period of disqualification under the *Motor Vehicle Act* (BC) or *Criminal Code of Canada*.

All four of these requirements must be met to have a “valid AVOP.”

While operating a motor vehicle airside:

- You must know, follow, and comply with all ATDs as set out and modified from time to time by the Airport Authority that relate to the class of AVOP you hold and the airside location of motor vehicle operation.
- You must meet the minimum standards of driver care set out in Section 144 of the *Motor Vehicle Act* (BC).
- You must not commit any criminal act of driving contrary to the *Criminal Code of Canada*.

## Canada Labour Code

### Section 1.1.2

- Operators must wear personal protection equipment, such as seatbelts and hearing protection, in accordance with the *Canada Labour Code*, *Canada occupational Health and Safety Regulations*, manufacturers operating manual, and/or any other applicable legislation and workplace safety guidelines

## Canadian Aviation Regulations

In addition, the *Canadian Aviation Regulations* make it a federal regulatory offence to:

- Walk, stand, drive, or park a vehicle in a manner that causes an obstruction on the movement area of an airport, except with the appropriate permissions of the Airport Authority<sup>6</sup>
- Smoke or display an open flame in an area where smoking or having an open flame is likely to create a fire hazard<sup>7</sup>

**IMPORTANT:** AVOP trainees may operate a vehicle when a fully licensed operator is present and supervising the trainee. All other rules of the ATDs apply. For the purpose of enforcement, the trainer operator is accountable for all the trainee’s actions.

---

Section 2(10) of the *Motor Vehicle Act* (BC) states that the operator must still have the right class of license to operate a vehicle on a private road. Driving without the correct class of license leads to insurance complications, in the event of an accident.

<sup>6</sup> Section 302.10 of the *Canadian Aviation Regulations* SOR/96-433, enacted pursuant to the *Aeronautics Act* R.S.C., 1985, c. A-2

<sup>7</sup> Section 302.11 of the *Canadian Aviation Regulations* SOR/96-433, enacted pursuant to the *Aeronautics Act* R.S.C., 1985, c. A-2



# Employer Commitments

---

## Applicant Training/ Re-Current

Employers are responsible to provide minimum training to AVOP applicants.

Applicants must:

- Understand all airport rules and regulations and these *Airside Traffic Directives*
- Have an AVOP and a valid driver's licence in BC for the class of vehicle being operated, and must be fully trained and in compliance with their company policy.
- Understand safety considerations while operating the equipment in airside areas
- Must be certified (certification by a supervisor) on each type of equipment to be operated
- Receive AVOP Bulletins regarding changes in airside driving rules or the airside environment from their employer.
- Understand that it is considered a Gross Misconduct violation for an employer to knowingly encourage, direct, or permit another person to operate a motor vehicle airside in breach of a requirement for a valid AVOP
- Understand that a suspension letter will be sent to the employer of the operator, setting out the nature of the violation, the AVOP violation points assessed, and the effective dates of the suspension of the operator's AVOP privileges. The employer must forward a copy of the suspension letter to the operator and assist in co-ordinating the removal of the operator's AVOP designation with the AVOP Office for the duration of the suspension.
- Understand that prior to an employer allowing an operator to take a practical driving test, applicants must receive operator familiarization training under the direct supervision of a trainer. This training involves driving in the areas where they will be authorized to operate a vehicle. The trainer must certify to Airside Vehicle Operations that applicants have received this training.

---

REMEMBER: All training material for the tests, including airfield maps for study purposes (see *Appendix H: Training Maps*), are to be supplied by the applicant's employer. Originals of the maps and any other documents needed for training can be requested from the AVOP Office

---



# AVOP Application Process

---

## Restricted Area Identification Card

All airside areas are restricted areas. These areas are normally designated by a security gate and/or signage, and entry is restricted to individuals authorized by the Airport Authority.

To enter a restricted area, employees must display a **Restricted Area Identification Card (RAIC)** or be accompanied by an airside escort. A RAIC gives you access to a specific restricted area during a specified period. You must display it at all times when airside. If you also have one of the valid AVOP designations described below, the letters "D/A" or "D" will be printed on the RAIC or a face card. The AVOP designation is NOT VALID unless the designation has been added and printed on your RAIC or face card. In other words - having completed the AVOP exam does not authorize you to drive airside until the designation has been printed on your RAIC.

## Vancouver Airport Authority AVOP Office

Vancouver Airport Authority AVOP Office is located at the Access Control Office DTB Level 1  
Phone: 604.276.6774. Email: [avop@yvr.ca](mailto:avop@yvr.ca)

## Airside Vehicle Operator's Permit

To operate equipment/vehicles in airside areas at YVR, you must hold an **Airside Vehicle Operator's Permit (AVOP)**. To qualify for an AVOP, you must demonstrate all of the following:

- Business requirement to obtain an AVOP designation
- Hold a valid BC Driver's License (Class 7N or Class 5 or higher) or equivalent Canadian provincial or territorial or US State driver's licenses only.
- Thorough knowledge of the ATDs relevant to the type of AVOP designation
- Competency driving airside through **both a knowledge and practical test**

At the time of application, the driver's licence must be presented to the Access Control Office for verification. A BC Class 7 L learner's (L) licence or its equivalents from other provinces, territories, or states is **not** acceptable.

All statutory restrictions that are in place for a particular class of licence, or for the individual driver, must be adhered to. Any revocation, suspension, or infraction of a driver's licence that impairs, restricts, suspends, or revokes an individual's ability to operate a motor vehicle constitutes a restriction, suspension, or revocation of an equivalent period of time of an AVOP.

An AVOP designation will not be applied to a RAIC without verification of up-to-date qualifications.

---

**REMEMBER:** All driver's licence revocations, suspensions, and infractions must be immediately reported to the AVOP office.

---



## AVOP Designations

There are four types of AVOP designations issued:

- D AVOP:** You need this permit to enter the manoeuvring area of the airport. In addition, you must have a valid Aeronautical Radio Operator's Certificate issued through Industry Canada. The D AVOP expires 3 years from the date of issuance.
- D/A AVOP:** You need this permit to operate equipment on the aprons and other uncontrolled areas of the airport. D/A AVOPs expire with your RAIC unless you have been tested within one year of that date.
- D/A Green AVOP:** This permit is similar to the D/A AVOP, but limits you to areas covered by the South Airport RAIC. D/A AVOPs expire with your RAIC unless you have been tested within one year of that date.
- Free-Range Endorsement:** You need this permit, along with a D AVOP designation to operate on the manoeuvring area of the airport with free range, as deemed necessary by the Superintendent. Free-Range AVOPs expires 1 year from the date of issuance and must be renewed annually along with the D AVOP.

---

**IMPORTANT:** The Airport Authority does not advise holders of the upcoming expiry of an AVOP. Holders are responsible for ensuring that retesting is completed before the expiry date. Airside Vehicle Operations must be contacted to book an appointment for retesting.

---

## Multi-Employer AVOP

An AVOP with one company **does not** automatically entitle the holder to drive airside with another company.

An additional AVOP request for work with another employer requires the following:

- Submit an application form the new employer
- If no violations have occurred in last 6 months and the last knowledge test was administered by the YVR AVOP Department, the AVOP designation can be transferred between companies.

## AVOP Designations for Contractors – See Appendix A

### AVOP for Rehired or Seasonal Employees

An employee who leaves a company but is rehired within 3 months with the **same company** may apply for restoration of their AVOP subject to:

- Completion of a new application form.

- If no violations were received in the last 6 months of the applicant's previous employment, the knowledge test and practical driving test will not be required.

An applicant who requests an AVOP after the 3-month time frame must complete both the knowledge and practical test.



# Training & Testing

---

All applicants must complete both knowledge and practical tests. D/A and D knowledge testing is completed by the Vancouver Airport Authority AVOP Department.

D/A AVOP practical testing is completed by an approved company examiner or the Vancouver Airport Authority AVOP Department.

All D AVOP testing is completed by Vancouver Airport Authority AVOP Department.

## Knowledge Test

- The knowledge test is completed at the YVR AVOP Office.
- This test consists of at least 25 multiple-choice and true-false questions. No study aids or notes are permitted during the test. Applicants must achieve a grade of 88% or greater.
- As part of the knowledge test, the applicant must also correctly label runways, taxiways, aprons, and roadways on a map with zero errors.

## Practical Driving Test

- If the applicant passes the knowledge test, this is followed by a practical driving test under the supervision of the YVR AVOP examiner or an approved company examiner. All examiners must, at a minimum, use the YVR AVOP practical exam checklist.

NOTE: If designated by the Superintendent, testing for a D/A AVOP can be administered by your employer through a certified examiner. If your employer is not authorized then all testing must be completed through the YVR AVOP Department.

## Retesting

For either knowledge or driving examinations, applicants who fail must wait the following time periods before retesting:

- Failed first attempt: wait 7 days
- Failed second attempt: wait 30 days
- Failed third attempt: wait 1 year.

If employees with an AVOP designation fail the retest for the same employer or for an additional employer:

- They must book the retest for the following calendar week. If unable, the AVOP designation will be removed until they pass the applicable tests.

- If they fail to attend their testing appointment the following week, their RAIC will be deactivated until they pass the YVR AVOP written and practical tests or have the AVOP designation removed from their RAIC.
- If they fail a second time, AVOP designations for all applicable companies will be removed.

**‘No show’ for written or driving exam:** Individuals who cannot make a scheduled test time are asked to notify the AVOP office a minimum of 24 hours in advance of any cancellation. There is a minimum 7 day wait period for rebooking.

## Company Trainer/Examiner Certification

Individuals wishing to apply for trainer or trainer/examiner certification must hold a valid D or D/A AVOP and submit an application with Airside Vehicle Operations, signed by the employer, seeking authorization to act as a company representative.

To obtain certification, the applicant must provide the following:

- For training certification: a training syllabus outlining the topics included in training
- For practical examiner certification: a testing checklist will be provided by the AVOP Office

Trainer/examiner certification remains current only as long as the trainer’s RAIC and AVOP are valid.

New trainers and examiners will be assessed by the AVOP Department. All recurrent tests must be taken with the YVR AVOP Department.

---

**IMPORTANT:** Examiners are not subject to receiving an AVOP violation that would be made against the AVOP applicant during a practical exam. Any applicant given an AVOP violation during an exam will automatically fail the practical exam.

---

## Training Records

---

**IMPORTANT:** Company trainers and examiners are responsible for ensuring that records are maintained for all company employees who hold an AVOP.

---

For each individual, the records must include, at a minimum, the following:

- Types and dates of training provided, including initial training, on-going training, and refresher courses
- Dates and copies of examinations

These records must be made available to authorized Airport Authority and Transport Canada personnel upon request.



## Company Trainer/Examiner Violations

**IMPORTANT:** Trainers and examiners who receive an AVOP violation will immediately have their trainer /examiner certifications revoked and are subject to the appropriate penalties under the ATDs against their AVOP.

Trainers/examiners can re-apply for trainer /examiner status 6 months after the date of violation or after their penalty has been served. As well, they must successfully re-test with the AVOP office before the certification can be reinstated.

All trainers are accountable for the driving of an applicant under their supervision, and are subject to receiving an AVOP violation that would be made against the AVOP applicant.

It is a gross misconduct violation for a trainer to knowingly permit an AVOP applicant to drive without direct supervision.

# Enforcement & Violations

---

## Enforcement Personnel

Enforcement of ATDs is carried out with safety as the primary goal. Enforcement personnel include:

- Airport Operations staff
- Airport Security staff
- RCMP
- Other Airport Authority personnel as designated by the Director, Airside Operations

Enforcement personnel have the authority to:

- Issue directions or commands that must be followed by operators of motor vehicles
- Inspect motor vehicles and operators to ensure compliance with the ATDs and all applicable regulations and standards
- Issue *Violation Notices* to operators of motor vehicles or pedestrians found in non-compliance with the ATDs and/or vehicle standards.

In addition, members of the RCMP have the authority to stop and investigate drivers for *Motor Vehicle Act* and *Criminal Code* violations that occur while driving airside. Members of the RCMP are familiar with the requirements of the ATDs and can stop an operator for an ATD breach.

## Operator Cooperation and Compliance

Enforcement personnel may set up airside checkpoints to stop driver's airside and inspect motor vehicles and operators to ensure compliance with ATDs.

Individuals must cooperate with enforcement personnel acting in the course of their duties. Unless unsafe to do so, all individuals must immediately comply with any instruction given by enforcement personnel.

Verbal abuse, threatening behaviour, or assaults to enforcement personnel will not be tolerated. These are Gross Misconduct violations and are potentially conduct contrary to the *Criminal Code of Canada*, which may be reported to the RCMP for prosecution.

Enforcement personnel will deal immediately with any situation that compromises or threatens to compromise airside safety. When there is reasonable doubt at any time about an AVOP holder's knowledge or ability to operate a vehicle in a consistently safe manner, necessary action to ensure compliance may be taken by the enforcement personnel. The Superintendent Airside Vehicle Operations may at any time with or without cause require an AVOP holder to retake both the written and practical tests to demonstrate their competency to operate a vehicle airside.

**IMPORTANT:** Individuals must not interfere, directly or indirectly, with personnel authorized to enforce the ATDs. Verbal abuse or threats of any kind will not be tolerated and will be subject to a Gross Misconduct violation. Individuals are required to follow the instructions of enforcement personnel as long as it is safe. Individuals are required to surrender their RAIC/AVOP when requested by enforcement personnel.

## Violations

If enforcement personnel conclude that it is more likely than not that an operator of a motor vehicle has failed to follow the ATDs, or has committed any other AVOP violation, they will issue a *Violation Notice*.

All *Violation Notices* are effective immediately subject to review or appeal (see Section, [AVOP Suspensions and Appeals](#)).

AVOP violations are not applied to an AVOP Holder's provincial driver's licence.

## Violation Classes and Points

There are four classes of AVOP violations, as well as gross misconduct violations. Each class of AVOP violation results in a different number of AVOP violation points, as listed in the table below. An accumulation of AVOP violation points results in varying periods of suspension of an individual's AVOP driving privileges.

| Violation Class  | Points    |
|------------------|-----------|
| Gross misconduct | 15 points |
| Class A          | 9 points  |
| Class B          | 6 points  |
| Class C          | 3 points  |
| Class D          | 2 points  |

The following table lists AVOP violations.

| Driving Without an AVOP  |
|--|
| <p>Operating a motor vehicle airside without a valid AVOP, with knowledge that one or more of the AVOP requirements is not satisfied (Note: not knowing the requirements for a valid AVOP is <b>not</b> an excuse).</p> <p>Individuals caught driving without an AVOP designation will receive the following:</p> <ul style="list-style-type: none"> <li>- Immediate 24 hour suspension of all RAIC privileges.</li> <li>- Airside access privileges will be revoked and a terminal access only RAIC issued, for a period of 15 days.</li> <li>- Airside driving privileges revoked for a period of <b><u>12 months</u></b></li> </ul> |



|  |
|--|
| <b>Gross misconduct violations: 15 points</b>  |
| Knowingly encouraging, directing, or permitting another person to operate a motor vehicle airside in breach of a requirement for a valid AVOP  |
| Operating a motor vehicle airside without valid third-party liability insurance coverage in the minimum amount required by the Airport Authority for the type of vehicle   |
| Operating a motor vehicle in a manner that a reasonable person would consider likely to endanger the life of other persons, considering all of the circumstances   |
| Operating a motor vehicle airside while the operator's ability to drive is negatively impacted by the effects of alcohol or drugs (including prescription drugs) on the operator.  |
| Operating a motor vehicle with <b>any</b> amount of alcohol or non-prescription drugs in the operator's blood system (for clarity: any odour of drugs or alcohol emanating from an operator is sufficient proof for this violation)              |
| Making an unauthorized entry on to a runway  |
| Operating a motor vehicle airside that is not licensed in accordance with the laws of British Columbia applicable to the type of vehicle   |
| Knowingly allowing an AVOP applicant to drive without direct supervision by an AVOP holder   |
| Driving with an "Escort Required" RAIC or block pass without the appropriate security escort   |
| Disobeying the instructions of Air Traffic Control   |
| Disobeying, interfering with, threatening or assaulting enforcement personnel  |
| <b>Class A violations: 9 points</b>  |
| Operating a motor vehicle airside at more than twice the speed limit   |
| Operating a motor vehicle without exercising due care and attention or reasonable consideration for other persons or property, considering all of the circumstances (examples: excessive speeding, tailgating)                                   |
| Making an unauthorized entry on to a controlled taxiway  |
| Performing an unauthorized engine run-up   |
| Failing to stop or follow any instruction made by enforcement personnel (examples: failing to stop on command, failing to surrender RAIC or AVOP on demand, refusing to cooperate with enforcement personnel in the performance of their duties) |
| Operating a motor vehicle in an area not permitted under the operator's AVOP licence   |
| <b>Class B violations: 6 points</b>  |
| Failing to yield to and/or overtaking an aircraft under power or being towed   |
| Having been involved in an accident or having witnessed an accident, failing to follow the correct procedures for assisting injured persons, or reporting the accident as required   |



