Vancouver International Airport
AIRSIDE TRAFFIC DIRECTIVES

January 2025

Copyright Notice

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

Superintendent, Airside Vehicle Operations
PO Box 44638
YVR Domestic Terminal RPO
Richmond, BC
V7B 1W2
Canada
Phone: 604.276.6774
Email: avop@yvr.ca

Directives Revision

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

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

Table of Revisions

Revision Status			**Approval**	
Rev	Date	Description	Prepared By	Approved By
1.0	September 2021	Updated ATDs	Nicholas Anderson	Jason McArthur
2.0	December 2023	Updated ATDs	Donald Leung	Jason McArthur
3.0	January 2025	Updated ATDs	Sean O'Neil	Jason McArthur

Table of Contents

1 Introduction

Welcome to the YVR *Airside Traffic Directives* (ATDs). Drivers operating on the airfield contend with conditions that are not normally encountered on public streets and highways. This document provides employees with the knowledge needed to obtain the license required to operate a motor vehicle on the airfield at Vancouver International Airport.

1.1 Airside Traffic Directive Objectives

The primary 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 (Airport Authority) and other agencies, organizations, or companies.
- Serve as a reference and training tool for airside vehicle operators.

Employees wishing to obtain an AVOP (Airside Vehicle Operator's Permit) license must know the information contained within the most current version of the ATDs and understand their responsibilities when driving on the airfield.

It is expected that this document be interpreted reasonably and that vehicle operators act in a safe and secure manner.

1.2 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*

2 Provincial & Federal Statutes

Vehicle operations on the airfield are regulated both by provincial and federal statutes.

2.1 Airport Traffic Regulations

Section 14(b) of the *Airport Traffic Regulations*[1] provides that no person may operate a vehicle in a restricted area, which encompasses the entire airfield, without valid AVOP and driver's license.

The maximum penalty for operating a vehicle airside without the proper licenses is $500 and 6-months imprisonment[2]. In addition to the potential for prosecution under the *Airport Traffic Regulations*, driving a vehicle airside without a valid AVOP could result in the following:

- Immediate temporary suspension of security clearance, including confiscation of Restricted Area Identification Card (RAIC).
- Render the driver ineligible to apply for an AVOP license for a period of 365 days.
- The issuance of an AVOP violation with corresponding AVOP and RAIC suspensions[3]

2.2 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 vehicles in the *Criminal Code of Canada* apply to the airside operation of vehicles.

Traffic accidents will be investigated by the Airport Authority. All airside drivers involved in a traffic accident shall:

- "Freeze the Scene", which means preserving the scene as it was at the time of the accident.
- Provide a preliminary statement to the Airside Safety Officer (ASO) or investigating body.

Cases involving injury(ies) and/ or death will be investigated by the RCMP.

To operate a vehicle on the airfield the driver must:

1. Hold the correct class of AVOP for the area in which they are working.
2. Be in possession of an AVOP Card, Interim AVOP, or AVOP being printed on the RAIC for the company they are certified for.
3. Abide by the restrictions and regulations relevant to both their RAIC and AVOP designation held.
4. Ensure that they are aware of updates to the ATDs.
5. Hold a valid driver's license for the type and class of vehicle[5].
6. Refrain from driving when their AVOP is suspended, or their license is prohibited from being used under the *Motor Vehicle Act* (BC) or *Criminal Code of Canada*.
7. Meet the minimum standards of driver care set out in Section 144 of the *Motor Vehicle Act* (BC).
8. Not commit any criminal act of driving contrary to the Criminal Code of Canada.

2.3 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 manuals, and/or any other applicable legislation and workplace safety guidelines.

2.4 Canadian Aviation Regulations

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

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

Employees learning how drive on the airfield must be accompanied by a licensed vehicle operator (Trainer).

During training, all rules within the ATDs apply, and the Trainer is accountable for the trainee's actions. Violations incurred are applied to the Trainer's AVOP record.

