

Vancouver International Airport AIRSIDE TRAFFIC DIRECTIVES

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Superintendent, Airside Vehicle Operations

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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.

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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
- Establish the standards applicable to vehicles and equipment operating airside at Vancouver International Airport (YVR).
- Ensure consistency 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 the ATDs and understand your responsibilities when operating a vehicle or piece of equipment on the airfield. You are expected to interpret this document reasonably and act in the best interest of aviation safety and security.

Guidelines and Regulations

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

The AVOP (Airside Vehicle Operator's Permit) 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*¹ 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 imprisonment². In addition to the potential for prosecution under the *Airport Traffic Regulations*, driving a motor vehicle airside without a valid AVOP will result in 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 suspensions³

Motor Vehicle Act and Criminal Code of Canada

To maintain a valid AVOP, all airside driving rules must be followed. As airside aprons and roadways are “private roads,” several provisions of the *Motor Vehicle Act* (BC)⁴ 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 vehicle⁵.

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

² *Airport Traffic Regulations*, Section 39

³ See Section Violations, for more information.

⁴ 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.

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



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 Authority⁶
- Smoke or display an open flame in an area where smoking or having an open flame is likely to create a fire hazard⁷

IMPORTANT: AVOP trainees may operate a vehicle when a fully licensed operator (Trainer) is present and supervising the trainee. All other rules of the ATDs apply. For enforcement, the Trainer is accountable for all the trainee’s actions and enforcement actions would be applied to the Trainer’s AVOP.

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

⁷ 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

Training

Employers are responsible to provide their employees with training, both initial and recurrent, on the Airside Traffic Directives .

At a minimum AVOP Applicants must:

- Understand all airport rules and regulations and these *Airside Traffic Directives*, including:
 - The requirement to have an AVOP, hold a driver's licence that is valid in BC* for the class of vehicle being operated airside, and be fully trained and in compliance with their company policies.

*BC Driver's License (Class 7N or Class 5 or higher) or equivalent Canadian provincial or territorial or US State driver's licenses only.
 - Safety considerations while operating equipment on the airfield.
 - The requirement to be trained and qualified by their employer: in the operation of each type of equipment they operate; and to have received practical familiarization training on the areas they will be operating airside.
 - The processes used by their employer to keep employees informed of changes in the Airside Traffic Directives and in the airside operating environment.
 - How AVOP infractions are issued and administered and the responsibility of both the AVOP Holder and employer in that process.
 - Employers have the requirement to ensure their employees have the means to access and understand YVR electronic AVOP Bulletins.

REMEMBER: All training material, including airfield maps (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)** above the waist or be accompanied by an airside escort. A RAIC gives you access to a specific restricted area during a specified period. When on the airfield, this card must be clearly visible. 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

Airside Vehicle Operator’s Permit

To operate vehicles/mobile equipment airside at YVR, the operator must hold an **Airside Vehicle Operator’s Permit (AVOP)**. To qualify for, and continue to hold an AVOP, the operator must:

- Demonstrate and maintain a business requirement to hold an AVOP.
- Be in possession of 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.
- Demonstrate they have a thorough knowledge of the ATDs relevant to the type of AVOP designation they are seeking by successfully completing a general knowledge test.
- Demonstrate their competency to drive airside by successfully completing a practical driving test airside

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 will not be issued, (applied to a RAIC) without verification of the holder’s qualifications.

REMEMBER: All driver's licence expiries, revocations, suspensions, and infractions must be immediately reported to the AVOP office. Failure to immediately report a driver's license suspension or expiry will result in the suspension of the holder's AVOP for 30 days.

AVOP Designations

There are four types of AVOP designations issued:

- 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 it limits the driver 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.
- D AVOP:** This permit is required 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.
- Free-Range Endorsement:** This limited 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.

Multi-Employer AVOP

The AVOP is issued to the holder with one company and **does not** automatically entitle the holder to drive airside with another company. Note: A D AVOP is ineligible for transfer; one must retake the practical and written exams with the Access Control Office.

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

- An application to be submitted by 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 D/A or D/A Green AVOP designation can be transferred between companies.
- For D/A to D/A and D/A Green to D/A Green transfers, in which the employee has not completed their written exam within six months, additional certification will be required.



- Companies sponsoring the AVOP transfer must have a signing authority sign the form, indicating their approval of the AVOP transfer.

AVOP Designations for Contractors – See Appendix A

AVOP for Rehired 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 a knowledge and practical test. 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 practical testing is completed by the Vancouver Airport Authority AVOP Department.

Knowledge Test

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

Practical Driving Test

- Applicants who pass the knowledge test must then undergo a practical driving test under the supervision of the YVR AVOP Examiner or an approved Examiner from their employer. All Examiners must, at a minimum, use the YVR AVOP practical exam checklist.

NOTE: If designated by the Superintendent, AVOP, testing for a D/A AVOP can be administered by your employer through a certified Examiner. If your employer does not hold this designation, then all testing must be completed through the YVR AVOP Department.

Retesting

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

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

If applicants 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 test: Applicants can cancel an appointment for a Knowledge or Practical Test up to 48-hours prior to the appointment without penalty. Applicants who cancel with less than 48-hours notice, will not be eligible to rebook a test until 7-days after the date of the cancelled appointment. Applicants who do not call to cancel an appointment and simply do not show up for an appointment will not be eligible to rebook a test until 14-days after the date of the missed appointment.

Company Trainer/Examiner Designation

Individuals wishing to apply for Trainer/Examiner certification must hold a valid D or D/A AVOP, submit an application to the AVOP Office, signed by the employer, and request authorization to act as a company representative.

To obtain certification, the applicant must provide the following to the AVOP Office:

- For knowledge training certification: A company training syllabus outlining the topics that will be covered in the training program.
- For Practical Examiner certification: a testing checklist.

A test must be performed by a member of the AVOP department:

- Before the designation of Trainer and Examiner can be bestowed on an employee.
- When a company Trainer or Examiner is undergoing recurrent testing.

Auditing company training programs may include:

- An AVOP department staff member observing a Practical Test being administered by a company Trainer/Examiner to ensure the tests are being administered to YVR standards.
- A new driver who has been trained and tested by their company, may be asked to perform an abbreviated test with a member of YVR's AVOP department to ensure they have received sufficient training.

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

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 AVOP Holder, corporate training 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 times of all AVOP Knowledge Tests administered, a copy of the test, and the results.

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

Company Trainer/Examiner Violations

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.

IMPORTANT: Trainers and Examiners who receive an AVOP violation will immediately have their Trainer /Examiner designation revoked and are subject to the appropriate penalties under the ATDs.

Trainers/Examiners can re-apply for Trainer /Examiner designation 6-months after the date of the violation and subject to successfully passing both the Knowledge and Practical test for their AVOP.

Enforcement & Violations

Enforcement Personnel

Enforcement of the ATDs is carried out with safety as the primary goal. Enforcement personnel are designated by the Director, Airside Operations and currently include:

- Airport Operations staff
- Airport Security staff
- RCMP
- Other Vancouver 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 anyone working on the airfield.
- Inspect vehicles/mobile equipment 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 if it is safe. Individuals are required to surrender their RAIC/AVOP when requested by enforcement personnel.

Violations

If enforcement personnel conclude that an operator of a motor vehicle has failed to follow the ATDs, or has committed any other ATD violation, they will issue a *Violation Notice*.

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

Violation Classes and Points

There are five classes of AVOP violations. Each class of violation results in a different number of violation points issued against an AVOP, as listed in the table below. An accumulation of AVOP violation points results in varying periods of suspension of an individual's airside 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 (Note: not knowing the requirements for a valid AVOP is not an excuse).</p> <p>Individuals caught driving without an AVOP designation will receive the following:</p> <ul style="list-style-type: none"> - 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. <p>*The first 24-hour suspension is part of the total 15-day suspension period.</p> <ul style="list-style-type: none"> - Airside driving privileges prohibited for a period of <u>12 months</u>



Gross misconduct violations: 15 points
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 (see appendix D for details on insurance requirements).
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 with any 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.
Driving with an "Escort Required" RAIC or block pass without the appropriate security escort
Disobeying the instructions of Air Traffic Control.
Disobeying and/or interfering with 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),
Threatening, assaulting, or verbally abusing enforcement personnel.
Class A violations: 9 points
Operating a motor vehicle without exercising due care and attention or reasonable consideration for other persons or property, considering all the circumstances, including, but not limited to excessive speeding; tailgating; and erratic driving.
Making an unauthorized entry on to a controlled taxiway
Performing an unauthorized engine run-up.
Operating a motor vehicle in an area not permitted under the operator's AVOP licence
Class B violations: 6 points
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
Class C violations: 3 points
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"> - Emergency vehicle with activated emergency lights - Snow removal or apron sweeping equipment - Fuel tanker - Airfield maintenance equipment i.e. Grass cutters - Passenger loading buses - Vehicles exiting controlled surfaces
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
Refuelling: <ul style="list-style-type: none"> - Within 4.5 m (15 ft) of a source of ignition - Within 7.5 m (25 ft) of an aircraft - Inside any building or enclosed structure - Outside of areas designated by the Airport Authority
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, motorized bicycle, or motorized scooter
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 YVR Fire & Rescue Controlled Access Area
Driving a motor vehicle without a seatbelt
Class D violations: 2 points
Any other failure to observe any ATD is a Class D violation, if it is not any of the following: <ul style="list-style-type: none">• Gross misconduct violation• Class A violation• Class B violation• Class C violation

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 one-year from the date the points are earned.