|  |
|--|
| Failing either to immediately report an unserviceable vehicle on a vehicle route or movement area to Airport Operations, or to take steps to have the unserviceable vehicle immediately removed  |
| Driving a motor vehicle under an aircraft wings or tail unless actively servicing that aircraft  |
| Driving a motor vehicle between enplaning or deplaning passengers and their gate or aircraft   |
| Driving a motor vehicle between an aircraft and the person marshalling that aircraft   |
| Leaving a vehicle or equipment unattended on a vehicle route or movement area  |
| Using any personal / electronic device, including mobile phones or iPods, or wearing ear buds  |
| Driving at a speed that is excessive relative to the traffic, visibility, or weather conditions  |
| Following too close to a vehicle ahead (ie: tailgating), as to create a hazard to the vehicle operators or passengers  |
| <b>Class C violations: 3 points</b>  |
| Carrying passengers in excess of the number of licensed seats in the vehicle   |
| Knowingly depositing, creating, or failing to pick up FOD  |
| Driving in excess of the posted speed limit  |
| Failing to obey stop, yield, parking, or other signs, signals, or markings   |
| Driving under a passenger loading bridge, except in a vehicle corridor   |
| Failing to follow a vehicle corridor   |
| Failing to yield to: <ul style="list-style-type: none"><li>- Emergency vehicle with activated emergency lights</li><li>- Snow removal or apron sweeping equipment</li><li>- Fuel tanker</li><li>- Airfield maintenance equipment i.e. Grass cutters</li><li>- Passenger loading buses</li><li>- Vehicles exiting controlled surfaces</li></ul>                   |
| Operating a vehicle within 7.5 m (25 ft) of an aircraft when not engaged in servicing that aircraft  |
| Driving over hoses or cables   |
| Parking a vehicle behind a vehicle involved in fuelling  |
| Driving an unauthorized vehicle in the ITB tug tunnel  |
| Leaving a fuelling vehicle, including a propane tanker, unattended   |
| While driving on the apron: <ul style="list-style-type: none"><li>- Failing to stop a vehicle at all tail clearance and yield lines until safe to proceed</li><li>- Failing to yield right of way</li><li>- Operating a fuel tanker including a propane tanker, in a tunnel, underpass, head-of-stand corridor, or within 15 m (50 ft) of any building</li></ul> |

|   |
|---|
| <p>Refuelling:</p> <ul style="list-style-type: none"> <li>- Within 4.5 m (15 ft) of a source of ignition</li> <li>- Within 7.5 m (25 ft) of an aircraft</li> <li>- Inside any building or enclosed structure</li> <li>- Outside of areas designated by the Airport Authority</li> </ul> |
| Using telephones or radios in the immediate area where refuelling is taking place   |
| Failing to use marked pedestrian corridors when crossing an apron   |
| Performing an authorized run-up at a heading different from what was specified  |
| Failure to immediately report a spill of hazardous materials or unknown substances to Airport Operations  |
| Driving a golf cart in an unauthorized location   |
| Towing a trailer without securing safety devices or in an unsafe manner causing loss of cargo   |
| Failing to adequately secure loads  |
| Operating a motorcycle, moped, or motorized bicycle   |
| Failing to appropriately wear an authorized safety vest while operating airside (even when inside a vehicle)  |
| Using skateboards, inline skates, scooters, and other vehicles propelled by the operator  |
| Walking through security guard houses   |
| Driving through an ERS Controlled Access Area   |
| Driving a motor vehicle without a seatbelt  |
| <b>Class D violations: 2 points</b>   |
| <p>Any other failure to observe any ATD is a Class D violation, if it is not any of the following:</p> <ul style="list-style-type: none"> <li>• Gross misconduct violation</li> <li>• Class A violation</li> <li>• Class B violation</li> <li>• Class C violation</li> </ul>            |

### Multiple Violations

More than one AVOP violation can be noted during a single incident of vehicle operation and on a single *Violation Notice*. Multiple AVOP violations occurring at the same time are **cumulative**

For example, if an operator is travelling in excess of the speed limit (Class C violation) while driving outside of a vehicle corridor (Class C violation), a total of 6 violation points will be assessed.

### Suspension of Privileges

If the *Violation Notice* results in the accumulation of 6 or more violation points in the last 12 months, the operator will be subject to a suspension of their AVOP privileges.



A suspension letter will be sent to the employer of the operator, setting out the nature of the violation, the AVOP violation points assessed, and the effective dates of the suspension of the operator's AVOP privileges. The employer must forward a copy of the suspension letter to the operator and assist in co-ordinating the removal of the operator's AVOP designation with the AVOP Office for the duration of the suspension.

### Expiry of Violation Points

Violation points accumulate on the operator's AVOP and only expire after the operator has driven airside for a period of **12 months** without an AVOP violation

Prior violations may be taken into account by the Superintendent, Airside Vehicle Operations in assessing the appropriate length of suspension and the need for any retraining or retesting.

### Suspension of AVOP Privileges

As an AVOP operator, you are subject to the following consequences to your AVOP privileges if you accumulate the following number of AVOP violation points:

| Total Violation Points | Length of Suspension   |
|------------------------|--|
| 6                      | Up to 2 working days   |
| 9                      | Up to 5 working days   |
| 12                     | Up to 10 working days  |
| 15                     | Up to 20 working days and an automatic review of AVOP privileges by the Superintendent |

**IMPORTANT:** Violation points expire one year from the date the points are earned.

### Example of Violation Point Accumulation and Expiry

Any violations received within a one year period will accumulate on your AVOP record and will result in additional suspensions.

| Date                     | Occurrence  | Result                   | Cumulative Penalty Points | Suspension                             |
|--------------------------|---|--------------------------|---------------------------|--|
| January 5                | Operator is ticketed for speeding                       | 3 points                 | N/A                       | N/A                                    |
| April 5 (3 months later) | Same operator is cited for parking in a prohibited area | 3 points added to record | 6 points                  | 2-working day, driving-only suspension |

| Date                                      | Occurrence  | Result                       | Cumulative Penalty Points        | Suspension                              |
|---|---|------------------------------|----------------------------------|---|
| May 5 (1 month later)                     | Same operator is ticketed for failure to follow the vehicle corridor  | 3 points added to record     | 9 points                         | 5–working day, driving-only suspension  |
| January 6 (1 year after January 5 ticket) | Points from operator's January 5 ticket expire                        | 3 points removed from record | 6 points (Apr & May still apply) | N/A                                     |
| August 5 (3 months later)                 | Same operator is ticketed for driving at twice the posted speed limit | 9 points added to record     | 15 points                        | 20 working day, driving-only suspension |

### Suspension Period

Suspension of AVOP driving privileges are for working days (days you normally would have been permitted to drive airside if not for the AVOP suspension). They do not include holidays, days off, or days when you are not permitted to drive in the Province of British Columbia, which are added to the suspension period.

Unless you successfully appeal a violation that results in a suspension, the suspension comes into effect on the date stated in the violation letter, generally 30 days from the violation date. If your appeal of a suspension is denied, a new suspension date may be set when notification is sent of the result of the appeal.

You (the AVOP holder), or your company supervisor or manager, must surrender the AVOP to Access Control for the suspension period. You may also elect to surrender the AVOP early.

### Retraining or Retesting

In addition to any suspension assessed, you may be required to complete retraining or retesting procedures before a specified date, if the Superintendent AVOP determines that this is in the interests of airside safety. If you fail to comply with the retraining or retesting requirements, you will lose AVOP privileges until you have completed the retraining or retesting.

### Determination of Consequences

The Superintendent, Airside Vehicle Operations may take previous violations into consideration in determining the length of any suspension, the need for retraining and retesting, or the continuing grant or removal of AVOP privileges.

The Superintendent, Airside Vehicle Operations has the right to:

- Review any operator's AVOP driving record at any time
- Issue a suspension or prohibition, or make any order requiring retraining or revoking an operator's AVOP driving privileges



## Suspension of Restricted Area Identification Card

Your RAIC will be suspended immediately for 24 hours

- If you smoke while airside (including while you are a pedestrian)
- Operate a motor vehicle airside without a valid AVOP. Individuals caught driving without an AVOP designation will receive the following:
  - Immediate 24 hour suspension of all RAIC privileges.
  - Airside access privileges will be revoked and a terminal access only RAIC issued, for a period of 15 days.
  - Airside driving privileges revoked for a period of **12 months**

## Violation Notice Reviews and Appeals

### Right of Review: Notices Not Containing a Gross Misconduct Violation

If you receive a *Violation Notice* (except a *Violation Notice* that contains a gross misconduct violation), you may request a review by filing a written submission to the Superintendent, Airside Operations within 30 days of the *Violation Notice*.

All written submissions should contain a description of your version of what occurred with any explanation about why you failed to follow the ATDs or why any period of suspension should be reduced. Operational necessity or ignorance of an ATD are **never** valid reasons for failing to follow the ATDs.

All reviews are conducted by the Superintendent, AVOP or designate. All review procedures are at the discretion of the Superintendent, AVOP, who will conduct an investigation as deemed appropriate/necessary to reach conclusions about the standard of a balance of probabilities.

The Superintendent, AVOP or designate on review may do one or more of the following:

- Cancel all or part of the *Violation Notice*
- Substitute a lesser AVOP violation for the AVOP violation in the *Violation Notice*
- Confirm the *Violation Notice*
- Reduce the period of suspension resulting from a confirmed *Violation Notice*

The AVOP Superintendent or designate will provide notification by letter to your employer of the results of the reviewed decision.

### Automatic Review: Notices Containing Gross Misconduct Violations

Gross misconduct violations are hazardous and irresponsible actions that pose an unacceptable risk to airside safety. If you commit a gross misconduct violation, your AVOP will immediately be seized. This will be followed by an automatic 20-working day suspension of your AVOP privileges and a requirement to retake and pass the AVOP written and practical tests, with the YVR AVOP examiner, prior to the reinstatement of AVOP privileges.

All Gross Misconduct violations are referred to the Superintendent, AVOP or designate for review. The AVOP Superintendent may obtain a statement from you and investigate the incident

as deemed appropriate/necessary to reach conclusions about the standard of a balance of probabilities. Self-reporting will be taken into positive consideration for all Gross Misconduct investigations.

The Superintendent, AVOP or designate on review may do one or more of the following:

- Cancel all or part of the *Violation Notice*
- Substitute a lesser AVOP violation for the AVOP violation in the *Violation Notice*
- Confirm the *Violation Notice*
- Reduce the 20-day period of suspension resulting from a confirmed *Violation Notice*
- Increase the 20-day period of suspension resulting from a confirmed *Violation Notice* by any period deemed fit

The Superintendent, AVOP or designate will provide notification by letter to your employer of the results of the automatic review of the gross misconduct violation.

### Automatic Review: Accumulation of More Than 15 Violation Points

An accumulation of AVOP violations may indicate a need for retraining. If you accumulate more than 15 violation points on your AVOP, the Superintendent, AVOP or designate will (along with suspending your AVOP privileges for a period of up to 20 days) also review your AVOP privileges and may require you to retake and pass the AVOP written and practical tests, with the YVR AVOP examiner, or complete any other training deemed appropriate following the suspension, prior to the reinstatement of AVOP privileges.

### Appeal to Director Airside Operations

You may appeal the review decision within 14 days of receiving notification of the review decision by providing a written request to the Director Airside Operations.

The Director Airside Operations will:

- Consider any written submission along with any explanation from the AVOP Superintendent or designate for why review of the *Violation Notice* was denied
- Conduct any further inquiries deemed appropriate
- Either deny or allow the appeal and make any order that the Superintendent, AVOP could have made on review
- Provide notification by letter to your employer of the results of the appeal decision

The decision of the Director Airside Operations on appeal is final and is not subject to further review or appeal.

### Stays of Suspension

Unless the *Violation Notice* contains a Gross Misconduct violation, suspension of your AVOP does not begin until 30 days after the *Violation Notice* is issued. Your AVOP will be returned in the interim.



If you wish to waive the right to review and serve the suspension at an earlier time, you may contact the AVOP Office to make these arrangements. If you file a review or appeal of the *Violation Notice* and the decision on review or appeal cannot be made prior to the start of the suspension, your application of the suspension may be stayed for an additional period of time pending the decision on review or appeal. If the review or appeal is unsuccessful, the letter from the Superintendent, AVOP or designate will set out any period of suspension remaining and the effective dates of the remaining period of suspension of your AVOP privileges.



# General Rules

## These rules are applicable to all AVOP designations.

Safety is everyone's responsibility. Never allow operational considerations, such as time pressures, to compromise safety.

This section covers the following:

- [Airside Prohibitions](#)
- [Individuals without Vehicles \(Pedestrians\)](#)
- [Safe Driving](#)
- [Passing and Safe Distances](#)
- [Traffic Signs and Markings](#)
- [Speed Limits](#)
- [Vehicle Corridors](#)
- [Vehicle Gate Access](#)
- [Fuelling and Servicing Operations](#)
- [Anti-Idling](#)
- [Parking / Unattended Vehicles](#)
- [Special Areas](#)
- [Traffic Accidents](#)
- [FOD – Foreign Object Debris](#)
- [Environmental Incidents](#)
- [Towing](#)
- [Cargo Handling](#)
- [Helipads](#)

## Airside Prohibitions

The following are not permitted airside:

- Smoking and the use of e-cigarettes, including inside of vehicles
- Using any personal electronic devices (including mobile phones and iPods), or wearing ear buds
- Operating motorcycles, mopeds, and bicycles
- Skateboards, inline skates, scooters, and other vehicles propelled by the operator
- Walking through security guard houses, unless authorized by Vancouver Airport Authority



## Individuals without Vehicles - Pedestrians

### Pedestrians

Pedestrians are individuals who are in the airside environment without a vehicle. Obey the following rules at all times while airside:

- Display a valid RAIC on outer clothing above the waist.
- Comply with *Canada Labour Code* and wear a high visibility vest or other similar clothing.
- Whenever possible, use marked pedestrian corridors when walking on the apron.

All vehicle operators must yield to pedestrians and always be on the lookout for people walking in and around aircraft stands and walking to the terminal buildings. Use special caution at night or whenever visibility is reduced.

### Aircraft Marshalling Crews

Marshalling Crews without vehicles must use extra caution when walking on the apron. After an aircraft has pushed back and the tug has been disconnected, Marshalling Crews are required to walk back directly to the stand they came from as quickly as possible to ensure they are safely out of the way of aircraft and vehicles.

It is strongly recommended that Marshalling Crews ride in vehicles back to the operating stand whenever possible.

## Rules for Vehicle Operations

**AIRSIDE SAFETY: Never pass between enplaning / deplaning passengers and their gate or aircraft.** This is particularly important at the commuter gates where apron passenger corridors are used between the end of the gate structure and the aircraft.

- Do not reverse unless absolutely necessary. When reversing, a lookout person should be present to advise if the vehicle can reverse safely.
- Do not tailgate. Maintain a safe distance from all other vehicles and equipment. Always be aware of height or width restrictions.
- Never pass between an aircraft and the person marshalling that aircraft.
- Never overtake or pass a taxiing aircraft, even when in a vehicle corridor.
- Never travel under a passenger boarding bridge, unless in a vehicle corridor. When operating an over-height vehicle, you are responsible for ensuring adequate vertical clearance.
- Do not travel through an operational stand unless the vehicle is being used for work in that stand.

## Right-of-Way

In order of priority, always yield to the following:

- Aircraft under power or being towed and vehicles exiting controlled surfaces
- Emergency vehicles responding to incidents (lights and/or sirens)
- Passenger Buses
- Snow removal and apron sweeping vehicles
- Fuel tankers
- Airfield maintenance equipment (grass cutters etc.)
- Vehicle to an operator's right at an intersection, when both vehicles have equipment established in a vehicle corridor

## The Following Rules Apply When Operating Around Aircraft:

- Remain a minimum of 7.5 m (25 ft) from an aircraft, unless servicing that aircraft. Driving underneath the aircraft's wings or tail is prohibited unless the vehicle is servicing the aircraft. *(Please refer to specific driving instructions for the DTB Horseshoe)*
- Do not cause an aircraft, under power or under tow, to deviate from their planned course or to adjust the aircraft or tow speed to perform an evasive manoeuvre.
- Be vigilant to the hazards of jet blast. When an aircraft's engines are running, maintain a safe distance. Maintain a distance of at least two plane lengths from the tail of any aircraft under power and increase this distance as engine thrust is increased such as when an aircraft is starting to taxi.
- Once an aircraft has powered onto a gate, make sure the aircraft engines are OFF before driving behind the aircraft. If the aircraft needs to adjust its position, it may need to use increased thrust to do so.

## Traffic Signs and Markings

Traffic markings and signs on the aprons and roads are equivalent to provincial signage and markings of the same type. These signs may be mounted on a wall or post, or painted on the ground. All signs must be obeyed at all times.

## Speed Limits

Unless otherwise posted, the speed limits are as listed in the following table. Speed limits can be found on signage or painted on the ground.



| Limit   | Area   |
|---------|--|
| 10 km/h | Baggage make-up areas  |
| 15 km/h | All tunnel ramps and head-of-stand roadway between B and C piers |
| 25 km/h | All vehicle corridors, aprons and movement area                  |
| 40 km/h | All airside roads unless otherwise posted                        |

**AIRSIDE SAFETY:** Speeding is the most common ticketed violation. Speeding reduces your situational awareness and reaction time. Do not let operational pressures cause you to speed.

Take note of the speed limit change as you approach an apron from an airside road.

Never exceed the speed limit, unless specifically instructed by Airport Operations or Security personnel.

When operating equipment, **reduce your speed** during poor weather conditions and when visibility is reduced. Also reduce speed when approaching the following:

- Vehicle tunnels
- Blind corners
- Aircraft
- Apron pedestrian corridors
- Construction zones
- Authorized Airport Operations Personnel may exceed these speeds when responding to emergencies. Emergency vehicles will display red and/or blue flashing lights when driving to an emergency.

## Vehicle Corridors

When entering and exiting a vehicle corridor, join the road at a right angle (90 degrees) to ensure maximum visibility, and yield to other traffic already travelling in the corridor. Signal your intent using the vehicle's turn signal lights. If the vehicle is not equipped with turn signal lights, signal directional intent with approved hand signals.

***Passing is permitted, provided that the speed limit is not exceeded and there is no traffic. Passing in tunnels or breezeways is strictly prohibited.***

You may travel between two adjacent gates without using a vehicle corridor if you are working on the adjacent aircraft stand, if required by your duties. If travelling between gates that are not adjacent (one or more gates are in between), you must use a vehicle corridor.