[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.
[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

3 Employer & Employee Commitments

3.1 Training

To participate in the AVOP program there are several commitments that are needed from both the employer and the employees involved.

Employers are responsible for providing their employees with training, both initial and recurrent, on the following:

- The *Airside Traffic Directives*.
- How to operate the equipment needed to perform their jobs.
- Information about the areas in which they will be operating.

Employers must also ensure that they have a process in place to keep employees informed about:

- Updates to the *Airside Traffic Directives*.
- Changes on the airfield.
- Timely access to AVOP Bulletins disseminated by YVR.

Employees who will be driving on the airfield are expected to do the following:

- Know the rules, regulations, and safety considerations applicable to the areas in which they work.
- Understand the information contained in the *Airside Traffic Directives*.
- Obtain an AVOP designation.
- Hold a valid driver's license* for the class of vehicle that they will be operating.
- Complete their company policy training program.

*BC driver's license (Class 7N or Class 5 or higher) or equivalent Canadian provincial or territorial or US State driver's licenses only.

Both the employee and employers are responsible for knowing the process with which AVOP infractions are issued and administered.

All training material, including the airfield maps in *Appendix H: Training Maps*, are to be supplied by the applicant's employer.

4 AVOP Application Process

4.1 Restricted Area Identification Card

The entire airfield is considered a *restricted area,* and entry is controlled by security access points. There is clear signage indicating that airside access will only be granted to those with authorization from the Airport Authority.

To enter a restricted area, an employee's *Restricted Area Identification Card (RAIC)* must be:

- Clearly visible
- Above the waist

If they do not have a RAIC, they must be accompanied by an authorized escort.

After successfully completing an AVOP exam, the designation is NOT VALID until it is printed on the driver's RAIC.

Employees with AVOP designations may have the letters "D/A" or "D" printed on the RAIC or a face card.

4.2 Vancouver Airport Authority AVOP Office

Below is the location and contact details for the Vancouver Airport Authority AVOP Office:

- Location: Access Control Office, DTB, Level 1
- Phone: 604.276.6774.
- Email: avop@yvr.ca

4.3 Airside Vehicle Operator's Permit (AVOP)

To operate vehicles/mobile equipment on the airfield at YVR, the operator must hold an 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.
- Know the rules and regulations relevant to the type of AVOP designation they are seeking by passing the Knowledge Test.
- Demonstrate their ability to operate safely on the airfield by passing the Practical Test.

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

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

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

The AVOP Office must informed immediately when a license has expired, been revoked, suspended, and/or a driver has been issued a violation.

Failure to submit a report will result in the loss of airside driving privileges for **thirty (30) days.**

4.4 AVOP Designations

There are four types of AVOP licenses issued:

D/A AVOP: This license allows the driver to operate equipment on uncontrolled surfaces, such as Aprons. The D/A AVOP designation expires at the same time as the RAIC, unless the driver has been tested within the previous **twelve (12) months**.

D/A Green AVOP: This license is similar to the D/A AVOP, but the driver is limited to the areas covered by the South Airport RAIC. The D/A Green AVOP designation expires at the same time as the RAIC, unless the driver has been tested within the previous **twelve (12) months**.

D AVOP: This permit is required to enter the manoeuvring areas of the airport. The driver must also have a valid Aeronautical Radio Operator's Certificate issued through Innovation, Science and Economic development Canada. The D AVOP expires **three (3) years** from the date of issuance.

Free-Range Endorsement: This endorsement is provided to very few employees driving on the airfield. The Airside Safety Officers, Wildlife Management Technicians, and a limited number of the Fire Rescue team are eligible for this designation.

To operate Free-Range, drivers must obtain their Free-Range and D AVOP licenses. The Free-Range designation expires **one (1) year** from the date of issuance and must be renewed annually along with the D AVOP.