Prior violations may be considered 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

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
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 is 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.

A suspension of AVOP driving privileges goes into effect 30 days after a *Violation Notice* has been issued.

If a suspension review is waived, and the employee would like to serve the suspension at an earlier time, they can contact the AVOP Office to make these arrangements.

If an employee requests a review or appeal of the *Violation Notice*, then the suspension will be delayed, pending a decision from the Superintendent, AVOP. If the review or appeal is unsuccessful, the letter from the Superintendent, AVOP (or designate) will provide the dates and details of the remaining AVOP suspension.

The employee, or company supervisor or manager, must surrender the AVOP to Access Control for the duration of the suspension period.

Retraining or Retesting

In addition to any suspension assessed, retraining, or retesting before a specified date may be required, if the Superintendent, AVOP determines that this is in the interests of airside safety. AVOP privileges will remain suspended until the retraining and retesting are completed.

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.
- Operate a motor vehicle airside without a valid AVOP. Individuals caught driving without an AVOP designation will receive the following:
 - 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, AVOP 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 investigate as 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 a gross misconduct violation has occurred, the employee's AVOP will immediately be seized. This will be followed by an automatic 20-working day suspension of AVOP privileges and a requirement to retake and pass the AVOP Knowledge and Practical Tests, with a 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 more than 15 violation points are accumulated on an AVOP, the Superintendent, AVOP or designate will (along with suspending your AVOP privileges for a period of up to 20 days) may require that the employee retake and pass the AVOP Knowledge and Practical Tests, with a 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.

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](#)
- [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 motorized scooters.
- Bicycles, skateboards, inline skates, scooters, and other vehicles propelled by the operator
- Walking through security guard houses, unless authorized by Vancouver Airport Authority



Pedestrians

Pedestrians are individuals who are in the airside environment without a vehicle. Obey the following rules when on the airfield:

- 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 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, roads, and bag hall routes 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 always be obeyed.

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	Bag halls and 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
- Bag hall entrance and exit points
- 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, unless on the crossing by gates 43,44.

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 unless they are parked in a designated parking area.
- Whether on the airfield or in the bag hall, do not park vehicles where "No Parking" signs are posted.
- 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 tail/wingtip 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 unless unable to maintain 7.5 m (25 ft) from parked aircraft, in which case, you may cross the tail/wingtip clearance line to maintain minimum distance from the parked aircraft, if it is safe to do (no aircraft pushing back/taxiing into the Domestic Horseshoe).
- Consideration for taxiing aircraft must be observed when driving along the tail/wingtip 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.*

YVR Fire & Rescue Parking

Airside areas designated as **ERS ONLY** are for YVR Fire & Rescue vehicles. Parking of any vehicles and/or cargo in areas designated for YVR Fire & Rescue 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 YVR Fire & Rescue vehicles responding with lights and/or sirens. These vehicles include YVR Fire & Rescue vehicles, BC Ambulance (BCAS), Richmond Fire Rescue (RFR), RCMP and Security vehicles.

Aircraft De-icing Locations

There are several areas on the airfield that are used for de-icing aircraft: West Pad, East Pad, East Hard Stands, and Ground Run-up Enclosure (GRE). It is important not to enter an area where de-icing operations are in effect, unless given authorization by the de-icing provider. Obey all signage and restrictions during de-icing operations.

It is also important to know that the liquid used to de-ice aircraft can be very slippery, so care should be taken when exiting a vehicle or piece of equipment where de-icing has been performed.

West Pad

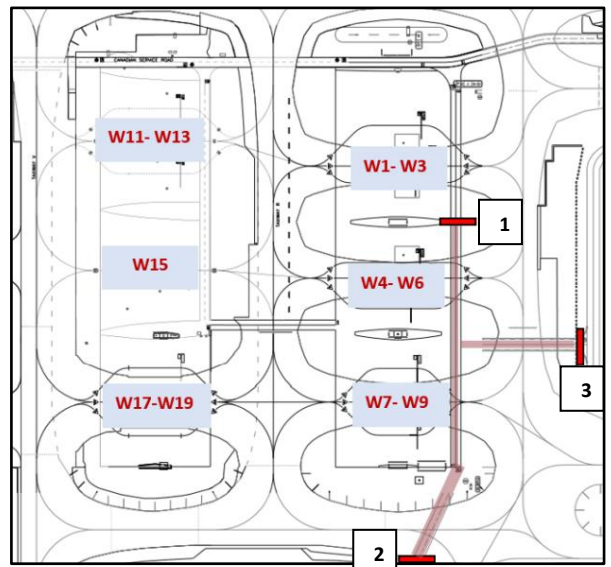
The primary location for aircraft de-icing at YVR is the West Pad. There are several parking positions where aircraft can park to get de-iced.

The parking positions on the West Pad are: W1 to W9, W11 to W13, W15, and W17 to W19. The positions are assigned based on aircraft size and pad availability.

The road that crosses Taxiway R, allows vehicle/equipment operators, who do not hold a D AVOP, to access to all the de-icing positions.

During de-icing operations, the West Pad Vehicle Corridor and West Pad Connector Road are restricted to Aero Mag vehicles only. Aero Mag deploys Vancouver Barriers at the following locations as reminders to drivers that these roads are closed:

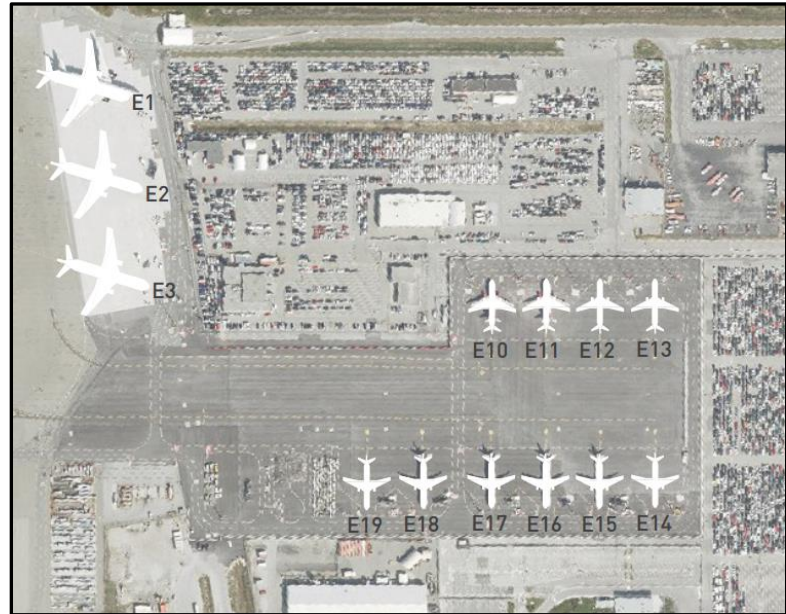
1. West Pad Vehicle Corridor (North of W4)
2. West Pad Vehicle Corridor (South of Twy K)
3. West Pad Connector Road (East side of Twy J)



Aero Mag staff will remove barriers and reopen the road after active De-icing is complete

East Pad & East Hard Stands

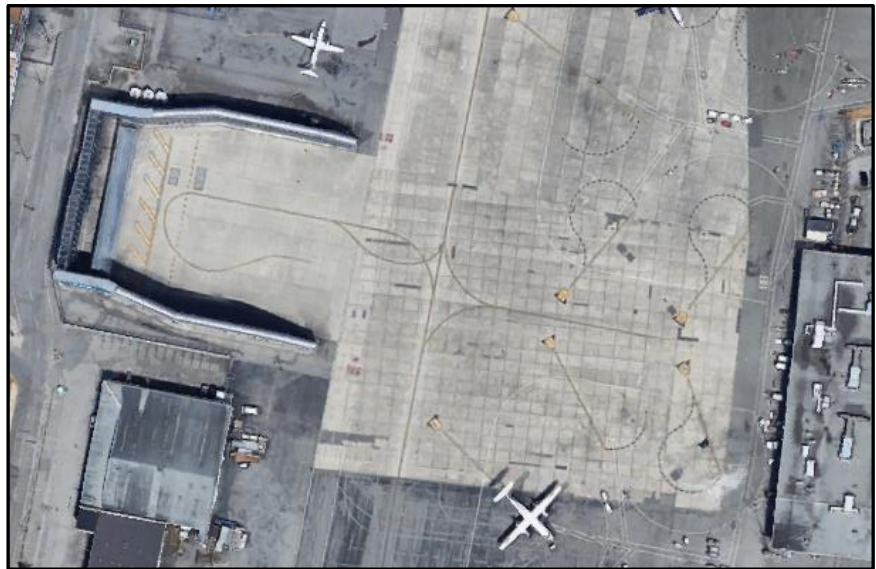
If the spray needed to de-ice an aircraft is light (ie. does not require a lot of liquid), then some de-icing operations may take place at the East Pad (E1 to E3) and East Hard Stands (E10 to E19).