## Vehicle Gate Access (SECURITY)

Some primary security line gates are automated for use with a RAIC pass. After entering or exiting through one of these gates, you must stop and wait for it to fully close before leaving.

If you are the second vehicle entering through the vehicle access gate, you must wait until the gate is fully closed and the first vehicle has left the gate before the gate is re-opened. Accessing the gate at the same time as another vehicle or before the gate is fully closed from the first vehicle or lead vehicle is considered tailgating. This is an offence under the *Canadian Aviation Security Regulations* Section 135, 292, and 446.

**AIRSIDE SAFETY:** If you open a gate or door in the security barrier, you are responsible for controlling access through that point (*Canadian Aviation Security Regulations*). You must prevent unauthorized access and secure the gate or door when leaving it.



## Fuelling and Servicing Operations



Do not drive over hoses, cables, or cords involved in servicing or maintenance of an aircraft.

Keep ground service vehicles and carts a minimum of 2 m (6.5 ft) from hydrant fuelling pits. Most hydrant fuelling pits are marked by a **red circle** containing a **blue** and **yellow** centre.

Do not park behind a vehicle involved in fuelling or a catering truck involved in servicing an aircraft.

Fuel and hydrant trucks and propane tankers have a **maximum speed limit of 25 km/h**.

Fuel tankers are prohibited from all airside tunnels, underpasses, and head-of-stand corridors, and from travelling within 15 m (50 ft) of any building. Never leave a fuel truck unattended outside of the fuel compound.



### Access to Fuel Truck Compound

The Fuel Truck Compound is located on the west side of Taxiway Juliet (J). Fuel truck and vehicle operators are permitted to cross Taxiway J as follows:

- Under normal operating conditions, you may cross Taxiway J without clearance. All vehicles must come to a complete stop prior to Taxiway J and give way to aircraft before crossing the taxiway.
- If low-visibility operations are in effect, you must receive clearance from ATC prior to crossing Taxiway J.

### Vehicle Fuelling

All companies that fuel equipment in airside areas must be licensed by the Airport Authority to do so. Vehicle fuelling may only occur as follows:

- Outside of any building or enclosed structure
- In designated areas and at least 15 m (50 ft) from the building
- At least 7.5 m (25 ft) from any aircraft
- With the refuelling vehicle at least 4.5 m (15 ft) from any source of ignition
- Use of phones and radios in the immediate area of the refuelling is prohibited

### Anti-idling

Technical studies conducted by the Government of Canada show that idling for more than 10 to 30 seconds consumes more fuel than stopping and restarting the engine. In the interest of saving fuel, reducing staff exposure to harmful air pollutants, and reducing greenhouse gas emissions, you are required to turn off vehicle engines when they are not in service.

When driving airside in uncontrolled areas:

- Turn off the engine when stopping for longer than 30 seconds.
- Warm up the engine for no longer than 1 minute after a cold start.

- If safe, turn off the engine when temporarily vacating a vehicle (for example, to remove FOD).
- Turn off the engine and use the vehicle battery to power the radio and beacon light if stopping for 15 minutes or less.

## Parking / Unattended Vehicles

Section 301.08 of the *Canadian Aviation Regulations* prohibits the parking of a vehicle except in accordance with permission given by the operator of the aerodrome. At YVR, permission from Vancouver Airport Authority is granted in the form of a lease, or by the authority of the Superintendent, AVOP.

Never leave a vehicle or equipment unattended on any vehicular route or aircraft movement area. Vehicles or equipment may only be parked in the following airside areas:

**Leased areas** Check with your company for exact locations.

**Within apron safety lines and equipment staging areas** for a maximum of 1 hour before the scheduled arrival time of the next inbound flight, with the exception of emergency response vehicles attending an emergency incident. All equipment must be immediately removed after the aircraft has departed from the gate.

**Marked parking stalls.** All vehicles must be backed into parking stalls, unless it is unsafe to do so, so they do not have to back into traffic when leaving the stall. A vehicle must not exceed the height restriction of the area in which it is parked.

NOTE: Vehicles and equipment left outside these areas may be towed at the company's expense and an AVOP violation may be issued to the operator.

### Parking rules:

- Apply the parking brake and turn off the engine when your vehicle is unattended.
- Do not leave vehicles or equipment unattended airside unless they are parked in a designated parking area.
- Always remove the keys from unattended vehicles.
- If vehicles or equipment are outfitted with stabilizers, use them when performing your duties. For example, if operating a catering truck, use the truck's stabilizers when loading an aircraft, as required.

## Special Areas

### Apron VI

On Apron VI, ATC provides an advisory service to pilots and ground crews during pushback only. The advisory service does not regulate normal vehicle traffic.



If you are equipped with a radio, always monitor the appropriate Ground Control frequency to improve your situational awareness regarding aircraft movements.

The following are indications that an aircraft is about to push back from a gate:

- Illuminated anti-collision lights on the top and bottom of the aircraft (red flashing lights)
- Wing walkers in the vicinity of wingtips
- Tug connected to the aircraft
- Retracted passenger bridge
- Servicing vehicles are moved away from the aircraft

### Domestic Horseshoe

The layout of the area known as the Domestic 'Horseshoe' (between the B and C piers on the west side of the Domestic Terminal Building) is unlike any other part of Apron VI because it does not have a vehicle corridor accessing all aircraft stands. In addition to all other driving rules, the following special rules apply:

- Use the wing / tail clearance line as guidance for where to drive in the horseshoe (*this is not considered gate-to-gate driving*). You must drive on the building side of the line.
- Consideration for taxiing aircraft must be observed when driving along the tail clearance line behind parked aircraft.
- Stop your vehicle at all tail / wingtip clearance lines to check for aircraft and other vehicles before proceeding.
- Do not cut across the horseshoe.\*
  - \* *Some operational vehicles may require access to the horseshoe for safety reasons including but not limited to, inspections, the retrieval of FOD and wildlife.*

### ITB Tug Tunnel

The International Terminal Building (ITB) tug tunnel is a restricted driving area. The **maximum** speed limit in the tunnel or on any of the entrance ramps is **15 km/h**. You may only enter the tunnel if operating the following:

- Vehicles using the baggage belt system
- Vehicles belonging to Airport Operations, Security, or Maintenance
- Vehicles that are specifically authorized by Airport Operations
- Emergency response vehicles
- Snow and ice clearing equipment

### Emergency Response Services

Airside areas designated as **ERS ONLY** are for Emergency Response Services (ERS) vehicles. Parking of any vehicles and/or cargo in areas designated for ERS is prohibited.





To protect personnel from an ongoing incident, an **Emergency Responder Controlled Access Area** is marked by orange traffic cones, caution tape, emergency vehicles, or a combination of these.

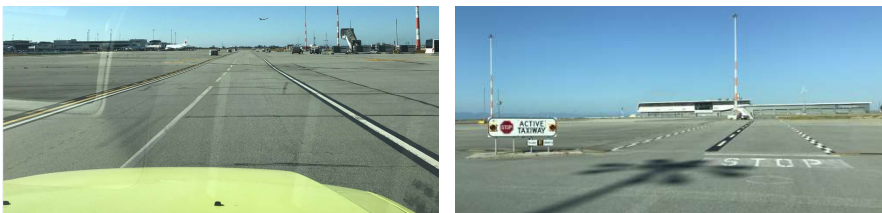
Depending on the severity of the action, drivers who enter a controlled access area are subject to any of the following:

- Gross misconduct violation: operating a motor vehicle in a manner that is dangerous to persons, having regard to all circumstances (Section 249 of the *Criminal Code of Canada*)
- Class A violation: driving without due care and attention
- All drivers must yield and safely move out of the way for all ERS vehicles responding with lights and/or sirens. These vehicles include YVR ERS vehicles, BC Ambulance (BCAS), Richmond Fire Rescue (RFR), RCMP and Security vehicles.

### Aircraft De-icing Bays

Aircraft De-icing Bays are controlled surfaces when active - Do not enter aircraft de-icing bays when de-icing operations are in effect unless given authorization by the de-icing provider. Obey all signage and restrictions during de-icing operations.

The vehicle corridor abeam the West Pad de-icing bays along Taxiway Juliet may be restricted by Airport Operations during the winter season.



West De-icing pads 17,18 and 19 have a vehicle corridor provided for vehicles that crosses Taxiway Romeo across from West De-icing pad #6.



## Traffic Accidents

Airside traffic accidents must be reported as described below<sup>8</sup>.

As required by the laws of the Province of British Columbia<sup>9</sup>, if you are **involved in an accident**, you must do the following:

1. Stop at the scene of an accident and assist if necessary (including calling 911 for an ambulance and then Airport Operations at 604.207.7022). Provide your name, address, and licence plate and insurance details to any other person involved in the accident.
2. If damage is caused to an unattended vehicle, leave contact information in a conspicuous place on the unattended vehicle.
3. If the accident results in property damage, an injury, an obstruction, or a disruption to airside traffic, immediately report the accident to Airport Operations at 604.207.7022.

If you **witness an accident** airside, you must:

1. Stop at the scene of the accident and assist any injured person if necessary.
2. Provide contact information to a responsible person at the scene of the accident.
3. If requested, provide an account of what you witnessed to enforcement personnel or the AVOP Superintendent or designate.

## Environmental Incidents

Spills of hazardous materials or unknown substances can be a significant threat to personal health, safety, and the environment.

If you cause or discover a spill of unknown substances or hazardous materials, do not attempt to clean up the material unless you are trained to do so safely.

If you are unfamiliar with the hazardous properties of a spilled substance, retreat to a safe distance of at least 50 m, make best efforts to prevent others from coming in to contact with the substance and call Airport Operations immediately.

**Never** drive through any type of spill.

---

**AIRSIDE SAFETY: Immediately** report all spills to Airport Operations at 604.207.7022, as well as to your employer.

---

<sup>8</sup> *Airport Traffic Regulation*, section 13(a) and (b)

<sup>9</sup> *Motor Vehicle Act*, section 68(1) and *Criminal Code of Canada*, section 252

Provide the following information to Airport Operations:

- Name and employer
- Exact location of the spill
- Cause of the spill, if known
- Source of the spill – organization or individual involved
- Name of the materials spilled, if known
- Injuries that have occurred as a result of the spill

---

**AIRSIDE SAFETY:** Always ensure your own safety while waiting for response personnel, but remain available to provide further information.

---

## FOD – Foreign Object Debris/Damage

Keeping the airport free of foreign object debris / damage (FOD) is the responsibility of every single person who works airside. It is critical to the success of all companies working airside to ensure that the airside is kept clean and safe. Whether operating a vehicle or on foot, always remove and dispose of FOD safely.

### FOD Prevention

Loose paper, plastic, and metal objects can cause significant damage to aircraft and injury to airport personnel. Do not knowingly deposit or leave any material on airside surfaces, and keep your airside working areas clear of FOD.

Before driving airside, check that your vehicle's wheels and tires are clear of mud, sand, and gravel.

FOD disposal barrels are located around the apron and are identified by their red colour and a sticker designating a FOD receptacle. FOD buckets are attached to the hand rails at the bottom of loading bridges and can be identified by their orange colour. If the Barrel or Bucket is full or overflowing, call Airport Operations at 604.207.7022.



## Pallet Removal

Pallets left in an airside area can be easily damaged, resulting in small pieces of wood and nails becoming a FOD hazard.

Remove pallets taken airside from the apron immediately, including wrappings and ties. Place pallets in designated areas marked by a sign.



## Towing



It is strongly recommended that operators tow a maximum of 3 unit loading devices whenever possible.

- On **Apron VI only**, a vehicle may tow a **maximum of 6 carts or 4 cargo pallet dollies**.
- On all other aprons, a vehicle may tow a maximum of 4 unit loading devices or 4 cargo pallet dollies.

The number of towed units should be reduced as visibility and/or road conditions deteriorate.

Cargo pallet dollies are not permitted to transit on the head-of-stand road between B and C piers.

Vehicle operators are responsible to ensure that:

- All towed units are securely attached to the towing vehicle or another towed unit.
- All necessary safety devices, such as safety chains and locking clamps, are used.

---

**AIRSIDE SAFETY:** Operators are responsible for monitoring their loads and avoiding loss of cargo.

---

## Cargo Handling

Never exceed designated weight restrictions or permitted tug length when transporting cargo or baggage.

### Baggage / Cargo Containers

All cargo and baggage containers (such as LD3s) must be secured to a racking system or locking carrier.

Unsecured containers, particularly because of their lightweight construction and exposure to jet blast, are a hazard to aircraft and airside personnel.



### Transporting Dangerous Goods

Transport of dangerous goods must be in accordance with international agreements (ICAO – IATA).

## Golf Carts

Golf carts are approved to drive on the head-of-stand road and within baggage halls or in any area approved in writing by the Superintendent, AVOP (for example, in areas where there is no Head-of-Stand Road, such as the C-Pier commuter facility). All golf carts must:

- Comply with the requirements in *Vehicle Beacons* and *Vehicle Markings*.
- Be equipped with brake lights.

Make sure that baggage is securely stored on golf carts at all times and does not pose a safety risk to the driver or passengers. Store bags so they cannot fall off the golf cart while in operation.

## Helipads

### Hold Markings



Hold markings Helipad C and B from incursion from vehicles, pedestrian or aircraft. These markings are similar to those near the runways. As with all hold markings, ATC must be contacted prior to proceeding onto these surfaces.

Helicopters may also use taxi lines when approaching or departing helipads.

### Helicopter Touchdown Points / Parking



Helicopter parking / touchdown points are indicated by two yellow circles, one inside the other, with a yellow "H" inside the smaller circle.

# Aprons – Taxiways - Runways

## Applicable to all AVOP Designations

This section reviews some of the key terms and areas you will need to recognize and operate on. It covers the following:

- [Taxiways](#)
- [Runways](#)
- [Aprons](#)
- [Airside Roads](#)
- [Vehicle Corridors](#)

## Key Terms

The following are some of the key terms for operating in an airside environment:

- **Movement areas** are all areas of the airport provided for the movement of aircraft, both controlled and uncontrolled. Examples of movement areas include taxiways that are controlled and gate areas that are uncontrolled.
- **Manoeuvring areas** are used by aircraft for takeoff and landings, and include controlled surfaces such as runways, as well as most taxiways and helipads. Most manoeuvring areas are controlled areas and under the direction of Air Traffic Control (ATC).
- **Controlled surfaces** are airside areas that you cannot enter unless you have been granted radio clearance from ATC, and you have a D AVOP and an appropriately equipped vehicle. Runways and most taxiways are controlled surfaces.

Controlled areas are clearly marked with signs, and include the runways, most taxiways, and most taxiway access points from the aprons.

- **Uncontrolled surfaces** are the aprons used for loading and unloading and servicing aircraft, and the gate areas.

## Taxiways

### Controlled Taxiways

All taxiways at YVR are controlled by ATC, with the exception of the taxiways listed below under [Uncontrolled Taxiways](#). Under normal operating conditions, all vehicles may cross these taxiways within the vehicle corridor without obtaining clearance from ATC.

During normal weather conditions the following controlled taxiways have *uncontrolled vehicle corridors* passing across them:

|            |            |            |          |
|------------|------------|------------|----------|
| Papa (P)   | Tango (T)  | Romeo (R)  | Kilo (K) |
| Sierra (S) | Juliet (J) | Victor (V) |          |

### Uncontrolled Taxiways

Uncontrolled taxiways are not under the supervision of ATC. AVOP holders may use them **without clearance from ATC**, but aircraft always have the right-of-way.

The following taxiways are uncontrolled:

|   |  |
|---|--|
| Foxtrot (F)                                     | Delta Sierra (DS)                                  |
| Charlie (C) south of Foxtrot (F)                | Delta Tango (DT)                                   |
| Quebec (Q) (south of the Canadian Service Road) | Delta Uniform (DU)                                 |
| Delta Romeo (DR)                                | Delta Victor (DV)                                  |
|   | Delta Whiskey (DW)                                 |
|   | Delta Yankee (DY) (north of the Runway Hold Lines) |

### Signs, Lighting, Lines, and Markings

The following table describes and shows taxiway signs, lighting, and markings.

#### Taxiway information signs

##### Taxiway Location Signs

The signs indicating taxiway names are **black with yellow letters**.

TIP: *“Black square, you are there.”*



##### Taxiway Directional Sign

The signs indicating the direction of taxiways are **yellow with black letters**.

TIP: *“Black on yellow route to follow”*





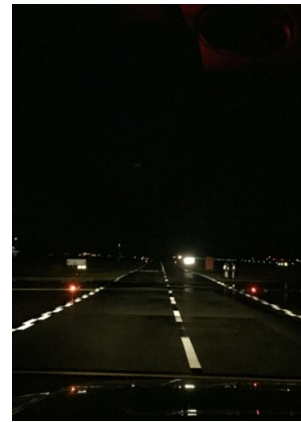
### Taxiway edge lights

The edges of taxiways can be marked with **blue** lights or blue reflectors.



Double amber edge lights denote a taxiway entrance to an apron.

The intersection of an airside road and an apron or taxiway is marked by single red lights on each side of the roadway.



### Taxiway edge markings

**Double yellow lines** indicate edges of taxiways, which are the end or edge of the load-bearing surface for aircraft. Aircraft are not to cross these markings, even under tow.

Ground crews must know the difference between edge markings and taxiway centre lines (single yellow line outlined in black).

If an aircraft's wheels cross an edge line by mistake, advise the pilot or immediately notify ATC.



## Manoeuvring Area Delimitation (MAD)

A single yellow solid line and a single yellow dashed line indicate the separation between a controlled surface and an uncontrolled surface. The solid line represents the uncontrolled surface and the dashed line represents the controlled line.

Do not cross the solid line without a D AVOP and clearance from ATC.



## Zipper lines

White “zipper” lines indicate where a vehicle corridor crosses an aircraft taxi lane or taxiway.