The Airport Authority does not inform drivers about their AVOP license expiry dates. The company/driver is responsible for ensuring retesting is complete before that date.

4.5 Multi-Employer AVOP, D/A and D/A Green

Obtaining an AVOP designation with one company **does not** automatically entitle the driver to use the license with another company.

To request the transfer of this type of license to another company, the following steps must be taken:

1. The new employer must have signing authority and submit a transfer application indicating their support for the transfer.

2. If the driver has had a clean driving record for the past **six (6) months** and their last Knowledge Test was administered by the YVR AVOP Department, the D/A or D/A Green AVOP designation can be transferred between companies.

3. If the employee has not completed their written exam in the past six (6) months additional training/testing may be required.

4. If it has been over **three (3) years** since their last test, the applicant will be required to undergo the full testing process.

4.6 D AVOP Transfer Procedure

Historically, if a person held a D AVOP designation, they could use this license at more than one company without triggering the need for additional training. The challenge is that companies often operate in different parts of the airfield, sometimes resulting in drivers performing unsafe maneuvers, due to their lack of knowledge and experience in the new work area.

The purpose of the D AVOP Transfer Procedure is to establish a process by which the risk associated with transferring the license from one company to another can be assessed and accomplished without the employee having to go through the process of re-taking the D AVOP test.

The following describes the process that must be followed to propose the transfer of a D AVOP designation from one company to another:

1. The proponent will submit an AVOP Transfer form.

2. Upon receiving an AVOP Transfer Form, AVOP office staff will investigate the proponent's driving record:
   - How long they have been driving airside.
   - How long have they been D AVOP certified.
   - History of violations.
   - The comments that were recorded during their previous driving tests.

3. Based on the above assessment, the proponent will be required to meet with an AVOP office designate.
   - If the transfer is deemed low risk, they will be scheduled for a **thirty (30) minute** interview.
   - If the transfer is considered higher risk, a **ninety (90) minute** interview and a short driving test will be required.

4. Superintendent or designate may deny the request for transfer based on the complexity of the task to be performed while using a D AVOP.

4.7 AVOP Designations for Contractors

An employee who leaves a company but is rehired **within three (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. **See Appendix A for AVOP for Rehired Employees.**

5 Training & Testing

To obtain a D/A or D license, applicants must pass both a Knowledge and Practical Test.

- Vancouver Airport Authority AVOP Department will manage and oversee all Knowledge Tests and D Practical driving exams.
- If the company **does not** have an internal Examiner, the AVOP Department will also perform the Practical driving tests.
- If the company **has** an AVOP Office certified internal Examiner, they may perform their company's D/A or D/A Green Practical driving exams.

Three training modules are available online: www.yvrtraining.ca

5.1 D AVOP Preparation Sessions

D AVOP Preparation Sessions are not in place of formal training and can be scheduled upon request. **Three (3)** persons may join at a time.

These sessions are conducted by AVOP Office staff and are designed for anyone who is preparing to take their D AVOP Test. This is an invaluable tool for new staff, but also a great refresher for seasoned staff who want to sharpen their skills.

The training sessions include:

- An in-class presentation, reviewing various locations, strategies, and practices that will assist D drivers when on the airfield.
- Emphasis will be given to "hot spots" and the areas in which the applicants will be working.
- Each trainee will practice making radio calls.
- They will be taught how to safely operate on controlled surfaces.

5.2 Knowledge Test

The Knowledge Test taken in the YVR AVOP Office consists of:

- Twenty-five (25) true/false and multiple-choice questions. To pass, the applicant must achieve a mark of 88% or greater.
- A map labelling test, on which the applicant must achieve one hundred percent (100%).

Study aids and notes are not permitted during the test.

5.3 Practical Driving Test

Applicants who pass the Knowledge Test must then undergo a driving test, known as the Practical Test, under the supervision of their company's approved Examiner or one of the Examiners from YVR's AVOP Office.