Ground Run-up Enclosure (GRE)

The GRE is three-sided facility, adjacent to Apron I, and the primary de-icing location for smaller propeller and jet aircraft operating on the south side of the airport.

When driving on Apron I, it is important to check that aircraft are not entering or exiting this facility, as they have the right-of-way.



NOTE: If a small amount of ice has collected on the wings, requiring a minimal amount of de-icing fluid, these types of sprays *may* be permitted at locations other than the ones listed above. This is at the discretion of the Airside Safety Officer.

Cargo Aprons

With the increased importance of cargo operations during the global COVID-19 pandemic, the aprons dedicated to the movement of cargo can be congested. It is important to know where these aprons are so that additional care can be taken when driving near these locations.

West Pad

When not being used for aircraft de-icing operations, the West Pad (image on Page 33), is where most large cargo aircraft are parked.

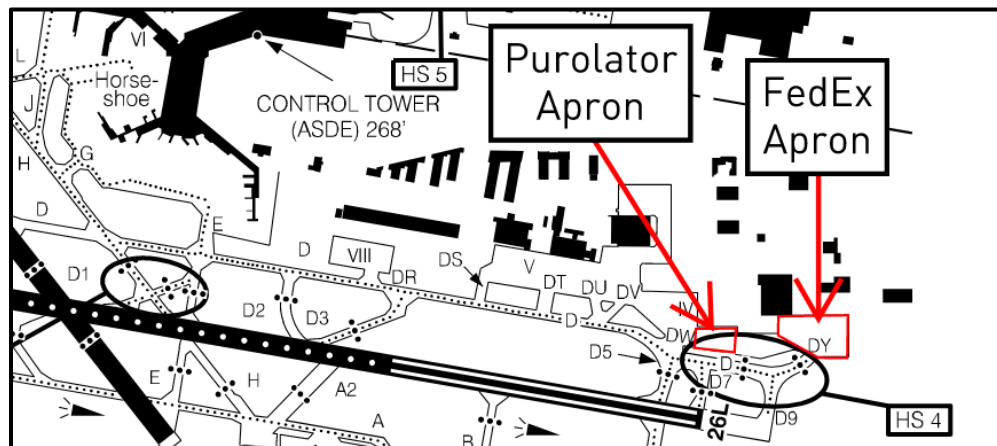
Aprons IV, V, and VIII

Aprons IV, V, and VIII are north of the South Runway (08R/26L) and can accommodate medium to large jet aircraft.



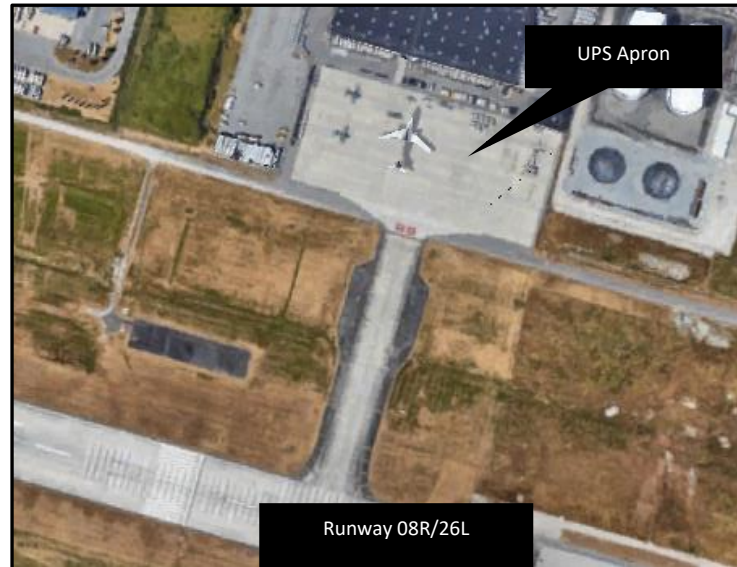
Purolator & FedEx Aprons

Purolator and FedEx Aprons both service smaller cargo aircraft, but FedEx can also accommodate larger jets. This part of the airfield has been identified as a “Hot Spot” for pilots, due to the complexity of aircraft traffic, so it is imperative that drivers stay vigilant when driving in this area.



UPS Apron

The UPS apron is a private apron and is north of the North Runway (26R/08L) and can accommodate larger jets. Care should be taken when driving cross the entrance to this apron as aircraft may be arriving or departing.



Traffic Accidents

Airside traffic accidents must be reported as described below⁸.

As required by the laws of the Province of British Columbia⁹, 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.

⁸ *Airport Traffic Regulation*, section 13(a) and (b)

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

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.

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 and remain available to provide further information.

FOD – Foreign Object Debris/Damage

Keeping the airfield free of Foreign Object Debris (FOD) is the responsibility of every person who works airside. It is critical to the success of all companies at YVR to ensure that the airfield is kept clean and safe.

Ground handlers are responsible for ensuring that baggage make-up areas and baggage input/output assets are debris free. This is especially important in areas adjacent to the apron.

Whether operating a vehicle or on foot, always remove and dispose of FOD safely. Knowingly depositing, creating, or failing to pick up FOD is a Class C AVOP violation.

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 material on airside surfaces, bag halls, and airside baggage facilities. Work areas must be kept clear of FOD.

Before driving on the airfield, check that the vehicle's wheels are clear of mud, sand, and gravel. When entering the bag halls, ensure that carts and ULDs are free of water to prevent pooling in the bag halls.

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 handrails 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.

Do not store pallets on the apron or bag halls. Pallets can only be stored in areas designated for this purpose and the associated wrappings and ties must be disposed of immediately.



Towing



On **Apron VI and inside the bag halls**, a vehicle may tow a **maximum of six (6) small carts/dollies, such LD3s, or four (4) large dollies, such as LD9 or LD7s.**

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.

Vehicle Corridor West of Pier D

The vehicle corridor outlined below in green may only be used by authorized vehicles, which have been granted such approval by the AVOP Office.



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](#)
- [Helipads](#)
- [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 on the apron 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.

TIP: *To help you remember, a Movement area is the Manoeuvring area plus the Aprons.*

Taxiways

Controlled Taxiways

Taxiways at YVR are controlled by ATC, except the taxiways listed below, they are considered 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 Holding Position Marking)

Signs, Lighting, Lines, and Markings

The following table describes and shows signs, markings and lighting that relate to the runways. 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 and uncontrolled surface. The solid line is on the uncontrolled surface and the dashed line is on the controlled surface.

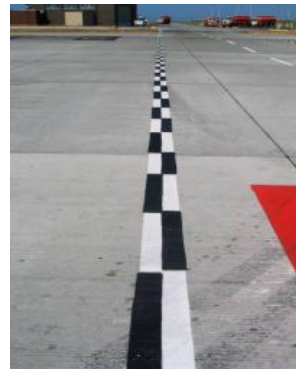
Do not cross the solid line without a D AVOP and clearance from ATC.



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

All runway markings are **white**, this includes centreline, designation markings (numbers and letters), threshold, touchdown zone, and edge markings.



Runway Holding Position Marking

A Runway Holding Position Marking, 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.

The Runway Holding Position Marking may be co-located with yellow flashing runway guard lights, also known as Wigwags, on both sides of the hold line where provided.

** Runway Holding Position Markings are also found at Helipads.*



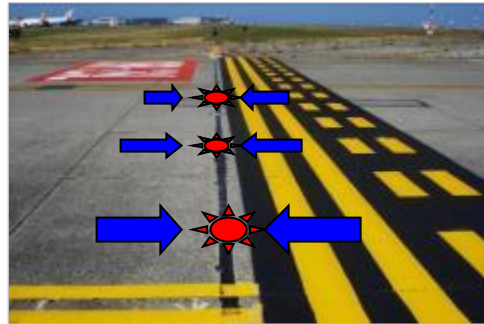
AIRSIDE SAFETY: At no time are Runway Holding Position Marking or taxi hold positions to be crossed without permission from ATC.

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.

Helipad Hold Position Markings

Hold markings Helipad C and B from incursion from vehicles, pedestrians, or aircraft. These markings are the same as those along the runways. As with all hold line markings, you must not cross them without receiving authorization from ATC.