Use extreme caution and be on the lookout for aircraft that may cross your path at high speed.



## Taxiway intersection lines

Taxiway / taxiway intersections may be marked by a single yellow dashed line perpendicular to the taxiway centre line marking and co-located with taxiway Intersection lights which consist of 3 amber lights parallel to the intersection marking.



These markings denote positions where aircraft or vehicles may be held for aircraft to safely pass on the intersecting taxiway...

## Taxiway centre lines

Taxiway centre lines are solid yellow lines.

Taxiway centre line lights are green and run parallel to the taxiway centreline.



## Runways

### Signs, Markings and Lighting

The following table describes and shows runway signs, markings and lighting.

#### Mandatory Instruction Signs

These signs are **red with white** lettering.

TIP: *“White on red, runway ahead.”*

These signs are co-located with Runway Hold Markings and denote the boundary of the runway at which all aircraft, vehicles and pedestrians are stopped until receiving clearance to proceed from Air Traffic Control.



#### Runway Edge Lights

These lights outline the edges of runways during periods of darkness or restricted visibility conditions. Runway edge lights are **white**.



#### Runway Markings

Runway centreline, threshold, touchdown zone and edge markings are **white**.



## Runway Hold Lines

Runway holdlines, also known as taxi hold lines, are **two solid yellow and two dashed yellow lines** co-located with Mandatory Instruction Signs at the boundary of a runway.

The solid lines are on the taxiway side and the dashed lines are on the runway side.

Runway holdlines may be co-located with yellow flashing Runway Guard Lights, also known as Wigwags, on both sides of the Holdline where provided.

*\*Runway Hold Lines are also found at Helipads*

**AIRSIDE SAFETY:** At no time are runway hold lines or taxi hold positions to be crossed without permission from ATC.

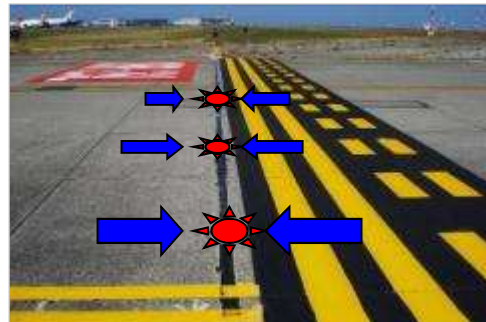
All traffic approaching these markings and lights must **STOP** and obtain permission from ATC before proceeding.



## Stop Bars

Stop Bars consist of a single row of flush or semi-flush **red** inset lights installed laterally along the runway holding position marking. They protect the entry to Runways 08L, 26R, 08R, 26L during low-visibility operating conditions.

**It is prohibited to cross lighted Stop Bars at any time.** Aircraft and vehicle operators requiring access to a runway equipped with stop bars must obtain clearance from ATC and proceed onto the runway **ONLY** when the Stop Bars are unlit.



**AIRSIDE SAFETY:** It is prohibited for a pedestrian, aircraft, or vehicle to cross an illuminated stop bar.

## Aprons

Aprons are an uncontrolled part of the airside environment, and clearance from ATC is not required to operate on them. Aprons are used for loading, unloading, and servicing aircraft, as well as for vehicle, passenger, and other pedestrian movement. YVR has nine aprons in total. **The main commercial air carrier apron at YVR is identified as Apron VI (Apron Six).** The following photo shows the layout of the 'DTB horseshoe' apron.



- |   |                               |   |                          |
|---|-------------------------------|---|--------------------------|
| A | Aircraft taxi-line            | E | Vehicle corridor to ramp |
| B | Information triangle          | F | Apron safety line        |
| C | Aircraft lead-in line         | G | ERS staging areas        |
| D | Tail / wingtip clearance line |   |                          |

Please see 'General Rules - Special Areas' section for specific driving instructions for the DTB Horseshoe.

## Markings

The following table describes and shows markings that may be found on aprons.

### Aircraft Taxi-Lines

Pilots use these **solid single yellow lines** to keep the nose wheel of their aircraft centred on the taxiway, thereby ensuring that the main wheels remain on the paved, load-bearing surface and the wings do not hit obstacles.

Vehicles should only cross aircraft taxi-lines while operating in a vehicle corridor (see Zipper Lines).



### Aircraft Lead-in Lines and Stand Identifiers

Pilots navigate their aircraft following these **yellow aircraft lead-in lines with black borders** to correctly align an aircraft with the aircraft parking stand.



Two types of gate identification markings are used:

- The 'price tag,' referred to as such due to its shape. It is yellow in colour, with a solid black border, with the gate number also in black.
- The triangle, which is being phased out. The triangle is black in colour with a yellow boarder and the gate number in yellow.

### Tail / Wingtip Clearance Line

A **solid white line** is used to mark the rear of an aircraft operating stand. For aircraft stands with a tail-of-stand vehicle corridor, the closest edge of the vehicle corridor to the building is the tail clearance line.



### Aircraft Start Boxes / Taxi Position Fixes

Aircraft Start Boxes/Taxi-position Fixes are marked with an identification circle with an alpha-numeric designation and a single dashed yellow line perpendicular to the centreline.

These markings indicate to ground crews where to position the aircraft prior to engine start-up or to aircraft under tow or being taxied where they can hold while waiting for further taxi instructions.



### Bridge Return Circles

These **concentric circles of red, white, and red** paint mark the apron areas in which the wheels of the passenger loading bridge are to be parked when the bridge is not in use.

It is prohibited to stop or park in a Bridge Return Circle.



### Bridge Safety Lines

Bridge Safety Lines are parallel **red lines** in the vicinity of passenger boarding bridges.

No parking or driving is permitted in the area defined by these lines.



### Apron Safety Lines

Apron Safety Lines consist of parallel lines (one **red**, the other **white**) to demarcate the limits of where equipment can safely be staged when aircraft are moving on and off an aircraft parking stand. Vehicles and equipment should be on the white side of the line.

It is prohibited to park a vehicle or equipment on the red side of this line when an aircraft is entering or exiting an aircraft parking stand.



### Special Equipment Staging Areas

These areas are marked with two adjacent lines (one **red**, the other **white**) near the tails of aircraft on some gates. Items no taller than 1.5 m (5 ft) may be staged in these areas, for a

maximum of 1 hour before the scheduled arrival time of the next inbound flight. All equipment must be removed after the aircraft has departed from the gate.

---

**AIRSIDE SAFETY:** It is prohibited to a vehicle or equipment to be on the red side of an Apron Safety Line unless that vehicle or equipment is engaged in moving an aircraft on or off an aircraft parking stand.

### Apron Passenger Path Lines

Apron Passenger Path Lines are **white lines** painted on an aircraft stand to denote a safe corridor in which passengers and crew can move between the aircraft and the terminal during ground loading operations.



It is prohibited travel across or park between these lines when an aircraft is on the associated operational stand.

### Pedestrian Crosswalks

Pedestrian Crosswalks comprise one solid white line on each side, with a white, cross-hatch pattern inside marking the walking area.



### Stop lines

Vehicle Stop Markings are used to denote positions on vehicle corridors and roads where vehicles must stop and give right-of-way before proceeding.





## Safety Cones and Wheel Chocks

Aircraft Wheel Chocks and Safety Cones must be returned and stored in designated storage areas on the aircraft stand when not in use.

## Airside Roads

The **maximum** speed on any airside road is **40 km/h unless otherwise posted...**

## Vehicle Corridors



Vehicle Corridors are the roadways for vehicles and equipment operating on aprons, they allow vehicle and equipment movements to occur in a safe and predictable manner.

Vehicle Corridors are denoted by two parallel **solid white** lines about 7.5m apart with a dashed centreline in the middle to separate traffic traveling in opposite directions.

The solid white lines are replaced by zipper lines when a vehicle corridor crosses a taxiway or taxilane.

In addition to the vehicle operating requirements detailed in these *Airside Traffic Directives*, normal traffic rules apply in Vehicle Corridors.

Head-of-stand (HOS) Vehicle Corridors are adjacent to the terminal building at the head of aircraft parking stands, hence their name. The maximum permitted vehicle height on a HOS road is **3.9 m (12.8 ft) unless otherwise posted; some HOS Vehicle Corridors** around the Domestic Terminal Building have clearances as low as **2.9 m (9.5 ft)**.

## Yield To Left and Right Markings



When presented with this marking, you must yield to traffic established in the vehicle corridor crossing an active surface.

# Airport South Operations

## Applicable to all AVOP designations

This section covers the following information specific to Airport South operations:

- [Apron I](#)
- [Apron II](#)
- [South Perimeter Road](#)
- [Taxiway Charlie \(C\)](#)
- [Beaching Gear Vehicles](#)
- [Helicopter Operations](#)

### Apron I and Apron II

Apron I (Apron One) and Apron II (Apron Two) have a mix of small, manoeuvrable and fast taxiing aircraft; and vehicle operators need to be extremely cautious when operating on these aprons. Personnel are permitted in the operating stands only when performing their duties.



## South Perimeter Road

South Perimeter Road extends from Taxiway Delta Whiskey (DW) south and then west adjacent Taxiway Foxtrot (F).

Be extra vigilant when crossing Taxiway Foxtrot (F), Taxiway Charlie (C), and the FBO ramps, and be sure to give way to all aircraft.

There are no exits between South Perimeter Road and the Millionair Apron. Vehicle access to the Millionair Apron is via Taxiway Charlie (C) south of Taxiway Foxtrot (F).

Vehicle access to the Helijet Apron is via the South Perimeter Road crossing abeam the Helijet Apron.



**AIRSIDE SAFETY:** Aircraft taxi lights will be operational prior to entering the intersection of the Helijet Apron with Taxiway Foxtrot (F). Illuminated lights indicate that the aircraft is ready to start taxiing to Helipad C or down Taxiway F, either by own power or under tow.

## Taxiway Charlie (C)



You must hold a D AVOP and obtain permission from ATC to proceed on Taxiway Charlie (C) north of Taxiway Foxtrot.

## Beaching Gear Vehicles



Beaching Gear vehicles are subject to all ATD rules.

When a beaching gear vehicle is loaded with an aircraft, it has the right-of-way over other vehicles. Once a beaching gear vehicle unloads its aircraft, it is considered to be like any other vehicle and must give way to all aircraft, emergency vehicles, etc.

When loaded with aircraft, beaching gear vehicles are not permitted on vehicle corridors or roads, and must remain on the apron or taxiway in the same manner as an aircraft.

## Helicopter Operations



When operating on Airport South, be aware of the significant number of helicopter movements in the area.

Helipads are ATC controlled surfaces and require vehicle operators to be in possession of a D AVOP and obtain clearance from ATC before entering.

Vehicles should remain at a safe distance away from helicopters, as a helicopter's rotor wash poses unique dangers with similarities to propwash and jet blast.

# Weather

## Applicable to all AVOP Designations

### Reduced and Low Visibility Operations

Vancouver Airport Authority is committed to excellence in safety in periods of reduced and low visibility our priority is to enhance protection of the runway environment from unauthorized access by aircraft, vehicles, or pedestrians

Vehicle operators must be trained in reduced and low visibility operations and comply with the provisions in these ATDs.


For full details, review the annually updated *Low-Visibility Operations Plan*.



### Runway Visual Range

The *runway visual range* (RVR) is the horizontal measurement of visibility along a runway, measured in feet. When lowering ceilings and visibility conditions indicate that the RVR on the runway will reduce as noted in the following table, the airport will be under *reduced-visibility operations* (RVOP) or *low-visibility operations* (LVOP).

| RVR on Runway                              | Procedures / Application  |
|--|---|
| Between 2,600 ft and 1,200 ft: <b>RVOP</b> | <ul style="list-style-type: none"> <li>▪ Procedures apply to runway operations and approaches, with limited impact to vehicle operations.</li> <li>▪ The airport conducts lighting inspections, places critical area signs (to protect critical ILS areas), and ensures that secondary power is operational in case RVOP are required.</li> <li>▪ All non-essential airside work will be suspended</li> </ul>   |
| Between 1,200 ft and 600 ft: <b>LVOP</b>   | <ul style="list-style-type: none"> <li>▪ Special procedures apply to vehicles and aircraft operating on the movement area.</li> <li>▪ Under low visibility operations of RVR 1200, YVR will activate flashing red lights on low visibility signs.</li> <li>▪ Implemented to minimize the movement of vehicles operating near aircraft on the movement area.</li> <li>▪ In effect for the whole airfield when any single RVR reading on the airfield measures less than RVR 1200.</li> </ul> |

| RVR on Runway   | Procedures / Application  |
|---|---|
|   | <ul style="list-style-type: none"> <li>Engine Run-ups for maintenance purposes will not be approved</li> </ul>    |
| <p>Below RVR 600 for either Runway 08L/26R or 08R/26L</p> | <ul style="list-style-type: none"> <li>Operations on the affected runway will be suspended.</li> <li>Operations on the remaining runway may continue in accordance with operational RVR limits for arrivals and departures.</li> <li>If both runways are reporting less than RVR 600, all runway operations will cease.</li> <li>Aircraft that have landed and are taxiing to the terminal gates will be permitted to continue if the pilot reports that visibility is sufficient to manoeuvre. A 'follow me' service is available on request.</li> </ul> |

**Aprons and Roadway Restrictions**

During LVOP, the taxiways listed below are radio controlled by the **Vancouver Tower**. You must have clearance and a D AVOP to cross these locations.

|   |   |                   |   |   |   |   |
|---|---|-------------------|---|---|---|---|
| V | K | R (two locations) | J | P | S | T |
|---|---|-------------------|---|---|---|---|

Access to all other manoeuvring areas must be coordinated and approved by Airport Operations.

The road / taxiway intersections listed below are controlled by stop signs only.

|    |   |    |    |    |    |    |    |    |
|----|---|----|----|----|----|----|----|----|
| N7 | Q | DR | DS | DT | DU | DV | DW | DY |
|----|---|----|----|----|----|----|----|----|

**Manoeuvring Areas**

During RVOP and LVOP, only vehicles essential to the continued operation of the airport will be authorized to operate on the maneuvering area. These operations include the following:

- Airfield inspections
- Emergency response
- Snow and ice control
- Aircraft tow
- Required airfield lighting repairs

## Free-Range Authority

Please reference the *YVR Low Visibility Operations Plan* for Free Range restrictions in Low Visibility

## Engine Run-ups

In RVOP and LVOP:

- When visibility is RVR 1200 or greater, engine run-ups are approved in accordance with *Vancouver Airport Authority Run-up Procedures* and may continue.
- When visibility is below RVR 1200, engine run-ups are prohibited on the manoeuvring area. Run-ups that do not require the aircraft to move off of the apron are approved in accordance with *Vancouver Airport Authority Run-Up Procedures*.
- YVR Airport Operations may deny run-ups in periods of RVOP LVOP at their discretion based on maintaining airfield safety requirements

NOTE: In LVOP, the ground run-up enclosure (GRE) will not be approved for run-ups. Run-ups will only be approved during LVOP if they can be performed in the location where the aircraft is sitting without repositioning in accordance with run-up procedures.

## Construction Areas

All construction on the airside will be suspended in RVOP and LVOP except in areas designated and identified in plans of operations by the Airport Authority, The Airside Safety Officer (ASO) has the authority to authorize the continuance or suspension of construction operations.

## Termination of LVOP

LVOP is terminated when the RVR has been >RVR1200 for a minimum of 15 minutes and it is forecasted to continue trending upward.

## Termination of RVOP

RVOP is terminated when the RVR has been >RVR2600 and the ceiling >200' for a minimum of 15 minutes and it is forecasted to continue trending upward.

## Thunder and Lighting (Red Alerts)

When there is a risk of lightning strikes in the vicinity of the airport, Airport Operations will issue a Yellow or Red Alert to all organizations with personnel working airside identifying the threat.

When a Red Alert is issued and in effect the following activities are prohibited:

- Fuelling / defueling aircraft
- Wearing headsets and using headsets connected to an aircraft



- Loading and unloading aircraft
- Standing in the open or under aircraft
- Embarking / disembarking passengers, unless the aircraft is already connected to the boarding bridge

## Freezing Conditions

When air temperatures below 3°C are forecast, spilling of water on aprons is strictly prohibited. All spills in these conditions must be reported to Airport Operations at 604.207.7022 and any ice or slippery conditions dealt with immediately by the parties responsible for the spill.



# Manoeuvring Area Operations

## Applicable to the D AVOP designation

This section provides information on operating in the manoeuvring area:

- [Operating Rules](#)
- [Low-Visibility Operations](#)
- [Vehicle Breakdown and Equipment Failures](#)
- [Driver Disorientation](#)
- [ILS Critical Areas](#)
- [Temporary Route Closed Barriers](#)
- [Marking of Vehicles in Manoeuvring / Controlled Area](#)
- [Driving on Manoeuvring Areas](#)

## Operating Rules

You must have a D AVOP to operate equipment in the manoeuvring area. This includes aircraft maintenance engineers (AMEs) towing or taxiing aircraft in a manoeuvring area to perform engine run-ups.

The following are the prerequisites for operating in the manoeuvring area:

- Full understanding of these ATDs
- Possession of a Restricted Radiotelephone Operator's Certificate (Aeronautical) issued by Industry Canada
- Valid D AVOP
- Radio capable of two way communication with ATC

**IMPORTANT:** A copy of the Restricted Radiotelephone Operator's Certificate must be kept on file in the Access Control Office.

A D AVOP requires extra training, driving experience, and knowledge of the airfield and aircraft operations.

## ATC Instructions

While on a controlled surface within the manoeuvring area, monitor the appropriate ATC frequency and acknowledge and comply with all instructions given by ATC.

When instructed to hold short of a runway, or when awaiting permission to cross or to proceed onto a runway, stop your vehicle a minimum of 60 m (200 ft) from the nearest edge of the runway or behind the runway hold-short line on the taxiway.