The Practical Test must be taken **within sixty (60) days** of passing the Knowledge Test. Otherwise, the applicant will have to retake, and pass, the Knowledge Test.

5.4 Retesting

For both Knowledge and Practical tests, applicants who do not pass must wait the following time periods before retesting:

- Failed first attempt: wait **seven (7) calendar days**.
- Failed second attempt: wait **thirty (30) calendar days**.
- Failed third attempt: wait **one (1) year.**

If applicants with an AVOP designation fails a retest:

- They must book another retest after the appropriate amount of time.
- Their AVOP designation will be removed from their RAIC until they pass the tests.
- If they "no show" a testing appointment the following week, their RAIC will be deactivated until they pass the YVR AVOP **Knowledge** and **Practical** tests or have the AVOP designation removed from their RAIC.
- If they fail a second time, the AVOP designation for all applicable companies will be removed.

5.5 Test Cancellation/Not Showing Up for a Test

Applicants can cancel Knowledge or Practical Test appointments **up to forty-eight (48) hours** prior, without penalty. Applicants who cancel with **less than forty-eight (48) hours'** notice will need to wait **seven (7) days** after the date of the cancelled appointment to reschedule.

Applicants who do not show up for an appointment ("no show") will need to wait **fourteen (14) days** after the date of the missed appointment to reschedule.

5.6 Company Trainer/Examiner Designation

Individuals wishing to become a company Trainer/Examiner must submit a written application to the AVOP Office, signed by their employer, and hold a valid D or D/A AVOP. They must also provide the following to the AVOP Office:

- For Knowledge Training certification: The company's syllabus, outlining the topics that will be covered.
- For Practical Examiner certification: The Testing Checklist, which must include the information contained in YVR's AVOP Practical Exam Checklist.

A member of the AVOP department will perform the test to certify the employee as a company Trainer and/or Examiner.

The Trainer/Examiner certification be in effect if the trainer's RAIC and AVOP are valid.

Applicants who are issued a violation during a Practical Exam will automatically fail. In this situation, the violation points are not assigned to the Examiner's AVOP.

5.7 Training Records

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 Trainers and Examiners are responsible maintaining and updating the company's AVOP-related records.

5.8 Audit Program

It is important that the Airport Authority periodically audits the training and testing program of companies to ensure that they meet YVR standards. There are a several opportunities and methods to perform these audits:

1. When a company's Trainer/Examiner is undergoing recurrent testing.

2. By observing a Practical Test being administered by a company's Trainer/Examiner.

3. Asking a driver, recently trained and tested by the company's Trainer/Examiner, to perform an abbreviated test with a member of YVR's AVOP department.

5.9 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.

Trainers and Examiners who receive an AVOP violation will immediately have their Trainer/Examiner designation revoked and are subject to the relevant penalties (see Section 16).

To get their Trainer/Examiner status reinstated, they must:
- Wait six (6) months after the date of the violation.
- Pass both the Knowledge and Practical Tests.

6 Airfield Surfaces

Applicable to all AVOP Designations

The following are important terms used to describe the different surfaces on the airfield:

- ***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 controlled taxiways and helipads.

- ***Controlled surfaces*** are clearly marked with signs and other markings; controlled surfaces include runways, helipads, and controlled taxiways. They cannot be accessed unless the driver has:
    - A D AVOP designation
    - Received clearance from ATC.
    - An appropriately equipped vehicle.

- ***Uncontrolled surfaces*** are the roadways, Aprons, and aircraft stand used for the loading and unloading of aircraft. These surfaces are not under the control of NAV Canada and a radio license is not required.

Memory Tip: A movement area is the manoeuvring area plus the Aprons.

7 Airside Roads & Vehicle Corridors

7.1 Airside Roads

The are many roads to allow vehicle operators to access the various buildings and aprons, that exist throughout the airfield.

7.2 Vehicle Corridors

Vehicle corridors are a subsection of airside roads, but they are on aprons and are unnamed.