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



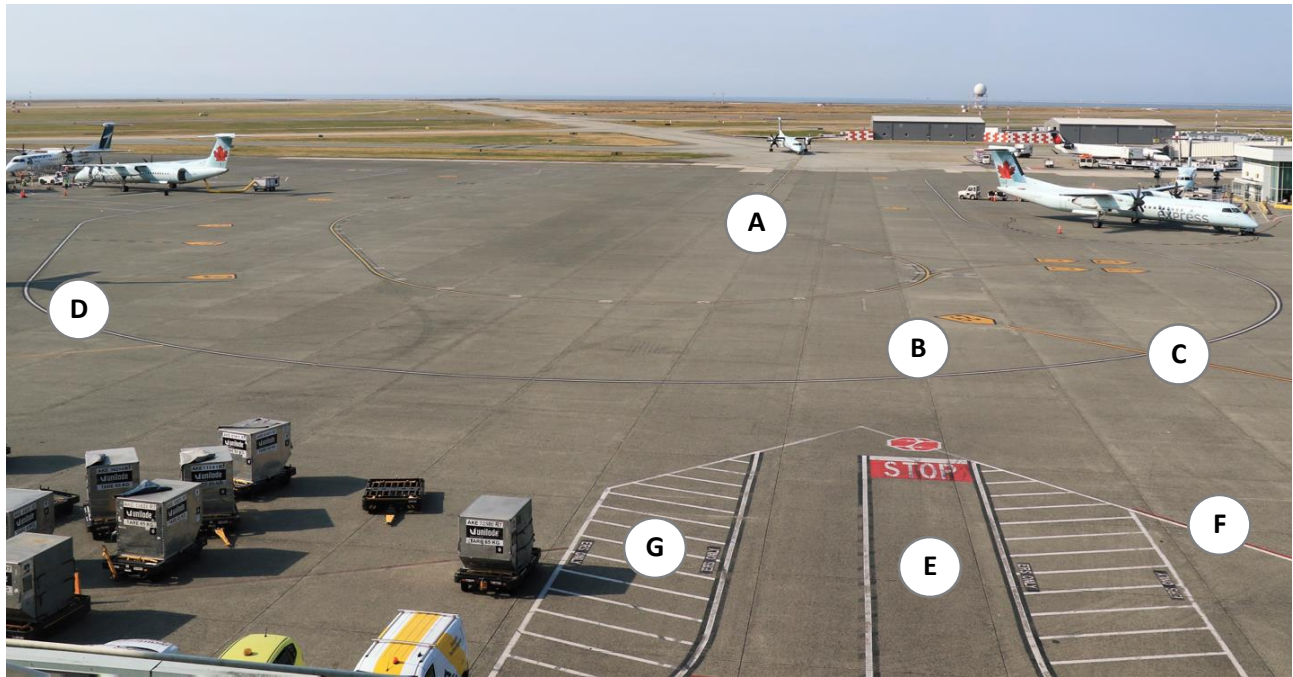
Helicopter Touchdown Points / Parking

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



Aprons

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 | Stand identifier | F | Apron safety line |
| C | Aircraft lead-in line | G | YVR Fire/Rescue 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. The stand identifier or 'price tag,' is yellow in colour, with a solid black border. The gate number is also black.



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 alphanumeric 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 for vehicles 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.

Driving across or parking between these lines when an aircraft is on the associated operational stand is prohibited.



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.

Aircraft in the red octagon indicate that drivers should look for aircraft, that could be coming from multiple directions, before crossing.



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. A Vehicle corridor is not an airside road, as described above.

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)**.

The **maximum** speed on a vehicle corridor is **25 km/h unless otherwise posted**.

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

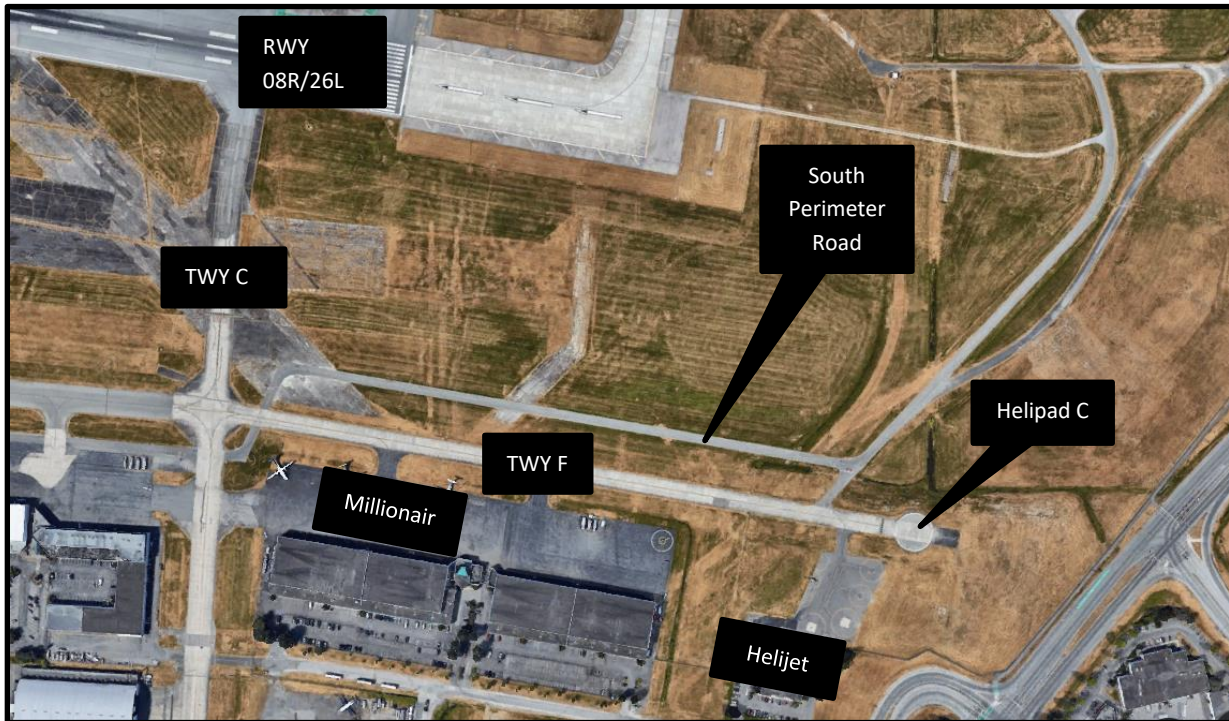
South Perimeter Road extends from Taxiway Delta Yankee (DY) south and then west adjacent Taxiway Foxtrot (F).

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

There are no exits between South Perimeter Road and the Millionair Apron. The only way to access Millionair is via TWY C, south of TWY F.



Vehicle access to the Helijet Apron is via the South Perimeter Road crossing at Taxiway Foxtrot (F), 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 and are treated like all other airside vehicles/equipment, when not towing an aircraft.

When a beaching gear vehicle is loaded with an aircraft, it has the right-of-way over other vehicles, except for emergency vehicles.

When loaded with aircraft, beaching gear vehicles are not permitted on vehicle corridors or roads, they 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.

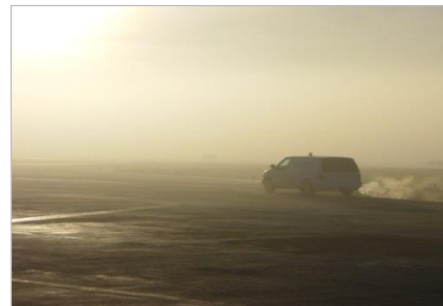
Applicable to all AVOP Designations

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

All 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* (RVO) or *low-visibility operations* (LVO).

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

RVR on Runway	Procedures / Application
---------------	--------------------------

- Engine Run-ups for maintenance purposes will not be approved



Below RVR 600 for either Runway 08L/26R or 08R/26L

- Operations on the affected runway will be suspended.
- Operations on the remaining runway may continue in accordance with operational RVR limits for arrivals and departures.
- If both runways are reporting less than RVR 600, all runway operations will cease.
- 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.

Manoeuvring Areas

Only vehicles essential to the continued operation of the airport will be authorized to operate on the Manoeuvring area during RVO and LVO. These operations include but are not limited to:

- Airfield inspections
- Emergency Response
- Snow and Ice Control
- Aircraft Tow
- Required Airfield Lighting Repairs
- Remote Stand Operations (RSO)

MLAT Vehicle Transponder – New requirement for Vehicle Locator equipment

The tracking of vehicles on the manoeuvring surface is an operational priority to enhance Air Traffic Control's (ATC) situational awareness of vehicle movements, thus reducing risks associated with vehicles operating on these surfaces.