Runway end crossings on Runway 08R-26L are permitted and authorized between the following taxiways (*unless otherwise directed by ATC*):

- Taxiway Lima 4 (L4) – Taxiway Alpha (A)
- Taxiway Delta 5 (D5) – Taxiway Charlie (C)

When instructed to leave the runway, acknowledge the instruction and proceed to a position at least 60 m (200 ft) from the nearest runway edge. Once in a holding position, inform ATC that you are off the runway and give your exact position.

Flashing white runway lights are a warning signal for all vehicles to leave the runway immediately.

### One Runway, One Frequency

In a continuing effort to increase runway safety and to reduce the risk of incursions, ATC will issue instruction onto an active runway on the **TOWER frequency only** (118.7 or 119.55) - *unless otherwise advised by ATC*

**This procedure does NOT apply in the following scenarios:**

- Vehicles requiring access to a **closed** runway (for example, NOTAM closing runway for snow removal, nightly closures of North Runway from 2200-0700)
- Vehicles requesting to **cross** an active runway (drivers will stay on GROUND frequency)
- Vehicles accessing Runway 13/31 when the runway is not active for Arrivals and Departures.

### Runway Access

Follow these steps:

1. Contact the controller on GROUND frequency (121.7 or 127.15) to request routing to the runway.
2. Switch to TOWER frequency (118.7 or 119.55) at the hold-short line of the active runway or at the direction of ATC.
3. You **must** come to a complete stop before the hold-short line. Instructions onto the active runway are given on the **TOWER frequency only**. Stop prior to the hold-short line until clearance to proceed is given on the TOWER frequency.
4. Monitor TOWER frequency at all times when on the active runway.
5. Notify TOWER once you are off the runway and switch back to GROUND.

---

**AIRSIDE SAFETY:** Remember that all ATC instructions must be read back in full and must be strictly followed. If you incur onto any controlled surface, notify Tower and the ASO.

## Engine Run-ups

Performing an engine run-up involves exercising the aircraft throttles to ensure that the engines are capable of producing take-off thrust. A *run-up area* is a location on the airport where it is safe for pilots to perform these checks so the blast from the engines will do no harm or damage to other aircrafts or structures.

Pilots and aircraft maintenance crews must request approval from Airport Operations to perform a run-up. If approved, they will be given a specified location and heading to perform the check. These instructions must be followed exactly to ensure the safety of all those on the airfield.

Failure to request an authorized run-up or performing an authorized run-up at a heading different from what was specified will result in violation points against the operator's AVOP licence.

## Low-Visibility Operations

Vehicle movements in the manoeuvring area are restricted during low-visibility operations. Only essential vehicles, as authorized by the Director, Airside Operations, or designate, will be permitted into the manoeuvring area. Speed must be reduced to a level appropriate for the conditions.

## Vehicle Breakdown and Equipment Failures

If equipment fails while in the manoeuvring area, immediately notify ATC of the locations and the problem, and request assistance. If the radio fails, turn the vehicle to face the control tower and flash the headlights off and on. ATC will respond using the following light signals.

| Light signal         | Instruction                             |
|----------------------|---|
| Flashing green light | Proceed                                 |
| Steady red light     | Stop, hold your position                |
| Flashing red light   | Vacate the runway                       |
| Flashing white light | Return to starting point on the airport |

While crossing the manoeuvring area with a failed radio, hold short of each runway and wait to receive permission from ATC, via the flashing green light signal, before crossing that runway.

If both the radio and vehicle fail while in the manoeuvring area, place lit road flares or reflective safety triangles approximately 30 m (100 ft) ahead of and behind the vehicle in a line parallel to the nearest runway or taxiway as a warning to aircraft.

If the flares or reflective triangles are not likely to be seen by ATC due to obstructions (such as snow banks), place one or more flares or triangles near the vehicle where they will be clearly visible.

## Driver Disorientation

If you become lost or confused while driving airside for any reason, STOP and call ATC on the appropriate radio frequency or Airport Operations at 604.207.7022 for assistance. The Airside Safety Officer will be dispatched to your location to assist.

## ILS Sensitive and Critical Areas

The Instrument Landing System (ILS) provides an approach path for exact vertical and lateral guidance of an aircraft to the runway.

Because of the critical safety issues associated with and the sensitivity of ILS electronic equipment, all work taking place in designated ILS Critical Areas must be pre-approved by Airport Operations.

Upon approval of the work, the Airport Authority will advise the NAV CANADA Technical Operations Coordinator.

Do not enter these areas without prior approval.

To request entry into an ILS Critical Area:

- Contact Airport Operations and ask for authorization. Provide your name, organization, contact information and reason for entry, proposed site entry time, proposed site exit time, and description of work.
- Obtain authorization from Airport Operations.
- Advise ATC (121.7 MHz or 127.15 MHz) prior to entry and after exiting the area.



## Temporary Route Closed Barriers

### Barrier

A **large “X”** with white lights placed on the end of a runway or taxiway indicates that the surface is closed.



Horizontal red and white barriers are used to close taxiways, aprons or other access routes. Red obstruction beacons are present during periods of darkness



## Marking of Vehicles in Controlled Area



In addition to the vehicle beacon and marking requirements, vehicles operating in the controlled area must display approved identification numbers on each side.

The Superintendent, Airside Vehicle Operations will issue a radio call sign to every vehicle operated in the controlled area.

Vehicle Operators are responsible for ensuring that any vehicle they operate on the controlled area has an approved radio call sign and that the call sign is properly posted inside and outside the vehicle.



## Driving on Manoeuvring Area

### Driving on Runways

When given permission to cross or drive on a runway by ATC:

- Drive quickly and safely to minimize the time spent on the runway.
- Ensure you are on the appropriate Tower frequency
- Drive to the right of the runway centre line markings to enhance vehicle visibility by ATC.

---

TIP: Vehicles driving directly on the runway centre line are not clearly visible from the air. At night, they may blend in with the runway lighting.

---

### Driving on Taxiways

Use the taxiway centre line as a guide while driving on the taxiways. If a vehicle approaches in the opposite direction, position your vehicle to the right of the centre line for passing. Signs identifying runways and taxiways are usually posted to the driver's left to provide adequate warning for safe turning.

### Holding Short

Hold short of taxiways and runways as directed by ATC at the designated hold point. Stop at the intersection markings or signage or, in their absence, at least 60 m (200 ft) from the edge of the runway.

### Approaching a Hold Line

Approach a hold line slowly, thereby indicating to ATC the intention to stop and then stop approximately two car lengths before the hold line. This distance provides full view of the signs, lighting and markings and allows enough space for most vehicles to make a u-turn away from the runway if required.

# Appendices

---

## Appendix A: Special Permits and Permissions

### Free-Range Vehicles

The Director, Airside Operations has given authorization to certain Airport Operations personnel to operate free-range vehicles in the manoeuvring area. Once ATC has provided clearance, these authorized free-range vehicle operators are permitted to move about freely on the airfield, to the boundaries defined for their particular area of operation. (See *AIR 07-02 Free Range Vehicle Operation*.)

### Restricted AVOP

A Restricted AVOP is issued to personnel for irregular operations or special situations. A separate written test is administered to hold these permits. For example, Restricted AVOPs may be issued to contract staff during winter operations or construction contractors. These permits are usually issued for a defined period shorter than the usual expiration dates.

### Contractor AVOP

Contractors working for a defined period will be issued an AVOP face-card that is valid for up to a maximum of 1 year. Contractors working on specific projects will not generally be issued D/A AVOPs for the standard 5-year time period. Contractors initially and upon renewal must provide a letter stating the project they are working on and the length of the proposed work. Contractors are never to request an AVOP licence to reduce airside escorting costs.

## Appendix B: Escorting Procedures

Authorized airside escorts are contracted by Vancouver Airport Authority to escort contractors and others to and from worksites and special or irregular operations.

### Operators of Vehicles under Escort

As the operator of a vehicle under escort:

- You must be issued a “Visitor – Escort Required Block Pass” or “Pending – Escort Required RAIC. The vehicle pass must be displayed prominently on the inside of the vehicle’s front windshield.
- Operate in conjunction with the escorting vehicle and maintain a reasonable distance from the escort so that adequate supervision is provided.
- Must show proof of \$5 million liability insurance to operate airside at an airport



### Operators of Escorting Vehicles

An escort will:

- Hold a valid RAIC and AVOP for the areas in which you will be operating.
- Never leave the people or vehicles that they are escorting.
- Escort up to three vehicles on Apron VI, and up to six vehicles in all other airside areas. During snow removal, up to six vehicles involved in snow operations may be escorted by a single escort.
- Only approved Airport Authority and Gold Airside Safety Escorts are permitted to escort on the manoeuvring area. They are responsible for communicating with ATC on behalf of the vehicle or equipment operator.
- Be responsible for any accidents involving an escorted vehicle.



### Authorized Airside Escorts

Authorized escorts are limited to the following:

- Vancouver Airport Authority qualified and licensed airside escorts
- Authorized Airport Operations, Security, and Maintenance personnel
- Personnel who have been authorized in writing by the Director, Airside Operations



Airport tenants may use their qualified employees to escort on tenant-licensed areas and uncontrolled airside areas. Written permission from the Director, Airside Operations is required for tenants wanting to provide an escort in a controlled area.

**Over-height and/or Oversize** vehicles may only be escorted by employees designated as Gold or Silver Airside Safety Escorts for vehicles whose size or width does not permit it to transit via the Head-of-Stand Road. *(This does not apply to the YVR Airside Safety Officer / Air Canada CSM for waste management pick-up adjacent North Guard House / AeroMag / Fuelling Companies)*

Contractors doing construction work in airside areas must be accompanied by a certified airside escort. If vehicles are used in the escorting operation, the escort must have an AVOP. “Gold” and “Silver” escorts have received enhanced escort training that allows them to perform enhanced construction oversight duties:

- Gold designation: Taxiways/Runways
- Silver designation: Aprons

On leased property, a qualified person designated by the tenant may be used to escort tenant guests and sub-tenants. The person designated by the tenant must have a valid RAIC. Where a vehicle is used in the leased area, the escort must have a valid AVOP.

---

**IMPORTANT:** Escorted vehicles are an exception to the normal regulations governing “right-of-way”. They are treated as part of the escorting vehicle, so instead of reacting to traffic signs and markings in the normal way, they do what the escorting vehicle does (for example, they stop as a group, and then proceed together).

All operators working airside must be aware of the special rules governing escorted vehicles and escorted vehicle markings.

---

### Low-Visibility Conditions

When low-visibility operations are declared, all escorted vehicles and personnel must be escorted promptly from all airside areas.



## Appendix C: Mobile Equipment

Mobile equipment includes:

- Forklifts
- Scissor Lifts
- Skidsteer Loaders

A D/A AVOP designation is not required for mobile equipment in the bag hall (this does not include piers adjacent the airside vehicle corridors).

A D/A is required if you are driving / moving on the airside roads. Equipment can be dropped off at a location that is well marked / delineated and move within this defined area without the operator having a D/A.

## Appendix D: Vehicle Requirements

All vehicles must meet the requirements noted in this section while operating airside. Vehicles that do not meet these minimum requirements must be specifically exempted by the Superintendent, AVOP.

All equipment operating airside shall be properly equipped as set out in the *Canada Labour Code, Canada Occupational Health and Safety Regulations*.

This section covers the following:

- [Vehicle Beacons](#)
- [Vehicle Markings](#)
- [Over-height Vehicles](#)
- [Vehicle Insurance](#)
- [Vehicle Maintenance](#)

### Vehicle Beacons



- All vehicles operating in the movement area must be equipped with a rotating or flashing orange beacon mounted on the roof.
- Vehicles with a partially enclosed cab must mount an orange beacon wherever possible.
- Vehicles that do not have a cab or vehicles without a beacon that are under escort are required to use their four-way flasher lights instead.
- When a trailer is in use, all lights must be activated.
- All vehicle lighting must be kept in working order, including headlights, tail lights, hazard lights, and rotating/flashing beacons, and must be turned on whenever the vehicle is being operated.
- Headlights must be switched on during the hours of darkness, including dusk and dawn or in poor-visibility conditions. The use of high-beam headlights is prohibited unless to contact ATC in case of radio failure.



- Affixing decorative vehicle lighting to a vehicle interior or exterior is strictly prohibited on airside surfaces.
- All vehicles operating on controlled surfaces are required to have a working beacon, without exception.

## Vehicle Markings

Company logos or the company name must be displayed on both sides of the vehicle. All lettering must be at least 4 inches (10.2 cm) in height. Logos must be at least 8 inches (20.3 cm) in height. Company vehicles should also be identified with a unique number clearly displayed on the vehicle.

## Over-height Vehicles

Vehicles that are 2.0 m (6.5 ft) or higher are considered over-height vehicles. The height of over-height vehicles must be posted in meters within view of the vehicle operator. Operators of over-height vehicles are liable for any structures, aircraft, or equipment struck and damaged by their roof or roof-mounted equipment.

Haul vehicles greater than 9 feet in height transiting through the RWY 08L/26R Approach Surface or the Clearway for RWY 26R on the West Dyke Road must adhere to specific procedures to ensure safe and efficient runway operations. Please reference *Operations Procedure AIR 10-01 Overheight Haul* for further details.

## Vehicle Insurance

Vehicles operating airside must have automobile insurance specifying coverage for airside driving. In most cases, this coverage is an additional endorsement on a standard policy.

NOTE: All vehicles operating airside must have a minimum of \$5,000,000 third-party legal liability coverage. The Certificate of Insurance must state "coverage provided for Vehicle Operations airside at an airport."

For annual vehicle decal renewals:

- Upon request from the Access Control Office, a hard copy or electronic copy of the *Application for Airport Restricted Area Vehicle Pass* is issued along with a checklist of requirements for all new and renewal applications.
- All requirements must be met prior to the decal being issued.
- Temporary, no escort required, vehicle plates are issued for renewal applications only (for a period of 1 month) if the current decal is expiring.
- No reminders are sent out to the company as the decal has the expiry date printed on it.
- Security staff at the guard houses will check the validity of decals. If the vehicle decal is expired, the vehicle will not be permitted to operate airside.

For vehicles with fleet insurance coverage:

- Companies with fleet insurance must notify the Access Control Office. Each vehicle in the fleet does not require a separate decal.
- An annual reminder notice is sent to all companies with fleet insurance coverage, 1 month prior to their expiry date, to request a copy of their updated certificate of insurance. Copies are kept at the Access Control Office.
- Security staff at the guard houses will have an updated list of all companies with fleet insurance.



## Appendix E: Radio Procedures

### Radio Certificate Examinations:

Industry Canada Aeronautical Examinations are administered using RIC21 as the Study Guide.

#### Microphone:

- Hold the background-noise-cancelling microphone as close to the lips as possible.
- Hold most other microphones approximately 6.5 cm (2–3 in.) in front of the mouth.

#### Articulation:

- Listen first to ensure that you will not interrupt another transmission.
- Then depress the “press to talk” (PTT) switch before beginning to speak, and keep it depressed for the entire transmission. Avoid clicking on and off.
- When the transmission is finished, release the PTT switch.

#### Techniques:

- Speak plainly and distinctly to prevent running consecutive words together.
- Do not shout, accentuate syllables artificially, or speak too rapidly.
- Keep conversation short and choose the right words. Use standard procedure words and phrases, and standard airport terminology.
- Always repeat **hold short** instructions followed by the vehicle’s call-sign.
- When in the manoeuvring area, monitor the radio at all times. Do not leave a vehicle radio unattended while in the manoeuvring area except with the specific permission of ATC.
- Advise ATC when your vehicle has exited the manoeuvring area.
- Report completion of an activity only after it has been completed. For example, report being **off** a runway only after your vehicle is at least 60 m (200 ft) away from the runway edge, not while you are still in the process of leaving.
- Ensure that you fully understand all instructions given by a controller before entering within 60 m (200 ft) of an aircraft manoeuvring area or crossing an active runway.
- In addition to any permission given by radio to proceed into or within the manoeuvring area, check visually to ensure that you will not interfere with any aircraft on or approaching the path you have been given permission to follow.
- Always use the correct radio call sign for the vehicle you are operating in every radio transmission.
- Never assume anything. Reconfirm when necessary.
- Only aircraft in the process of flight or completion of landing and Ground Controllers should be using the term “clear” or “clearing” while operating on the airfield. When operating a vehicle, including one towing aircraft, use the terms “vacated” or “off” when reporting to ATC that you are no longer on the taxiways or runways.