When on the apron, it is important to follow vehicle corridors, when possible. Keeping to these routes results in predictable traffic patterns, which is a safer environment in which to operate.

The following are important considerations when operating on vehicle corridors:

- Approach other corridors/airside roads at a right angle (90 degrees) to ensure maximum visibility.
- Yield to other traffic already travelling in the corridor.
- Use the vehicle's turn signal lights to indicate direction of travel. If the vehicle is not equipped with turn signal lights, use the appropriate hand signals.
- Passing is permitted, provided that the speed limit is not exceeded and there is no oncoming traffic.
- Passing in tunnels or breezeways is strictly prohibited.

Drivers may travel between two adjacent gates, without using a vehicle corridor, if they have work at the adjacent aircraft stand. If travelling between gates that are not adjacent (one or more gates are in between), the vehicle corridor must be used.

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

7.3 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.

Area	Limit
Bag halls and baggage make-up areas	10 km/hr
• Tunnel ramps • Head of Stand (HOS) road, Around D Pier and between B and C Piers • Sections of HOS road, adjacent to Remote Stand Operations (RSO), near Gates 62, 64, 66, and 67.	15 km/hr
Vehicle corridors, aprons, and movement areas	25 km/hr
Airside roads, unless otherwise posted	40 km/hr

Take note of the speed limit change when approaching an apron from an airside road. Never exceed the speed limit, unless specifically instructed by Airport Operations or Security personnel.

Regardless of the speed limit for an area, the following lists instances when driving speeds should be further reduced:

- During poor weather conditions.
- When visibility conditions on the field are reduced.
- When approaching tunnels, blind corners, bag hall entrances and exits.
- Near operating aircraft.
- When approaching a pedestrian walkway.
- In construction zones.
- Authorized Airport Operations Personnel may exceed speed limits when responding to emergencies. (Emergency vehicles will display red and/or blue flashing lights when responding to an emergency.

Speeding is one of the most ticketed violations. Speeding reduces driver's situational awareness and reaction time.

Operational pressures are not an accepted excuse to speed.

For drivers with a D AVOP or Free Range designation, the following are the speed limits on controlled surfaces:

- Taxiway: Maximum is 60 km/hour.
- Runway: There is no documented maximum. The driver is expected to operate at a speed appropriate for the task being performed, visibility, weather conditions, and other operational factors.

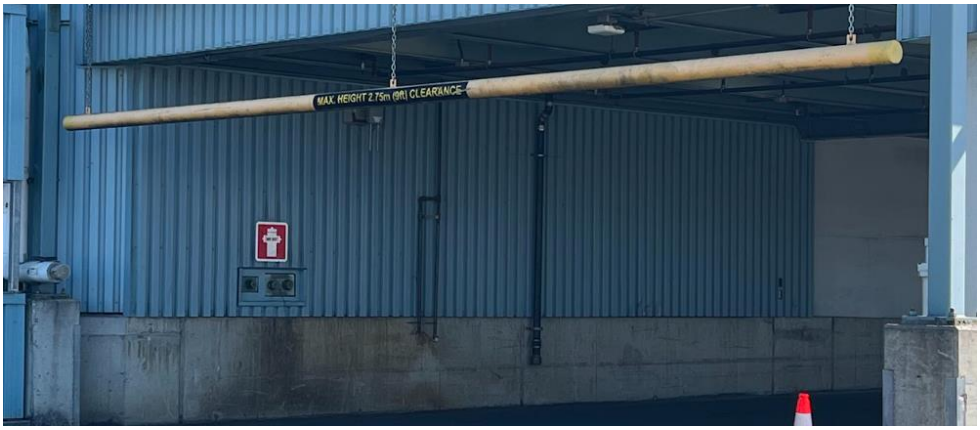
7.4 Head-of-Stand (HOS)

The Head-of-Stand (HOS) vehicle corridor runs adjacent to the terminal building at the front of aircraft parking stands.