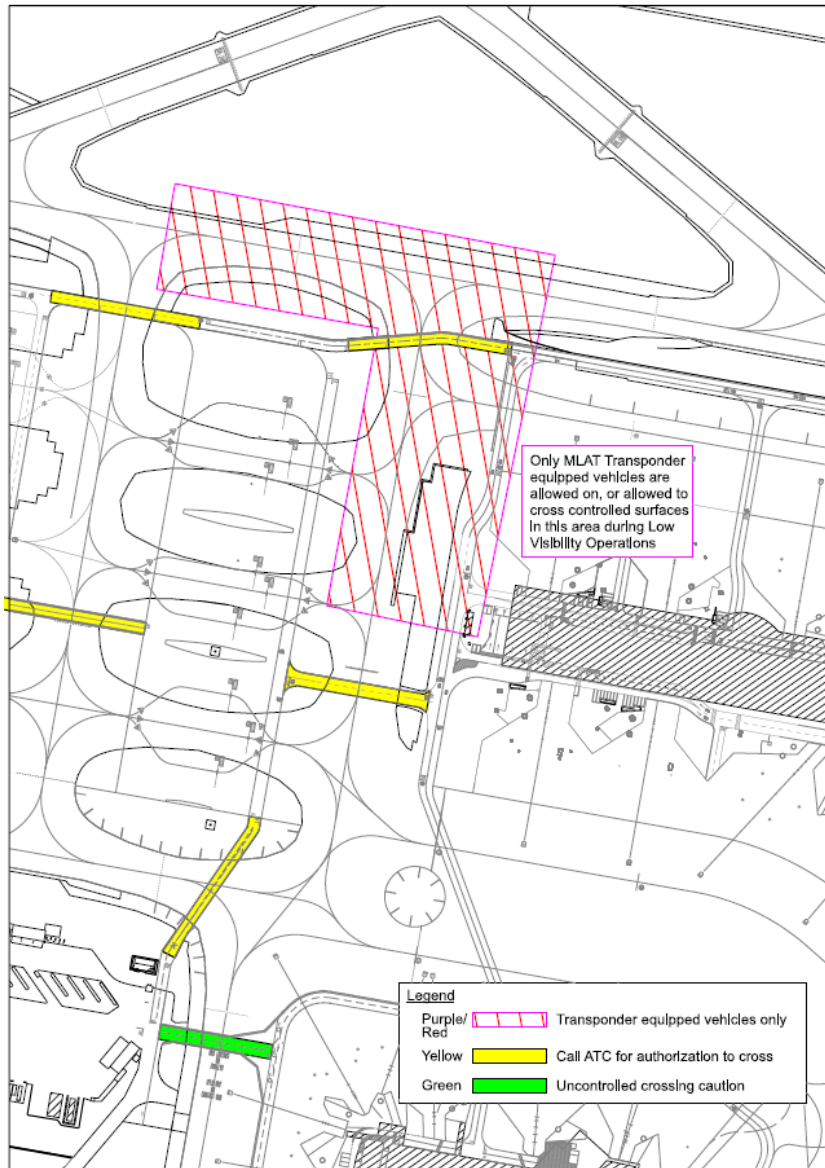


To operate a vehicle in LVO conditions, in the area highlighted by hatch marks in the map below, drivers must have a D AVOP, be in communication with the control tower (ATC) and have an operational MLAT vehicle transponder* in their vehicle.

* The only MLAT Vehicle Transponders used at YVR are branded as VeeLo

The hatched area covers the following taxiways and taxi lanes:

- Canadian Service Road, crossing Taxiway J
- Taxiway J, north of West Deicing Pad 6
- Taxiway M, between Taxiways P and R
- Taxiway JA, west of the vehicle corridor



Unless otherwise authorized by ATC, vehicles towing aircraft in this area must also comply with the requirements listed above.

The new restrictions are due to the new Pier D terminal blocking ATC’s view of this area. As a result, new technology has been obtained and deployed to assist Nav Canada Tower in tracking vehicles and aircraft on this portion of the airfield.

Aprons and Roadways

During LVO, the taxiways listed below become “controlled crossings”, which means that vehicle and equipment operators must have a D AVOP and approval from ATC to cross where the road and the taxiway intersects.

There are white signs with red flashing lights to provide drivers with a visual cue that the crossing they are approaching has become “controlled. Crossing these locations without a D AVOP and/or ATC Clearance is a Class A Violation.

- Taxiway H
- Taxiway V

- Taxiway R (two road crossings)
- Taxiway J, at the Canadian Service Road*
- Taxiway J, at the West Pad Connector Road
- Taxiway K
- Taxiway P
- Taxiway S
- Taxiway T

*Please see the diagram in the section above for more details about this crossing. The sign associated with this crossing states that having a transponder on board during LVO conditions is required. Unless specifically authorized by ATC, all requests to cross at this location without a transponder will be denied.



To access the West Pad, drivers in vehicles that do not have MLAT vehicle transponders will have to follow one of the alternate routes depicted in the image below:

- Approach from the south, crossing at Taxiway K *
- Approach from the east, crossing Taxiway J, using the West Pad Connector Road *

Although the routes above do not require an MLAT vehicle transponder, they do require the driver to have a D AVOP and approval from ATC to cross.

* De-icing Operations – During active de-icing operations Aero Mag will close two access roads to the West Pads for safety reasons to vehicles other than their deicing equipment. Access to the AOB or West Pads will be via the Canadian Service Road only and requires a working MLAT Vehicle Transponder, unless otherwise authorized by ATC.

Without a vehicle transponder, vehicle operators must contact Airport Operations and a request an escort across Taxiway J.

The following roadway/taxiway intersections are controlled by stop signs only during LVO: Taxiway N7, Q, DS, DT, DU, DV, DW, DY, and J (at the Fuel Compound).

Free Range Authority

Free Range authority is affected as follows in operations under RVO* and LVO:

Free Range and YVR Fire & Rescue Free Range Authority are suspended (see exception for the Airside Safety Officer noted below) when RVO is declared, unless otherwise determined by the Airside Safety Officer in consideration of RVR readings, ceilings, and ground-level visibility. Operators may continue to operate on the manoeuvring area calling point-to-point subject to prior approval of the ASO.

Note: Once LVO is in effect, Free Range vehicle operators are required to vacate the airfield and report off to ATC. If wildlife control or airfield electrical services are required during LVO, the ASO will contact them directly and authorize their response (calling point-to-point) as required. Emergency Services response is automatically authorized (calling point-to-point) as required.

Airside Safety Officers (ASO) – Free Range authority is suspended when visibility is RVR1200 or less. The ASO may continue operating on the area below RVR1200 by calling point-to-point.

* **Note:** Where RVO is implemented for low ceiling conditions, and visibility exceeds RVR 2600, Free Range Authority may continue.

Remote Stand Operations (RSO)

RSO operations are permitted to continue **in RVO and LVO**.

West Pad:

During LVO, RSO operations will be permitted if the RSO vehicles are driven or escorted by a D AVOP holder. They will contact Tower for permission to drive or escort vehicles across Taxiway J.

As outlined above, MLAT vehicle transponders are required when accessing the Canadian Service Rd. across Taxiway J.

East Pad:

Bus traffic will operate to/from the stand via the Head of Stand Road, or via the Canadian Service Rd (if operated by a D/AVOP holder equipped with a VHF radio).

Construction

Construction on the movement area will be suspended in RVO and LVO and crews required to vacate the field, except in areas specially designated by the Airport Authority



Specially designated areas are those which have an approved Plan of Operations specifying that proper mitigations are in place to continue working in RVO/LVO. The ASO has authority to authorize the continuance or suspension of construction operations as required.

Engine Run-ups

- **RVO** – Engine run-ups are approved in accordance with *Vancouver Airport Authority Run-up Procedures* and may continue when visibility is RVR1200 and greater.
- **LVO** – Engine run ups are prohibited on the manoeuvring area when visibility is below RVR1200. Engine run ups that do not require the aircraft to move off of the apron will be approved in accordance with *Vancouver Airport Authority Run-Up Procedures*.
- **Note:** In LVO the Ground Run-up Enclosure (GRE) will not be approved for runs, as aircraft will need to access the Manoeuvring Area to get to the GRE. Run ups will only be approved during LVO if they can be performed in situ, in accordance with Vancouver Airport Authority Run-Up Procedures.

Termination of LVO

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

Termination of RVO

RVO 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.

Driving in a Maneuvering Area and ATC Instructions

You must have authorization from ATC to operate on a controlled surface. While on a controlled surface within the manoeuvring area, monitor the appropriate ATC frequency and acknowledge and comply with all instructions given by ATC.



Driving on Taxiways

Use the taxiway centre line as a guide while driving a vehicle 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 Runway Holding Position Marking

When ATC provides "hold short" instructions, they must be read back in full.

When holding short of a runway, it is good practice to keep two (2) car lengths between the vehicle and the Runway Holding Position Marking. If working in an area where there are no Runway Holding Position Markings, such as the infield, the vehicle or piece of equipment must remain at least 60m away from the edge of the runway.

When holding short of a taxiway, stop at the Taxiway Intersection Marking, amber inset lights, Taxiway Directional, and/or Taxiway Location sign. In locations where all four of these markings are absent, remain at least 36m away from the edge of the taxiway.

Runway Access

To gain access to a runway, 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. 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. Read back all ATC instructions in full.

AIRSIDE SAFETY: Mid-field runway crossings are prohibited. Drivers must not request mid-field crossings, but there are times when ATC will give drivers approval to perform a mid-field crossing.

When ATC gives permission to access the runway:

1. Ensure that the radio is tuned to the appropriate Tower frequency.
2. Monitor the TOWER frequency when on the active runway.

3. Drive quickly and safely to minimize the time spent on the runway.
4. Drive to the right of the runway centre line markings to enhance vehicle visibility by ATC.
5. 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.
6. Notify TOWER that you are off the runway and give your exact position.
7. Switch back to GROUND.

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

Self-Reporting

Taxiway and Runway incursions can happen, and it is important that we understand and remedy how these incidents occur. If a Taxiway or Runway incursion happens, which means a vehicle has been driven onto one of these surfaces without ATC permission, notify the ASO and ATC immediately.

For example, a vehicle operator is on the manoeuvring area and is instructed by ATC to hold short of a taxiway. The operator inadvertently drives past the hold short markings by 10 feet and stops. ATC does not notice that the vehicle operator has incurred but the operator is aware. In this instance, the vehicle operator would self-report to the Airside Safety Officer (contact can be made to the Airside Safety Officer by calling (604 207 7022) and inform them of the taxiway incursion.

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.

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.