## ICAO Phonetic Alphabet and Numbers

Always use the ICAO phonetic alphabet when phonetics is required for clarity in radiotelephone communications. Stress the syllables printed in CAPITAL letters.

| Letter | Word    | Pronounced  | Letter | Word     | Pronounced   |
|--------|---------|-------------|--------|----------|--------------|
| A      | Alpha   | AL fah      | N      | November | No VEM ber   |
| B      | Bravo   | BRAHVOH     | O      | Oscar    | OSS cah      |
| C      | Charlie | CHAR lee    | P      | Papa     | pah PAH      |
| D      | Delta   | DELL ta     | Q      | Quebec   | keh BECK     |
| E      | Echo    | ECK oh      | R      | Romeo    | ROW me oh    |
| F      | Foxtrot | FOKS trot   | S      | Sierra   | see AIR rah  |
| G      | Golf    | GOLF        | T      | Tango    | TANG go      |
| H      | Hotel   | hoh TELL    | U      | Uniform  | YOU nee form |
| I      | India   | INdeeah     | V      | Victor   | VIK tah      |
| J      | Juliet  | JEW lee ETT | W      | Whiskey  | WISS key     |
| K      | Kilo    | KEY loh     | X      | X-Ray    | ECKS ray     |
| L      | Lima    | LEE mah     | Y      | Yankee   | YANG kee     |
| M      | Mike    | MIKE        | Z      | Zulu     | ZOO loo      |

Pronounce numbers as:

| Number | Pronounced | Number | Pronounced |
|--------|------------|--------|------------|
| 0      | ZERO       | 5      | FIFE       |
| 1      | W UN       | 6      | SIX        |
| 2      | TOO        | 7      | SEV en     |
| 3      | TREE       | 8      | AIT        |
| 4      | FOW er     | 9      | NIN er     |

## Standard Procedures and Words

While it is not practical to lay down a precise phraseology for all radiotelephone procedures, the following words and phrases should be used where applicable. Do not use words and phrases such as "OK", "REPEAT", "HOW IS THAT", "CLEAR," or slang expressions.



| Word or Phrase               | Meaning  |
|------------------------------|--|
| ACKNOWLEDGE                  | Let me know that you have received and understood this message.  |
| AFFIRMATIVE                  | Yes, or permission granted.  |
| CONFIRM                      | My version is...is that correct?   |
| CORRECTION                   | An error has been made in this transmission (or message indicated). My correct version is...                         |
| HOW DO YOU READ?             | Can you hear and understand me?  |
| I SAY AGAIN                  | I will now repeat my last word (sentence) for clarification.   |
| NEGATIVE                     | No, or permission is not granted, or that is not correct, or I do not agree.   |
| OVER                         | My transmission is ended, and I expect a response from you (normally used only under poor communication conditions). |
| OUT                          | This conversation is ended and no response is expected (normally used only under poor communication conditions).     |
| READ BACK                    | Repeat all, or the specified part, of this message back to me exactly as received.                                   |
| ROGER                        | I have received all or your last transmission.   |
| SAY AGAIN                    | Repeat all, or the following part, of your last transmission. (Do not use the word "Repeat.")                        |
| SPEAK SLOWER                 | (self-explanatory)   |
| STANDBY                      | Wait and listen. I will call you again.  |
| THAT IS CORRECT              | (self-explanatory)   |
| VERIFY                       | Check text with originator and send correct version.   |
| WHAT IS YOUR REQUEST/MESSAGE | (self-explanatory)   |

## Call-up Procedures

A "call-up" is a procedure used to establish two-way communication between an airport vehicle and ATC. Before making a "call-up," listen out to avoid cutting into a transmission from other users. Proceed only when the frequency is not being used by others. A call-up is only necessary for initial contact with ATC and should not be repeated for subsequent communications unless a significant amount of time has passed since the previous transmission.

A call-up consists of the call sign of the station being called, and the identification of the station from which the call is made.

On call-up, always use the call sign of the station called. If you do not receive a response to your call-up, wait a reasonable time and call again.



Example: “Vancouver South Ground, Staff Four Six”

### **Acknowledgements**

An acknowledgement means a transmission has been received and understood. Always acknowledge the transmission by repeating it back to ATC.

Example: “North Ground, Staff Two Niner, Roger”

### **End of Transmission**

To end any two-way communication, say the name of the vehicle call sign.

Example: “Grader One Seven Four

### **Standard Phraseologies**

Standard phraseology has been developed through years of practice to transmit instructions and messages most efficiently and without misunderstanding, using the fewest words. Some examples follow:

- Authorization request and response:

Vehicle Operator: “North Ground, Staff 32.”

ATC: “Staff 32, North Ground.”

Vehicle Operator: “North Ground, Staff 32 on or at Baggage Road, request permission to proceed to Apron VI Hotel, Lima.”

ATC: “Staff 32, proceed to Apron VI via Hotel, Lima.”

Vehicle Operator: “Proceeding to Apron VI via Hotel, Lima, Staff 32.”

- If the request for permission to proceed is denied, response from ATC will start with the work “NEGATIVE.” For example:

ATC: “Staff 32, NEGATIVE. Hold your position.”

- Authorization request when accompanying a non–radio-equipped vehicle:

Vehicle Operator: “South Ground, Staff 32 plus One, request permission to proceed to ... etc.”

Use of the term “plus one” or “plus two” indicates to ATC the number of vehicles in the group.

- Control instructions:

“Proceed onto runway 13-31 for inspection, advise when off the runway.”

“Hold short Runway 31.”

“Truck Eight Three, North Ground, vacate Runway 13-31 at Lima and report when off the runway.”



## Radio Test Procedures

On-the-air radio tests, when necessary, should be short (not more than 10 seconds). Do not interfere with other communications. The readability of signals may be reported in plain language, the most often is reported according to the following scale:

1. Unreadable
2. Readable now and then
3. Readable but with difficulty
4. Readable
5. Perfectly readable

Examples of radio check communications:

Vehicle Operator: "North Ground, Staff Two Seven, Radio Check"

ATC: "Staff Two Seven, North Ground, Radio Checks" or, "Staff Two Seven, North Ground, Commence Test Count"

Vehicle Operator: "Test Count, One, Two, Three, Two, One". Ground Control: Read You Five."

## Appendix F: Glossary of Terms and Abbreviations

**Aerodrome** – any area used either in whole or in part for the arrival and departure, movement, or servicing of aircraft, including any related buildings, installations, and equipment.

**Airfield and Emergency Services (AES)** – Vancouver Airport Authority Airfield and Emergency Services.

**Air Traffic Control (ATC)** – service provided by NAV CANADA to control aircraft and vehicle movements in the manoeuvring area. At YVR, the ATC unit is located in the control tower.

**Airport** – aerodrome in respect of which a Canadian aviation document, issued pursuant to the *Aeronautics Act*, is in force.

**Airside** – all areas inside the perimeter security fences of the airport, as defined in the *Aerodrome Security Regulations*.

**Airside Escort** – person authorized to escort persons and vehicles into the restricted and / or controlled areas of the airport.

**Airport Operations** – Vancouver Airport Authority department responsible for overall operations, security, safety management, and emergency response at the airport.

**Airside Vehicle Operations** – entity within Airport Operations that administers the AVOP program, airside vehicle permits, and airside vehicle parking.

**Airside Traffic Directives (ATDs)** – the directives set out in this manual, as amended or revised from time to time.

**Apron** – the part of the airside area used for loading, unloading, and servicing aircraft, as well as for vehicle, passenger, and other pedestrian movement. Aprons at YVR are uncontrolled.

**Airside Vehicle Operator's Permit (AVOP)** – the authorization required to operate a vehicle within the airside area airport. The four types of AVOPs are referred to as D/A AVOP, D/A Green AVOP, D AVOP, and Free Range.

**Controlled Area** – an airside area that cannot be entered unless clearance has been obtained from ATC.

**Controlled Taxiway** – a taxiway under the control of ATC. Only vehicles operated by, or escorted by, the holder of a D AVOP may enter or cross a controlled taxiway. Obtaining clearance from ATC is mandatory prior to entering or crossing a controlled taxiway.

**Critical Area** – a part of the aerodrome containing navigation aids, communications equipment, and sensitive electronic equipment that, if interfered with, will directly affect the safe operation of aircraft and vehicles.

**Director, Airside Operations** – person in charge of Airside Vehicle Operations and the issuing authority for AVOPs.

**Enforcement Personnel** – authorized staff of the RCMP, Vancouver Airport Authority Airport Operations / Security, and any other person appointed by the Director, Airside Operations.



**Foreign Object Debris/Damage (FOD)** – any debris or litter that could cause harm to an aircraft either by striking the aircraft, acting as an obstruction, or being ingested in an engine. FOD may also be harmful to airside personnel, particularly when entrained by jet blast or prop wash. Examples of FOD are paper, plastic, nails, metal scraps, pallets, gravel, and mud. FOD is often brought airside on vehicle tires.

**Free-Range Vehicle** – the Director, Airside Operations has given authorization to certain Airport Operations personnel and contract staff to operate free-range vehicles in the manoeuvring area. Once ATC has been informed, these authorized free-range vehicle operators are permitted to move about freely on the airfield, to the boundaries defined for their particular area of operation.

**Glide Path** – part of the Instrument Landing System that transmits a beam to the plane at right angles to the localizer beam at the ideal approach-path angle.

**Ground Control** – an ATC service provided by an airport controller to aircraft and vehicles to prevent collisions / conflicts on taxiways between aircraft and between aircraft and vehicles. Radio communication with Ground Control takes place on two frequencies according to the zone of the airport in which a vehicle is operating: North Ground Control is on 127.15 MHz, and South Ground Control is on 121.70 MHz.

**Head-of-Stand (HOS) Road** – vehicle corridor that passes underneath the bridges located between the nose of the aircraft and face of the terminal building.

**Horseshoe** – a portion of Apron VI between the B and C piers on the west side of the Domestic Terminal Building. Since vehicle corridors do not exist in the horseshoe, additional vehicle rules apply in this area.

**Instrument Landing System (ILS)** – landing aid for aircraft that uses radio beacons on the ground and instruments on the flight deck. One beacon (localizer) sends out a vertical radio beam along the centre line of the runway. Another beacon (glide slope) transmits a beam to the plane at right angles to the localizer beam at the ideal approach-path angle. The pilot can tell from the instruments how to manoeuvre to attain the correct approach path.

**Localizer** – part of the Instrument Landing System that sends out a vertical beam along the centre line of the runway and helps the pilot to remain lined up with the runway during an instrument approach.

**Low-Visibility Operations** – low-visibility conditions in which the runway visual range (RVR) is 1200 ft (366 m) or less, but greater than 600 ft (183 m). Extra restrictions are placed on airside vehicle operators during low-visibility operations.

**Manoeuvring Area** – a subset of the movement area used for the take-off and landing of aircraft and for the movement of aircraft associated with take-off and landing. It comprises all of the runways, helipads, and most taxiways at YVR, all of which are controlled surfaces. (See the definition for *controlled area*.)

**Markings and Signs** – painted markings, traffic signs, and lights used to ensure the safe and efficient movement of aircraft, vehicles, and pedestrians in airside areas.

**Movement Area** – all controlled and uncontrolled areas of the aerodrome provided for the movement of aircraft. The manoeuvring area is a sub-set of the movement area.

**Operational Stand** – an area of the apron where aircraft are parked and serviced for flights, and where passengers enplane and deplane. Operational stands may have bridges or pedestrian corridors painted on the apron between the stand and the entrance to the terminal building.

**Over-Height Vehicles** – vehicles that are 2.0 m (6.5 ft) or higher are considered over-height vehicles. The height of over-height vehicles must be posted in metres within view of the vehicle operator. Operators of over-height vehicles are liable for any structures, aircraft, or equipment struck by their roof or roof-mounted equipment.

**Pushback** – procedure in which a tug moves an aircraft backward from an operational stand to its engine-start position.

**Restricted Area** – an area, normally designated by a security gate or sign, where entry is restricted to persons authorized by Vancouver Airport Authority. All airside areas are restricted areas and individuals entering these areas must display a Restricted Area Identification Card or be accompanied by an airside escort.

**Restricted Area Identification Card (RAIC)** – a document issued under the authority of Vancouver Airport Authority that entitles the holder to have access to a specific restricted area during a specified period. The RAIC must be displayed at all times when airside. If the holder of a RAIC also has a valid AVOP, the letters D/A, D/A Green, or D will be printed on the RAIC or a face card.

**Road** – a dedicated surface, excluding vehicle corridors on aprons and across taxiways and runways, on which vehicles are authorized to travel.

**Runway Incursion** – any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft.

**Runway Stop Bars** – a single row of flush or semi-flush red inset lights installed laterally along the runway holding position marking of Runways 08L/26R and 08R/26L. Aircraft and vehicle operators who are required to proceed onto Runway 08L/26R or 08R/26L must obtain clearance from ATC and proceed only when the red stop bar lights are turned off. Under no circumstances will an aircraft or a vehicle cross an illuminated stop bar.

**Superintendent, AVOP** – the person who administers the AVOP program and oversees the *Airside Traffic Directives*. Appeals of violations of the *Airside Traffic Directives* are handled through the Superintendent, AVOP.

**Surface Movement Guidance and Control System (SMGCS)** – signage, lighting, and markings that enhance taxiing capabilities in low-visibility conditions and reduce the potential for runway incursions.

**Tail-of-Stand (TOS)** – area behind the tails of aircraft at the operating stands, extending to the tail clearance/yield line. Operators must be cautious when operating tail-of-stand, as aircraft may push back from the stands. Vehicle operators must not drive behind aircraft when aircraft engines are operating.

**Taxiway** – defined path on the aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including: (a) taxi-lanes at



operational stands; (b) high speed taxiways; and (c) the pathway for the air, hover, or ground taxiing of helicopters.

**Taxiway Incursion** – unauthorized entry onto a controlled taxiway.

**Uncontrolled Area** – area in which vehicle movement is permitted without clearance from ATC.

**Uncontrolled Taxiway** – taxiway that is not under the direct control of ATC. An AVOP holder may use an uncontrolled taxiway without clearance from ATC, but aircraft always have the right-of-way.

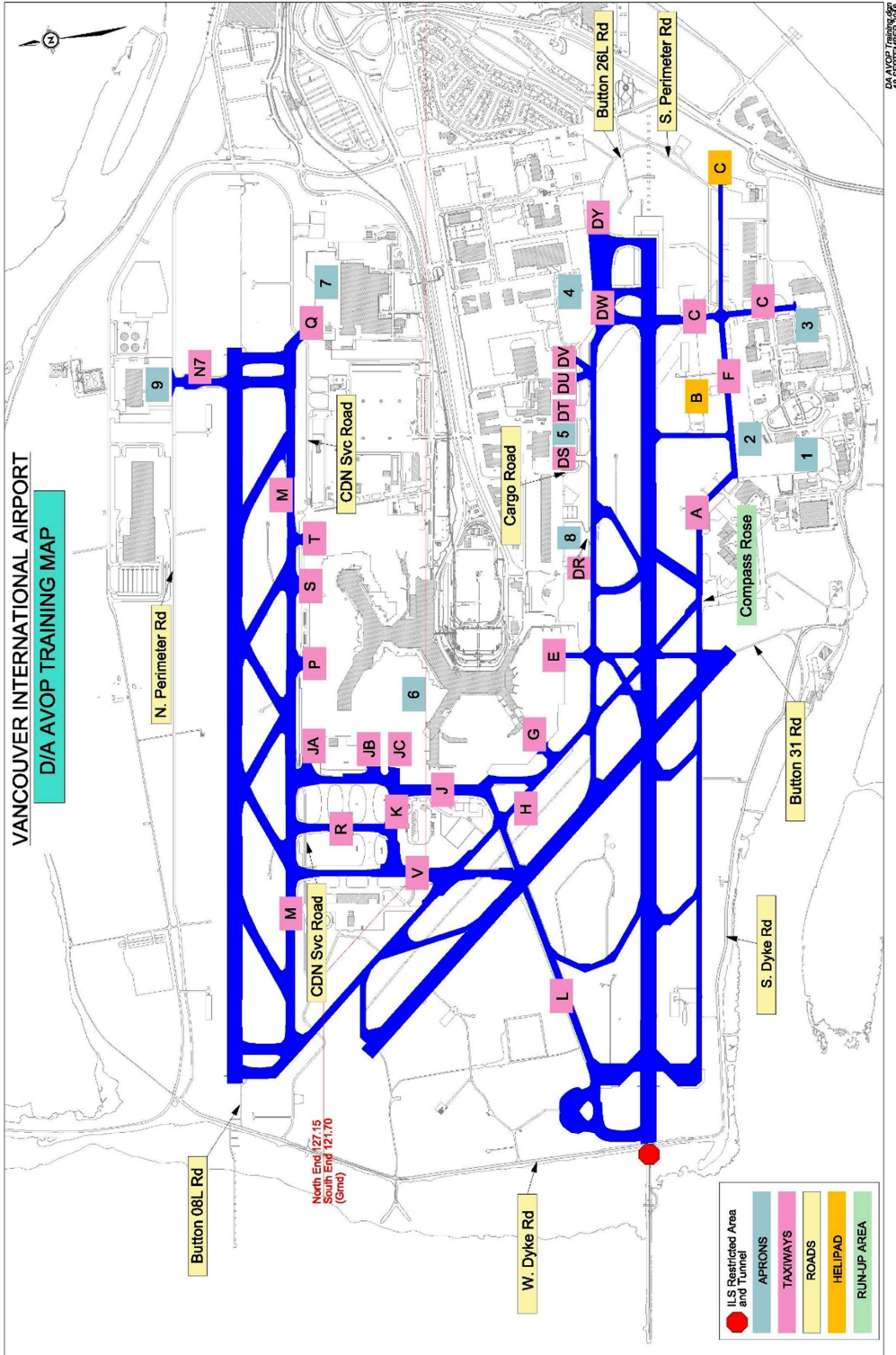
**Vehicle** – a conveyance used to transport personnel and/or cargo. Examples include tugs, cars, trucks, vans, buses, and aircraft beaching gear.