It is important to know the vertical clearance of the HOS road on which work is being performed. Most HOS roads have a maximum height of **3.9 m (12.8 ft).** There are some areas that are lower, such as the Domestic Terminal Building, where clearances can dip as low as **2.9 m** (**9.5 ft)**

Labelled headache bars are installed over roadways with reduced clearance to indicate to drivers the maximum height that exists between the roadway and the terminal building.

The purpose of these Horizontal, elevated bars is to keep over-height vehicles from hitting the building.



7.5 Tail-of-Stand (TOS)

The Tail-of-Stand (TOS) vehicle corridor runs along the back of the aircraft stands, behind the tail of aircraft.

HOS and TOS vehicle corridors do not exist at every aircraft stand, but when they are available, drivers must use them to move around the airfield.

7.6 Airside Road & Vehicle Corridor Markings

The table below describes important lines and marking to be aware of when driving in a vehicle corridor:

Name of Marking	Description & Image	Purpose
Vehicle Corridors		Vehicle Corridors are defined by two parallel solid white lines about 7.5m apart with a dashed centerline down the middle.
Stop Markings	 	Stop Markings are used in vehicle corridors to indicate where drivers must stop and give right-of-way before proceeding. The depiction of aircraft painted in the red octagon indicates that drivers should look for taxiing aircraft before crossing. In some locations, aircraft may approach from several directions, including behind the driver.
Zipper Lines		Alternating white and black lines along the vehicle corridor indicate that the road crosses a taxilane or taxiway. Before crossing a Zipper Line, drivers must: • Check that there are no aircraft approaching. • Cross the taxiway/taxilane, staying in the vehicle corridor. • Drive quickly and safely across the surface, without stopping.

Tail (Wingtip) Clearance Line		Solid white line, sometimes outlined in black to make it more visible. This line marks the rear of the aircraft operating stand. If a Tail-of-Stand Road runs behind the stand, this line will be both the Tail Clearance line and the inside edge of the roadway.
Yield To Left and Right Markings		This marking indicates to drivers that they must yield to vehicles who are crossing active taxiways/ taxilanes.