Green Islands

Green Islands are areas of airfield pavement that are not load bearing. They are painted green with yellow lines around their outside. D AVOP operators are prohibited from driving in or across a green island unless explicitly authorized by ATC, and they have specific duties to perform in these areas (e.g., airfield lighting maintenance; snow clearing). You are prohibited from cutting across a green island to vacate a controlled surface. For example, the largest green island at YVR is located between Taxiways Delta Whiskey (DW) and Delta Yankee (DY) and bordered by Taxiway Delta (D). Operators are prohibited from crossing the green island to vacate Taxiway Delta (D); operators must follow ATC instructions and vacate via an approved taxiway.



Grass Infields

The taxiways and runways bisect over 40 grass infields across the airfield. As with green islands, D AVOP operators are prohibited from exiting a runway or taxiway onto a grass infield unless authorized by ATC AND performing specific duties (e.g., grass mowing).

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.

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.



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, contact Airport Operations using a cellular phone (604-207-7022) and request immediate assistance from the Airside Safety Officer.

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.

Temporary Barriers

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



When it is necessary to close a taxiway, apron, or other access route, lit, red and white barriers are used to provide a visual indication to drivers and pilots that a surface is closed.



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

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 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 / Aero Mag / 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
- Skid steer 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
- MLAT Vehicle Transponder

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.

MLAT Vehicle Transponder

A MLAT vehicle transponder is required for vehicles operating on the manoeuvring area shown below. The only MLAT Vehicle Transponders used at YVR are branded as VeeLo.

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 Over height 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.

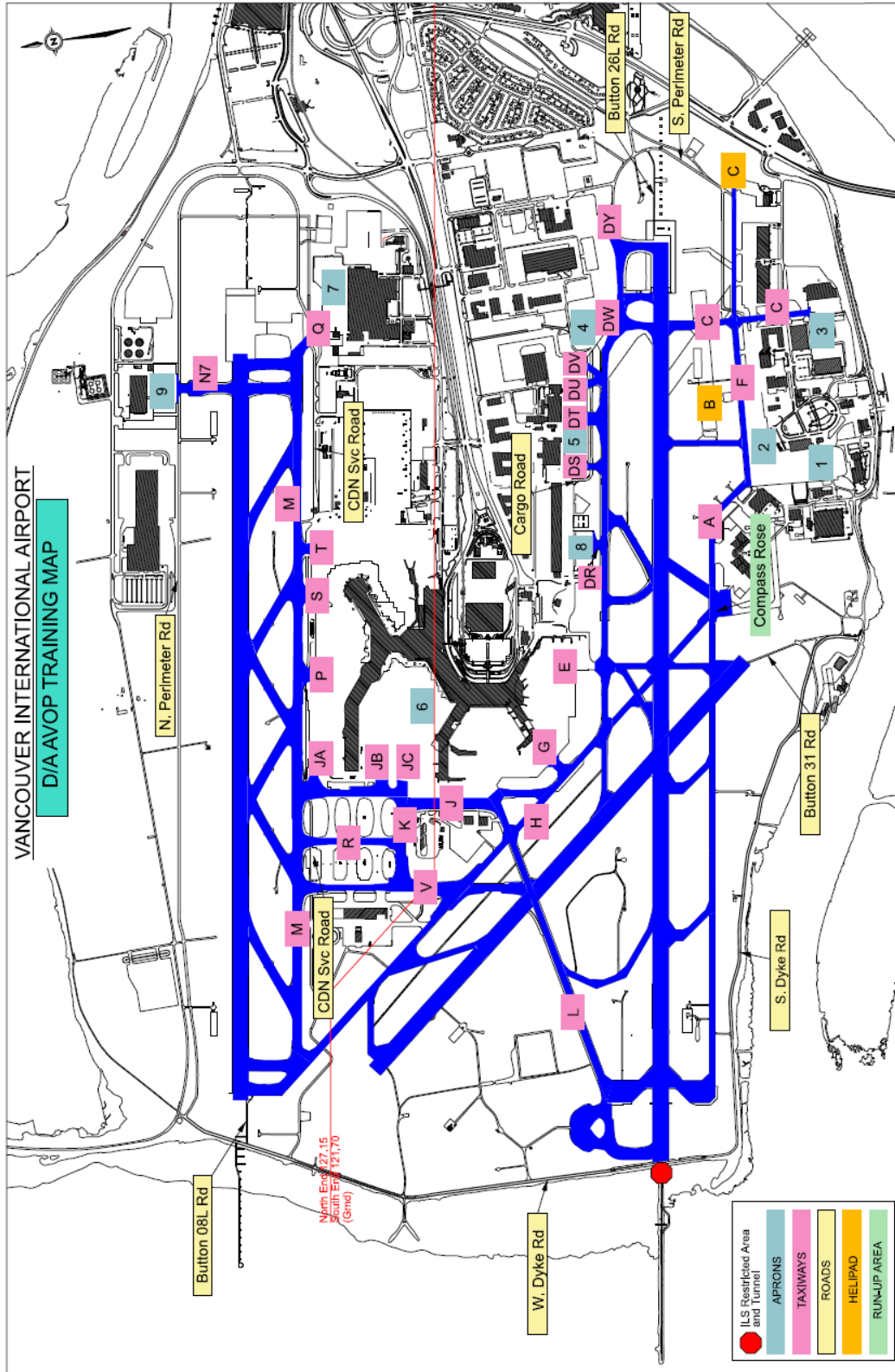
Vehicle Corridor – part of the apron identified with painted lines in which vehicles are authorized to travel.