**Vehicle Corridor** – part of the apron identified with painted lines in which vehicles are authorized to travel.

## Appendix G: Radio Frequencies and Phone Numbers

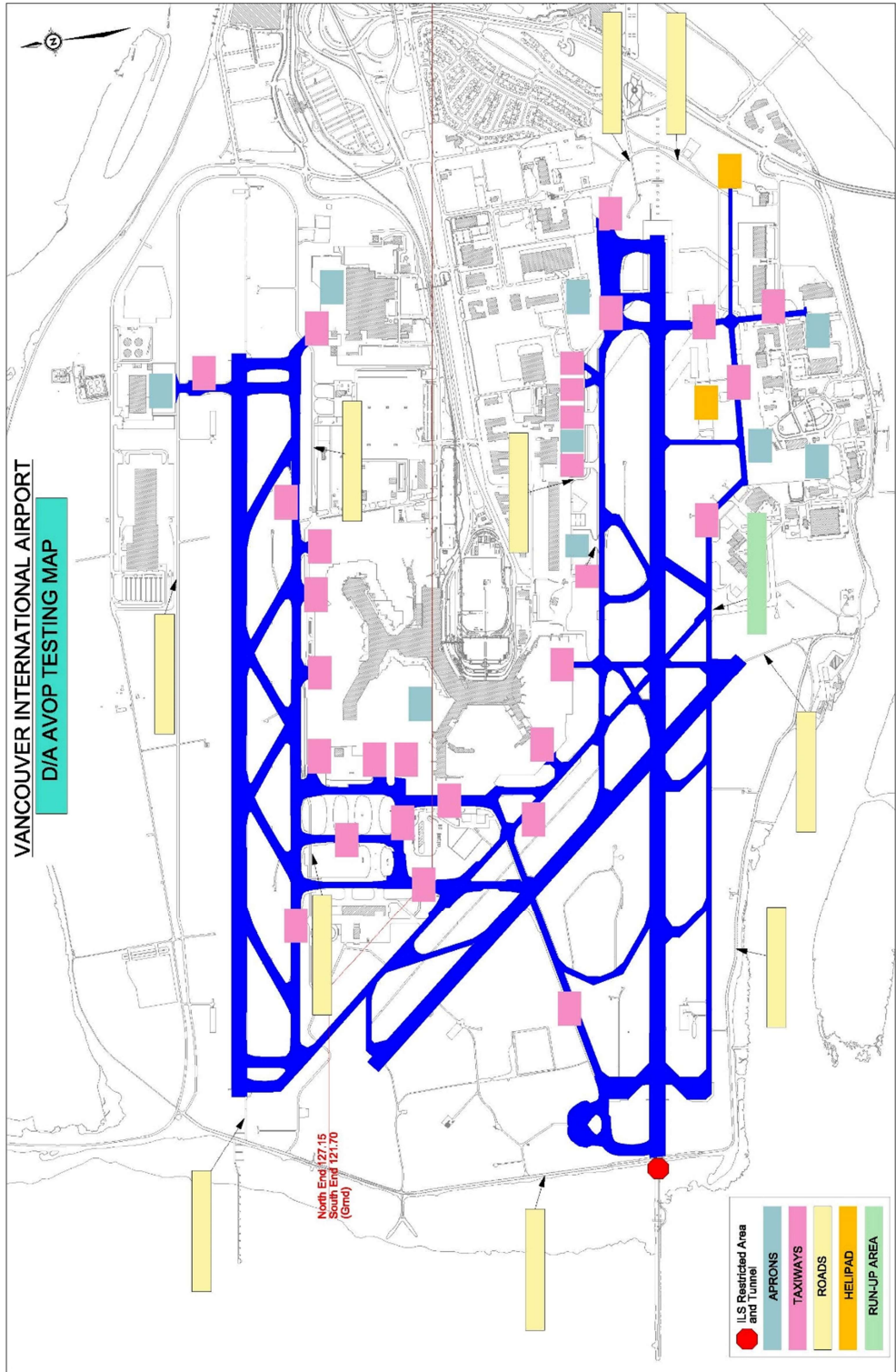
| <b>NAV CANADA Radio Frequencies</b> |                        |
|-------------------------------------|------------------------|
| North Ground                        | 127.15 MHz             |
| South Ground                        | 121.70 MHz             |
| North Tower                         | 119.55 MHz             |
| South Tower                         | 118.7 MHz              |
| ATIS                                | 124.60MHz              |
| <b>Phone Numbers</b>                |                        |
| Airport Operations                  | 604.207.7022           |
| Airside Vehicle Operations          | 604.276.6774           |
| Access Control                      | 604.276.6177           |
| All emergencies                     | 911, then 604.207.7022 |

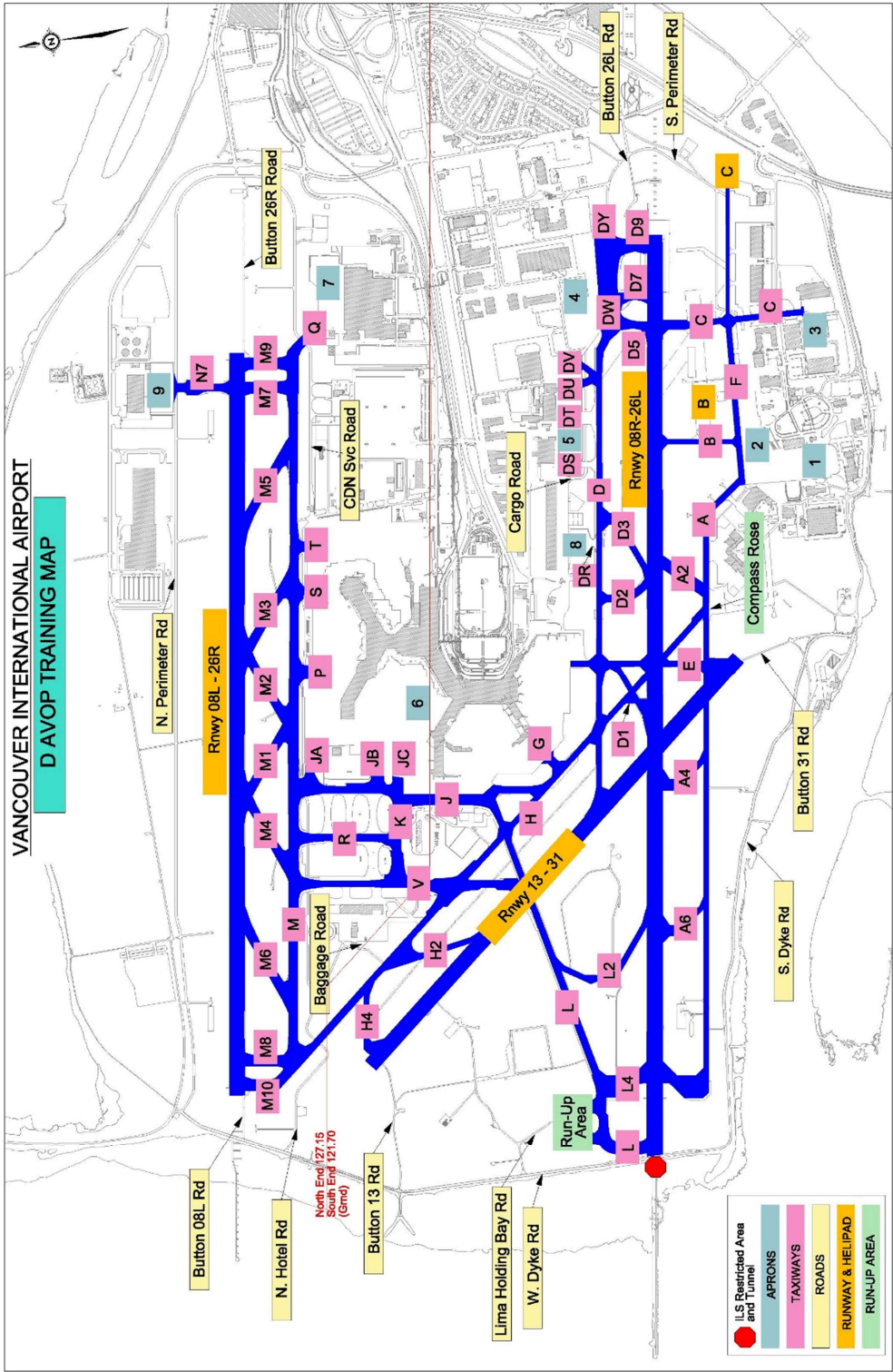
# Appendix H: Training Maps

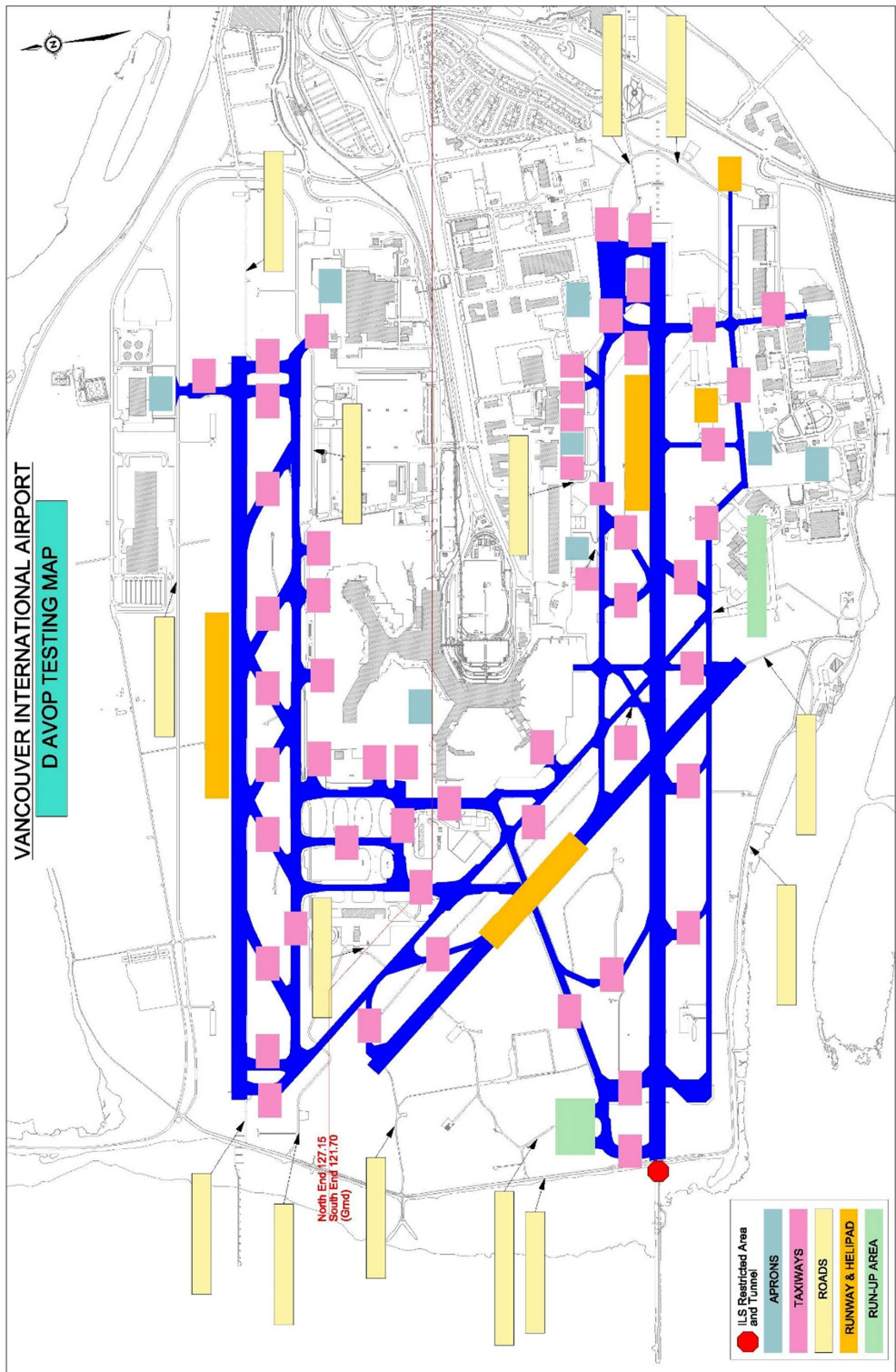


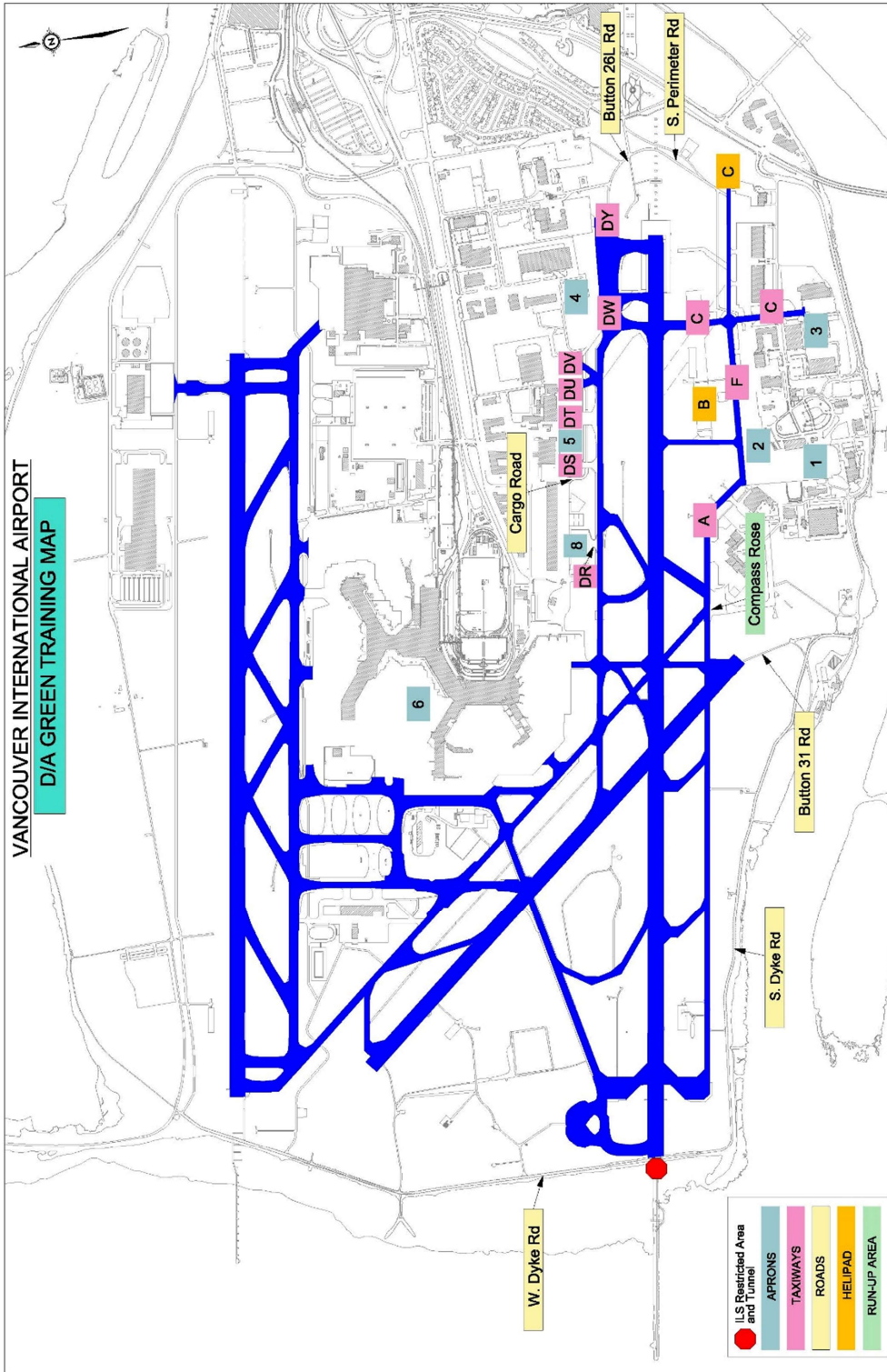
19 SEP 2018 10:06 AM

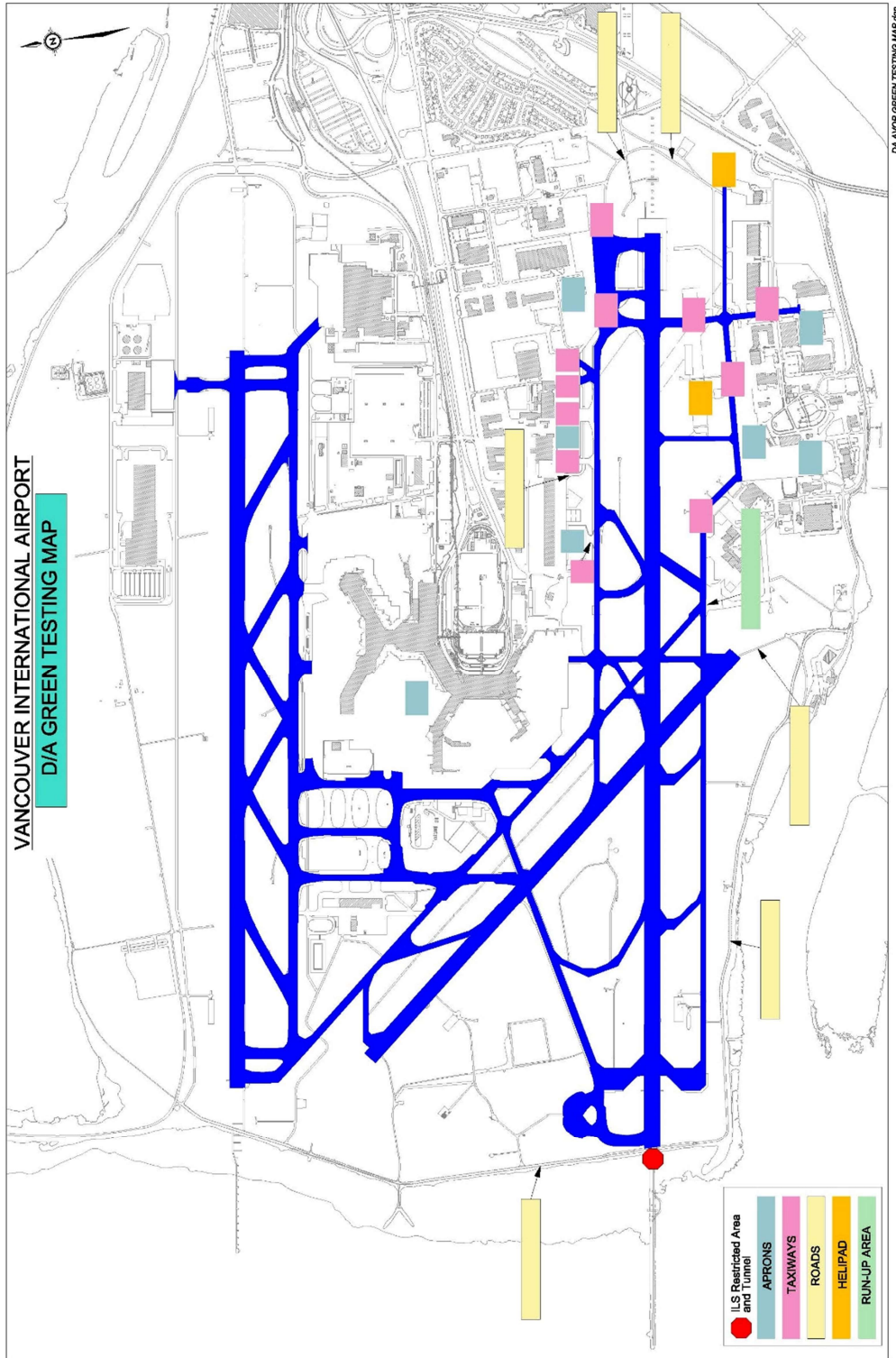














## Appendix I: AVOP Application

Available to download from [www.yvr.ca](http://www.yvr.ca)