8 Aprons

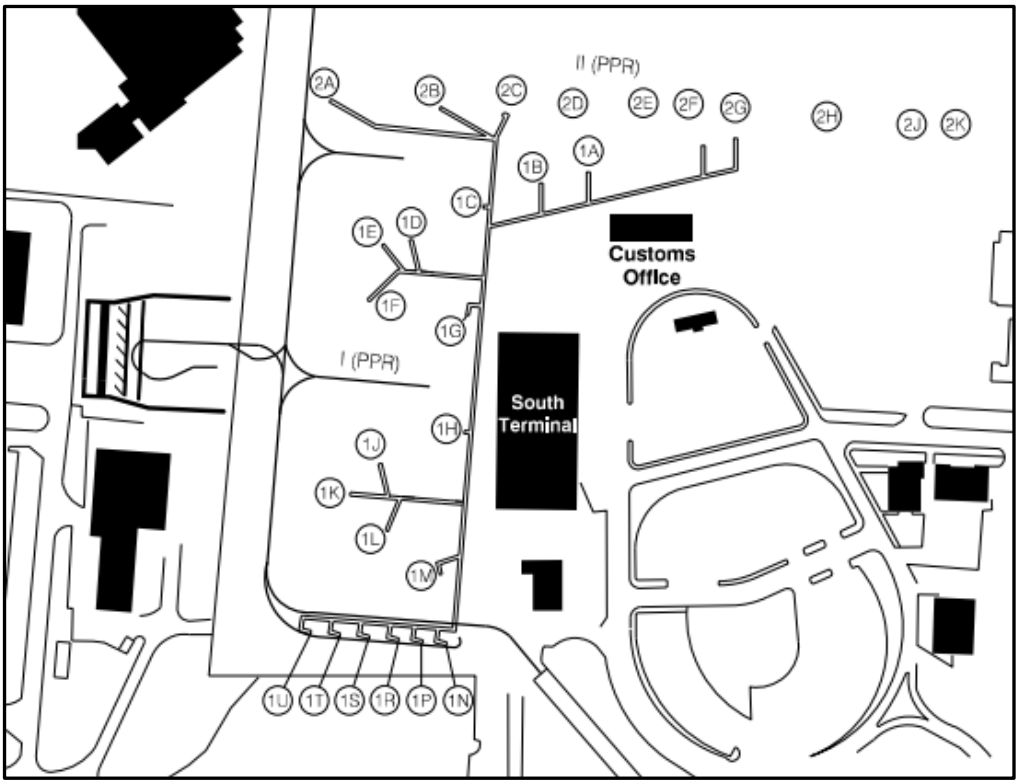
8.1 Primary Aprons

Aprons are uncontrolled areas on the airfield, which means clearance from ATC is not required to operate on them. They are used for loading, unloading, and servicing aircraft, as well as for the movement of vehicles, passengers, and pedestrians.

The following table lists the aprons at YVR and their primary functions:

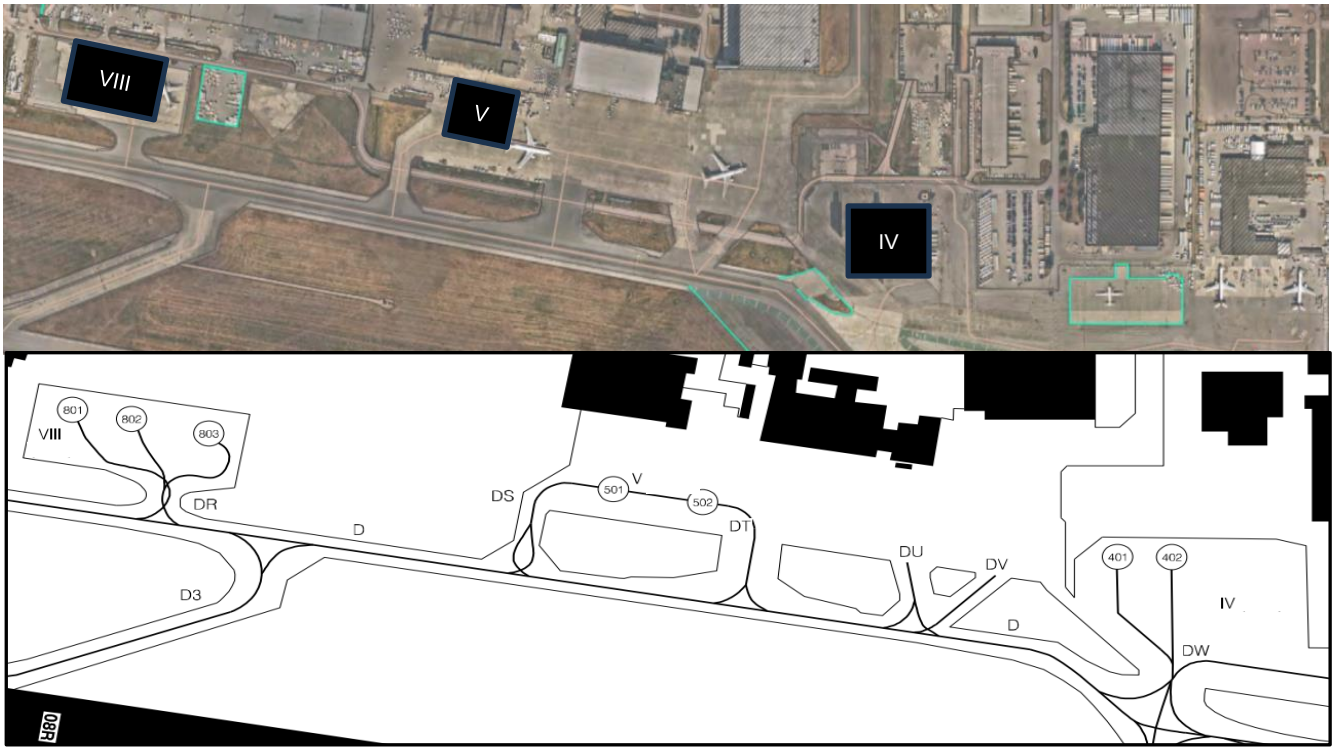
Apron Name	Primary Function	Gates/Parking Positions
Apron I (one)	Aircraft parking, South Terminal	Positions 1A – 1U
Apron II (two)	Aircraft parking, South Terminal	Positions 2A – 2K
Apron III (three)	Aircraft parking, south airport operations	Positions 301 - 303
Apron IV (four)	Aircraft parking, cargo	Positions 401 - 403
Apron V (five)	Aircraft parking, cargo	Positions 501 & 502
Apron VI (six)	Aircraft parking, Main Terminal	Gates 6 - 94
Apron VII (seven)	Aircraft parking, cargo	Private apron
Apron VIII (eight)	Aircraft parking, cargo	Positions 801 - 803
Apron IX (nine)	Aircraft parking, cargo	Private apron
West Pad	Remote aircraft parking, cargo operations, & de-icing.	Positions W1 – W19
East Pad	Aircraft parking	Positions E1 – E3
East Hard Stands	Aircraft parking & cargo operations.	Positions E10 – E19
South Pad	Aircraft parking	Positions S1 & S2
Ground Run-up Enclosure	Engine run-ups & de-icing facility	West of Apron I