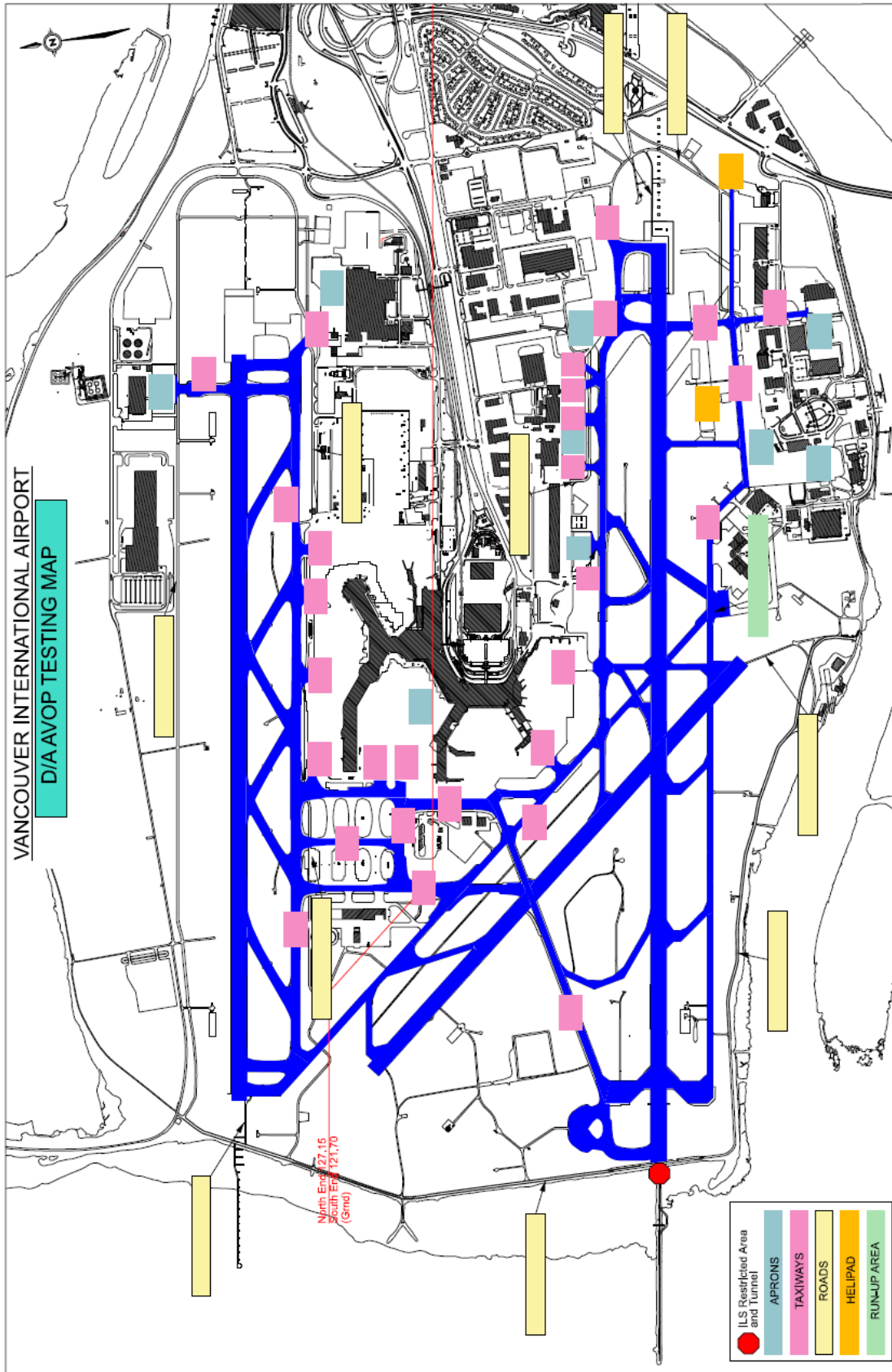


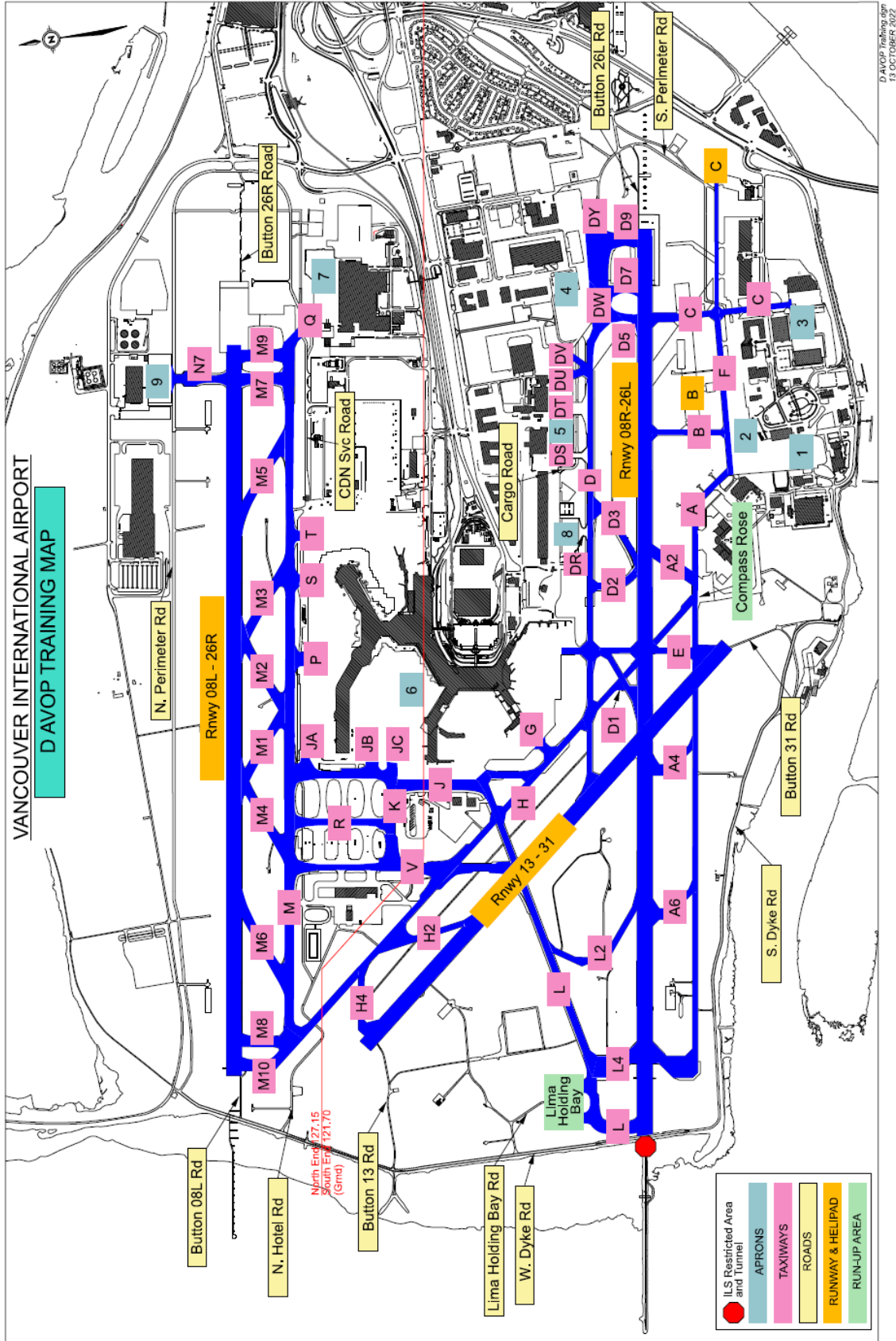
Appendix G: Radio Frequencies and Phone Numbers

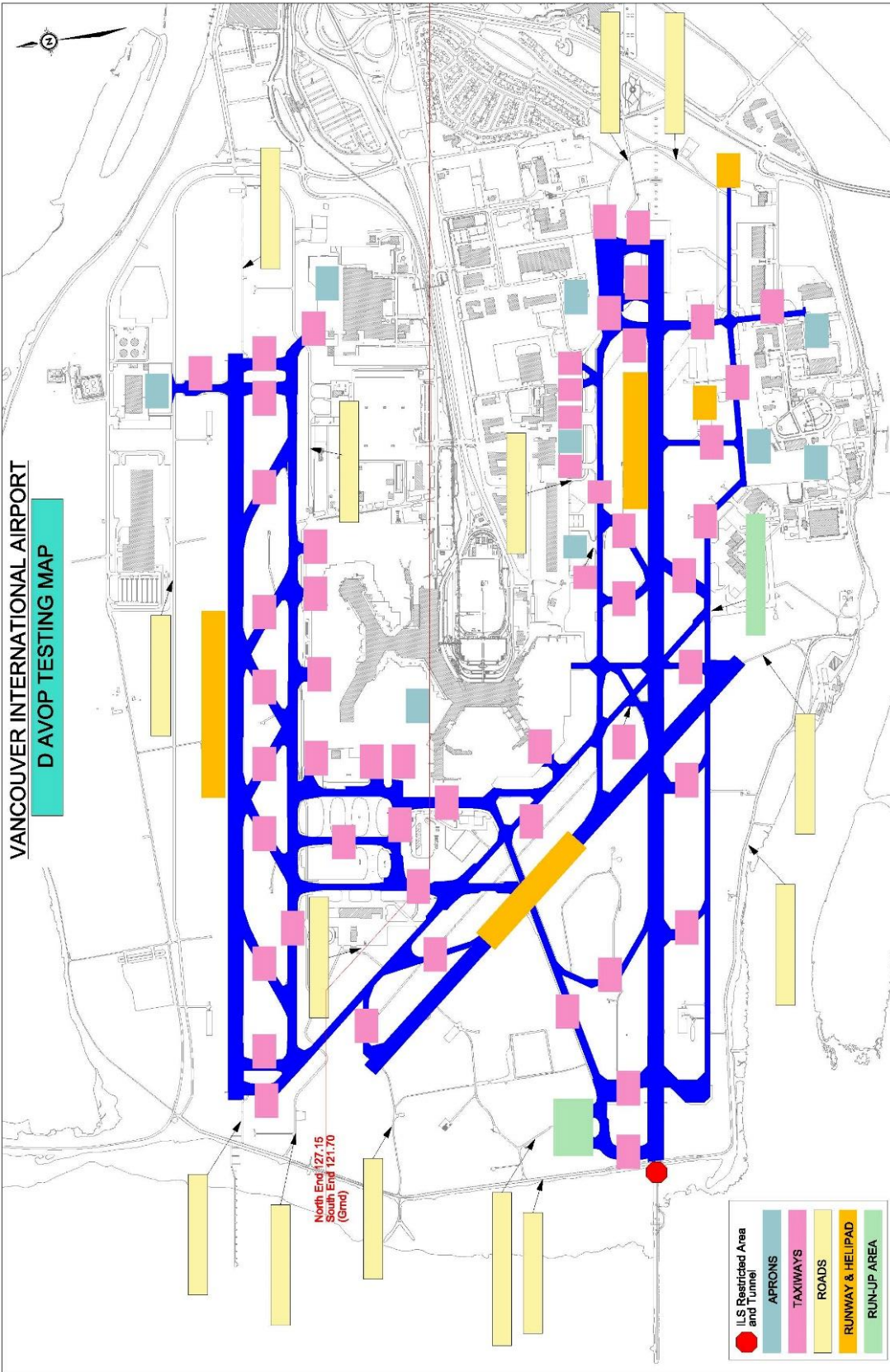
NAV CANADA Radio Frequencies	
North Ground	127.15 MHz
South Ground	121.70 MHz
North Tower	119.55 MHz
South Tower	118.7 MHz
ATIS	124.60MHz
Phone Numbers	
Airport Operations	604.207.7022
Airside Vehicle Operations	604.276.6774
Access Control	604.276.6177
All emergencies	911, then 604.207.7022