### Vancouver Airport Authority Application for Airside Vehicle Operators Permit (AVOP)

|   |   |  |  |
|---|---|--|--|
| <b>APPLICANT</b> (Allow 3 working days for processing)  |   |  |  |
| Surname   |   | First Name   | Middle Name(s)                             |
| Address   |   |  |  |
| City/Province/Postal Code   |   | Phone Number   | Email                                      |
| <b>TESTING (choose one)</b> New <input type="checkbox"/> Renewal <input type="checkbox"/>   |   |  |  |
| <input type="checkbox"/> D/A  | <input type="checkbox"/> D/A Green        | <input type="checkbox"/> D   | <input type="checkbox"/> Free Range        |
| Practical test completed by:  |   | * Note D testing requires a copy of VHF Aeronautical Radio Operators Certificate |  |
| <input type="checkbox"/> YVR AVOP Office  |   |  |  |
| <input type="checkbox"/> Company Examiner   |   |  |  |
| <b>PROVINCIAL / TERRITORIAL / STATE DRIVER'S LICENSE</b>  |   |  |  |
| Jurisdiction  | Class                                     | License Number   |  |
| Please provide a photo copy of Driver's License both front and back (original to be verified at time of testing) <input type="checkbox"/>   |   |  |  |
| <b>AIRPORT RESTRICTED AREA IDENTIFICATION CARD (RAIC)</b>   |   |  |  |
| YVR ID Number   |   | Company  |  |
| <input type="checkbox"/> Temporary  |   | <input type="checkbox"/> Permanent   |  |
| I hereby certify that, to the best of my knowledge, all the information provided above is correct.  |   |  |  |
| Signature:  |   | Date: YYYY / MM / DD   |  |
| <b>EMPLOYER STATEMENT</b>   |   |  |  |
| Company   |   |  |  |
| Address   |   |  |  |
| City  | Province                                  | Postal Code  |  |
| Telephone Number  | Email                                     |  |  |
| An Airside Vehicle Operator's Permit is required for the above named person to perform the duties of their assigned position. They have been trained in the AVOP procedures as outlined in the Airside Traffic Directives by a certified trainer as assigned by this company. |   |  |  |
| Authorized Trainer (Print Name) _____   |   | Trainer (Signature) _____  |  |
| Company Signing Authority (Please Print Name) _____   |   | Company Signing Authority (Signature) _____                                      |  |
| <b>FOR YVR &amp; Company Examiners USE ONLY</b>   |   |  |  |
| <b>Knowledge Test</b>   | <input type="checkbox"/> Pass             | <input type="checkbox"/> Fail YYYY / MM / DD                                     | <input type="checkbox"/> X2 YYYY / MM / DD |
| YVR Representative  |   |  | Date                                       |
| <b>Practical Test</b>   | <input type="checkbox"/> Pass             | <input type="checkbox"/> Fail YYYY / MM / DD                                     | <input type="checkbox"/> X2 YYYY / MM / DD |
| Examiner Name (please print)  | Signature                                 | Date   |  |
| 1 <sup>st</sup> Exam Date: YYYY / MM / DD   | 2 <sup>nd</sup> Exam Date: YYYY / MM / DD | 3 <sup>rd</sup> Exam Date: YYYY / MM / DD  |  |



**APPLICATION for a VEHICLE CALL SIGN NUMBER**

|  |  |                                 |
|--|--|---------------------------------|
| Authorizing Company:   |  |                                 |
| Registered Department:   |  |                                 |
| Address of Owner:  |  |                                 |
| Phone Number:  | Fax Number:                                  | E-mail:                         |
| <b><u>Vehicle Information</u></b>  |  |                                 |
| Vehicle Description: Make:   |  | Model:                          |
| V.I.N. Number:   |  | Company I.D. Number:            |
| Capacity Rating (If a Truck):  |  | License Plate Number:           |
| Airside License Number:  | Expiry Date:                                 | Year / Month / Day              |
| This vehicle is radio equipped: Yes <input type="checkbox"/> No: <input type="checkbox"/>  |  |                                 |
| Approved Beacon: Yes: <input type="checkbox"/> No: <input type="checkbox"/> Company Logo or Name: Yes: <input type="checkbox"/> No: <input type="checkbox"/> |  |                                 |
| <b><u>Assigned Vehicle Identification</u></b>  |  |                                 |
| Generic Identifier and Number:   |  | Number                          |
| Permanent: <input type="checkbox"/>  | Temporary: <input type="checkbox"/>          | Expiry Date: Year / Month / Day |
| Position of Numbers:   | Left & Right Sides: <input type="checkbox"/> | Back: <input type="checkbox"/>  |
| <b><u>AVOP Office Information</u></b>  |  |                                 |
| Issuing Officer: Name:   |  | Signature                       |
| Position:  | Date of Issue:                               | Year / Month / Day              |
| <b><u>Cancellation of Identifier</u></b>   |  |                                 |
| Date of Cancellation: Year / Month / Day   |  |                                 |
| Reason:  |  |                                 |
| <b><u>Additional Comments:</u></b>   |  |                                 |
| Revised: Sept. 2015  |  |                                 |

Return to: AVOP Department, c/o Access Control Office, DTB Room 1111-3880 Grant McConachie Way, Richmond, B.C. V7B 1Y7



## Appendix J: Study Guide

Vancouver International Airport

# AIRSIDE TRAFFIC DIRECTIVES

April 2017

# D/A AVOP STUDY GUIDE

Superintendent, Airside Vehicle Operations

VANCOUVER AIRPORT AUTHORITY, RICHMOND, BC  
AVOP TELEPHONE 604.276.6774 EMAIL [avop@yvr.ca](mailto:avop@yvr.ca)





# Introduction

---

Welcome to the YVR *Airside Traffic Directives Study Guide*. This guide is intended to go hand in hand with the Airside Traffic Directives (ATDs), to help you prepare for and be successful with passing your D/A knowledge test.

## Steps for Success

The following steps are helpful while reading the Airside Traffic Directives (ATDs):

- Read the entire ATDs (except Manoeuvring Area Operations) from start to finish as the test can contain any of the content .
- Ask your company trainer if you don't understand any sections or need further clarification with any of the content.
- Take notes or highlight areas you feel are important and go back to them as you study.

Pay special attention to the following:

- All boxes marked "Airside Safety"
- Glossary of Terms and Abbreviations
- All signs and road markings
- Speed Limits
- Controlled and Uncontrolled Taxiways
- Reduced and Low Visibility Operations

Don't forget to fully learn all locations on the D/A AVOP map on page 80.

---

**IMPORTANT:** You must read the current edition of the Airside Traffic Directives (ATDs) and fully and clearly understand it and your responsibilities for airside vehicle operations.

---

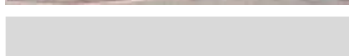
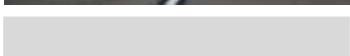
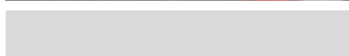
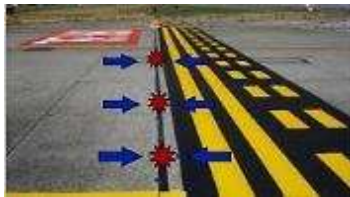
# Signs & Markings

Label the following signs and markings with their descriptions.

- Aircraft Lead-In Lines
- Apron Passenger Path Lines
- Bridge Safety Lines
- Mandatory Instruction Signs
- Runway Edge Lights
- Stop Bars
- Taxiway Directional Signs
- Taxiway Intersection Lines
- Zipper Lines

- Aircraft Start Boxes
- Apron Safety Lines
- Helicopter Parking
- Manoeuvring Area Delimitation Line
- Runway Hold Lines
- Stop Lines
- Taxiway Edge Lights
- Taxiway Location Signs

- Aircraft Taxi Lines
- Bridge Return Circle
- Hydrant Fuelling Pit
- Pedestrian Crosswalks
- Runway Markings
- Tail/Wingtip Clearance Lines
- Taxiway Edge Markings
- Vehicle Corridor





# Practice Questions

---

Find and learn the answers to the following questions:

- Define Movement Area?
- Define Manoeuvring Area?
- Define Controlled Area?
- Define Uncontrolled Surface?
- Define Airside Area?
- Define Vehicle Corridor?
- All spills must be reported to Airport Operations at what telephone number?
- What indicates an Emergency Responder Controlled Access Area?
- Are aprons at YVR controlled or uncontrolled?
- Are all taxiways entering and exiting Apron 6 controlled or uncontrolled?
- Are helipads like runways?
- What do Bridge Return Circles look like?
- What do Bridge Safety Lines look like?
- What do Apron Safety Lines look like?
- What do Helipad Hold Short Markings look like?
- What does the Tail or Wing-tip Clearance Line look like?
- What do Runway Mandatory Instruction Signs look like?
- What do Runway Stop Bars look like?
- What do Taxiway Edge Markings look like?
- What do Taxiway Directional Signs look like?

REMEMBER: All answers to the questions in this study guide can be found within the Airside Traffic Directives (ATDs).

- What do Taxiway Locator Signs look like?
- What do Runway Hold Lines look like?
- What do Taxiway Centre Lines look like?
- In what situations should drivers reduce their speed?
- What color are Runway Edge Lights?
- What color are Taxiway Edge Lights?
- Vehicle corridors are marked on the apron surface by?
- What color lights do Emergency Vehicles display?
- Can you still drive airside with your AVOP if your BC Driver's License has been suspended?
- Who do you need to notify if your vehicle becomes unserviceable airside?
- In low visibility operations, when do all airside operations cease?
- In the domestic horseshoe, what must vehicles do before crossing the tail clearance line?
- When can you drive or park between the bridge safety lines and bridge return circles?
- Is passing on vehicle corridors permitted?
- To support anti-idling, when should you turn off your engine after stopping?
- How many units can a vehicle tow on Apron VI?
- What does Signage with flashing red lights on roadways that cross controlled taxiways indicate?
- What is prohibited airside?
- Manoeuvring Areas include what surfaces?
- What is the maximum height on the ITB head of stand road?



- What is the speed limit on all aprons?
- What is the speed limit on airside roads?
- What is the speed in all tunnel ramps and head-of-stand roadway between B & C piers?
- What is the speed in baggage make-up areas?
- What is the speed limit on uncontrolled taxiways?
- What are the uncontrolled taxiways?
- What must a driver have to drive on a maneuvering area?
- When must vehicle operators wear high visibility clothing?
- What must vehicles never drive over?
- Vehicles are considered over-height when they are over how many meters/feet?
- In what area is vehicle movement permitted without clearance from ATC?
- What does FOD stand for?
- What are the indications that an aircraft is about to push back from a gate?
- What is the minimum distance a vehicle must remain from an aircraft, unless engaged in servicing that aircraft?
- What must be turned on at all times?
- What side of the apron safety line can you safely park on?
- When must you wear a safety vest?
- When can a vehicle cross an Illuminated Runway Stop Bar?
- You can cross 7 controlled taxiways on the vehicle corridor in normal weather conditions. What are they?
- What is the Right-of-Way order of priority?
- Who are the enforcement personnel of the Airside Traffic Directives?
- What do Zipper Lines indicate?
- When driving around the Domestic Horseshoe, what side of the building do you travel on?
- What must you never do in a Bridge Return Circle?

- Can you cross the Manoeuvring Area Delimitation (MAD) line?
- Is the Manoeuvring Area Delimitation (MAD) line the separation between a controlled and uncontrolled surface?
- When you see an Emergency Response Services (ERS) vehicle approaching you with lights and/or sirens on, what must you do?
- What must you do if you are involved in a traffic accident?

---

**DO NOT FORGET:** You must learn all the locations on the D/A Training Map, on page 80 of the Airside Traffic Directives (ATDs)

---

|   |            |   |                |
|---|------------|---|----------------|
| Accidents                                   |            | Insurance, vehicle .....                      | 68             |
| Reporting .....                             | 34         | Low visibility .....                          | 59, 65, 76     |
| Witness .....                               | 34         | Maneuvering area .....                        | 57, 76         |
| Airside Vehicle Operator's Permit (AVOP)... | 9, 75      | Low visibility .....                          | 59             |
| Application .....                           | 86         | Manoeuvring area .....                        | 39             |
| Contractors .....                           | 63         | Driving on .....                              | 61             |
| Multi-employer AVOP .....                   | 10         | Low visibility .....                          | 54             |
| Rehired employees .....                     | 10         | Marking of vehicles .....                     | 61             |
| Restricted AVOP .....                       | 63         | Operating rules .....                         | 57             |
| Suspension .....                            | 19, 20     | Marshalling crews .....                       | 26             |
| Violation .....                             | 16         | Mobile phones .....                           | 25             |
| Appeal of violation .....                   | 23         | Motor Vehicle Act of BC .....                 | 6              |
| Aprons                                      |            | Movement area .....                           | 39, 76         |
| Apron I .....                               | 50         | Overheight vehicles .....                     | 68, 77         |
| Apron VI .....                              | 31         | Pallets .....                                 | 36             |
| Gate identifiers .....                      | 46         | Parking .....                                 | 31             |
| Lines .....                                 | 46         | Passing .....                                 | 26             |
| Markings .....                              | 45         | Pedestrians .....                             | 26             |
| AVOP Designation Types) .....               | 10         | Radio frequencies and phone numbers .....     | 79             |
| Baggage containers .....                    | 37         | Restricted area .....                         | 77             |
| Beaching gear .....                         | 52         | Restricted Area Identification Card (RAIC) .. | 9, 77          |
| Beacons .....                               | 67         | Suspension .....                              | 22             |
| Breakdown .....                             | 59         | Restricted AVOP .....                         | 63             |
| Call sign .....                             | 61         | Review of violation .....                     | 22             |
| Canadian Aviation Regulations .....         | 7          | Right-of-way .....                            | 18, 27, 52, 65 |
| Cargo containers .....                      | 37         | Route closed .....                            | 60             |
| Controlled area .....                       | 39, 75     | Runway  |                |
| Controlled surfaces .....                   | 39         | Frequency .....                               | 58             |
| Criminal Code of Canada .....               | 6          | Hold lines .....                              | 44             |
| Critical areas .....                        | 60, 75, 76 | Lines .....                                   | 43             |
| Crosswalks .....                            | 48         | Stop bars .....                               | 44             |
| D AVOP .....                                | 57         | Safe distances around aircraft .....          | 27             |
| De-icing bays .....                         | 33         | Smoking .....                                 | 25             |
| Emergency response .....                    | 32         | South Terminal .....                          | 50             |
| Engine run-ups .....                        | 55, 58, 59 | Apron I .....                                 | 50             |
| Escorting .....                             | 64, 75     | South Perimeter Road .....                    | 51             |
| FOD .....                                   | 35, 76     | Speed limits .....                            | 27, 49         |
| Free-range vehicles .....                   | 63, 76     | Fuel trucks .....                             | 30             |
| Low visibility .....                        | 55         | Tug tunnel .....                              | 32             |
| Gate access .....                           | 29         | Spills .....                                  | 34             |
| Gate carts .....                            | 37         | Staging .....                                 | 47             |
| Hazardous materials, transporting .....     | 37         | Stop lines .....                              | 48             |
| Head-of-stand .....                         | 30, 49, 76 | Study Guide .....                             | 88             |
| Helicopter .....                            | 52         | Suspension of AVOP .....                      | 19, 20         |
| Horseshoe .....                             | 32, 76     | Stays .....                                   | 23             |
| Hydrant fuelling pits .....                 | 29         | Suspension of RAIC .....                      | 22             |
| Idling .....                                | 30         | Tail-of-stand .....                           | 77             |



|  |        |                           |        |
|--|--------|---------------------------|--------|
| Taxiway .....                                | 77     | Vehicle beacons.....      | 67     |
| Controlled.....                              | 39, 75 | Vehicle corridor .....    | 40, 78 |
| Edge markings .....                          | 41     | Beaching gear .....       | 52     |
| Lighting .....                               | 41     | Driving in.....           | 28     |
| Lines .....                                  | 42     | Vehicle height .....      | 49     |
| Signs .....                                  | 40     | Vehicle insurance.....    | 68     |
| Uncontrolled.....                            | 40, 78 | Vehicle markings.....     | 68     |
| Towing.....                                  | 36     | Vehicle, overheight ..... | 68     |
| Training for AVOP applicants.....            | 8      | Violation                 |        |
| Training maps .....                          | 80     | Appeal .....              | 23     |
| Tug tunnel .....                             | 32     | AVOP suspension .....     | 20     |
| Uncontrolled area .....                      | 78     | Points.....               | 16, 20 |
| Uncontrolled surfaces .....                  | 39     | Review.....               | 22     |
| Vancouver Airport Authority AVOP Office..... | 9      | Types.....                | 16     |