Appendix H: Training Maps

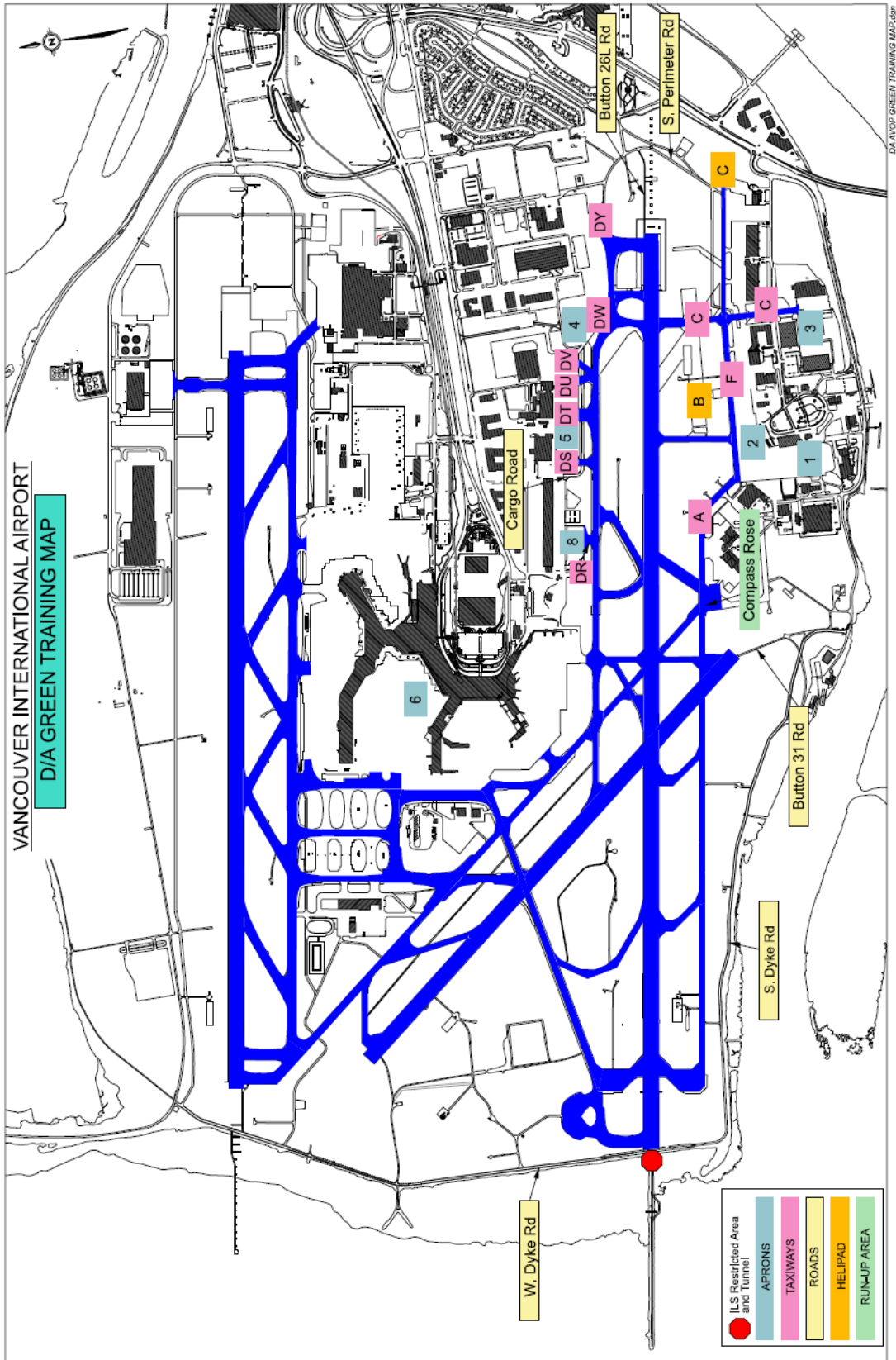


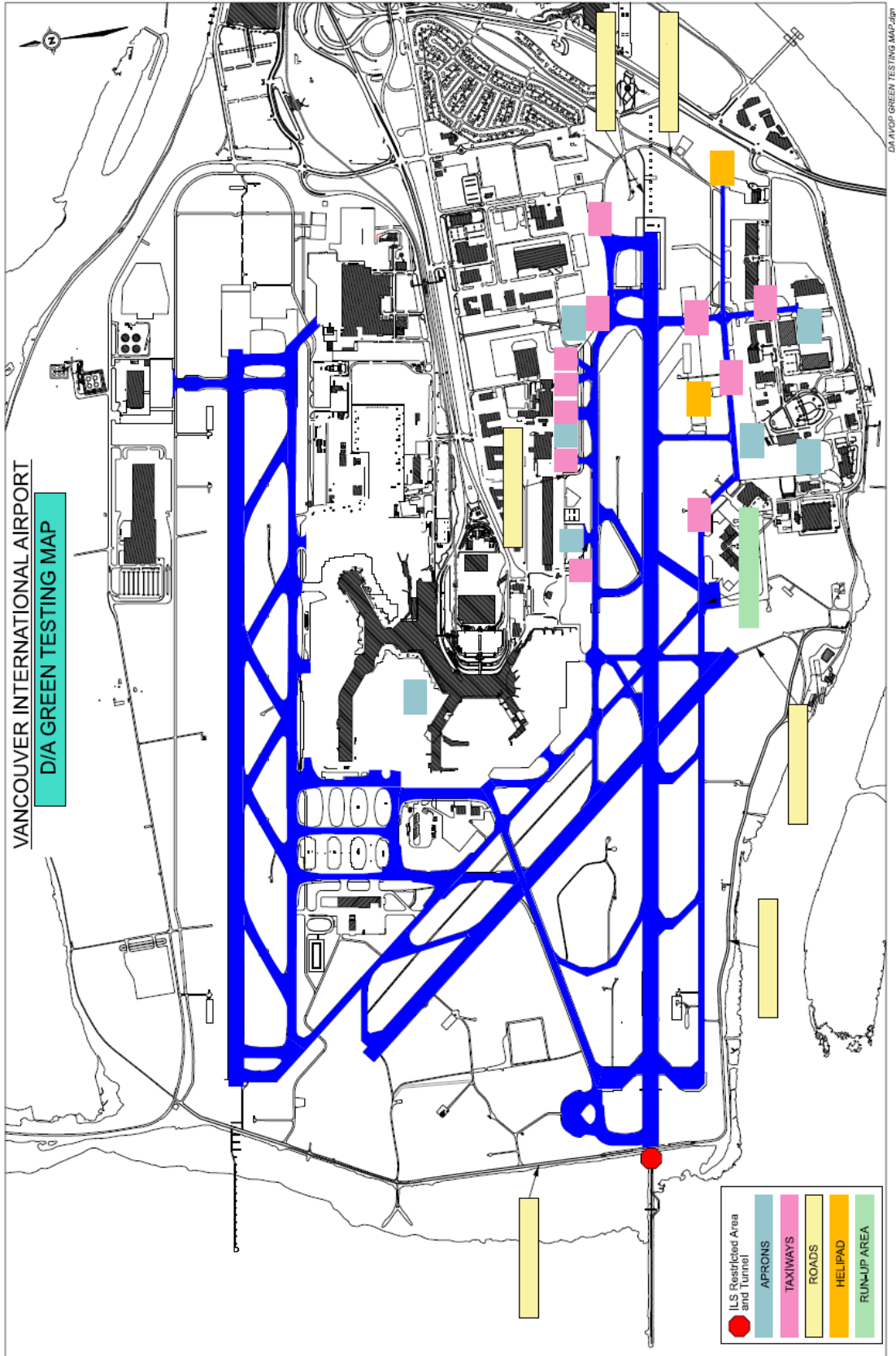






D AVOP Testing Map
18 SEPTEMBER 2016





Appendix I: AVOP Application

Available to download from www.yvr.ca



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

APPLICANT (Allow 3 working days for processing)			
Surname		First Name	Middle Name(s)
Address			
City/Province/Postal Code		Phone Number	Email
TESTING (choose one) 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: <input type="checkbox"/> YVR AVOP Office <input type="checkbox"/> Company Examiner		* Note D testing requires a copy of VHF Aeronautical Radio Operators Certificate	
PROVINCIAL / TERRITORIAL / STATE DRIVER'S LICENSE			
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"/>			
AIRPORT RESTRICTED AREA IDENTIFICATION CARD (RAIC)			
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	
EMPLOYER STATEMENT			
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) _____	
FOR YVR & Company Examiners USE ONLY			
Knowledge Test	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail YYYY / MM / DD	<input type="checkbox"/> X2 YYYY / MM / DD
YVR Representative _____			Date _____
Practical Test	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail YYYY / MM / DD	<input type="checkbox"/> X2 YYYY / MM / DD
Examiner Name (please print) _____	Signature _____		Date _____
1st Exam Date: YYYY / MM / DD	2nd Exam Date: YYYY / MM / DD	3rd 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:		
<u>Vehicle Information</u>		
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"/>		
<u>Assigned Vehicle Identification</u>		
Generic Identifier and Number: Identifier 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"/>		
<u>AVOP Office Information</u>		
Issuing Officer: Name: Signature		
Position: Date of issue: Year / Month / Day		
<u>Cancellation of Identifier</u>		
Date of Cancellation: Year / Month / Day		
Reason:		
<u>Additional Comments:</u>		
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

December 2022

D/A AVOP
STUDY
GUIDE

Superintendent, Airside Vehicle Operations

VANCOUVER AIRPORT AUTHORITY, RICHMOND, BC
AVOP TELEPHONE 604.276.6774 EMAIL 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.

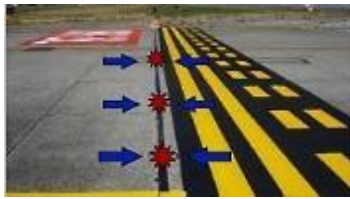
Signs & Markings

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 Holding Position Marking
- 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 does a Runway Holding Position Marking look like?
- What do Taxiway Centre Lines look like?
- In what situations should drivers reduce their speed?
- What colour are Runway Edge Lights?
- What colour are Taxiway Edge Lights?
- Vehicle corridors are marked on the apron surface by?
- What colour 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 escorts 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 manoeuvring 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 a YVR Fire & Rescue 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)

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