Apron I and II These aprons are predominantly used for small, propeller aircraft servicing the south terminal.

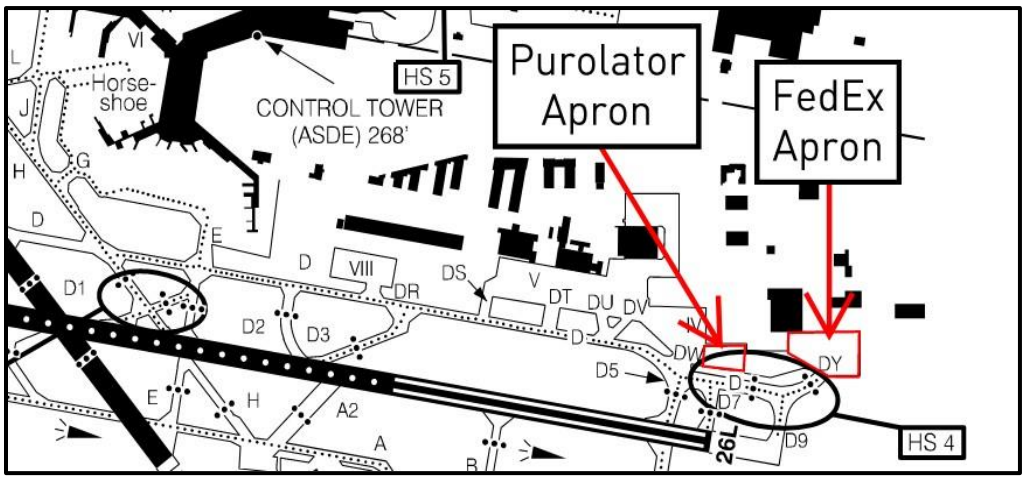


Aprons IV, V, and VIII

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



Apron IV, Purolator & FedEx Aprons
Purolator and FedEx Aprons both service smaller cargo aircraft, but FedEx can also accommodate larger jets.



The area circled in the image above has been identified as a “Hot Spot” (HS 4) for pilots, due to the complexity of aircraft traffic. It is important that drivers remain vigilant when driving in this area.

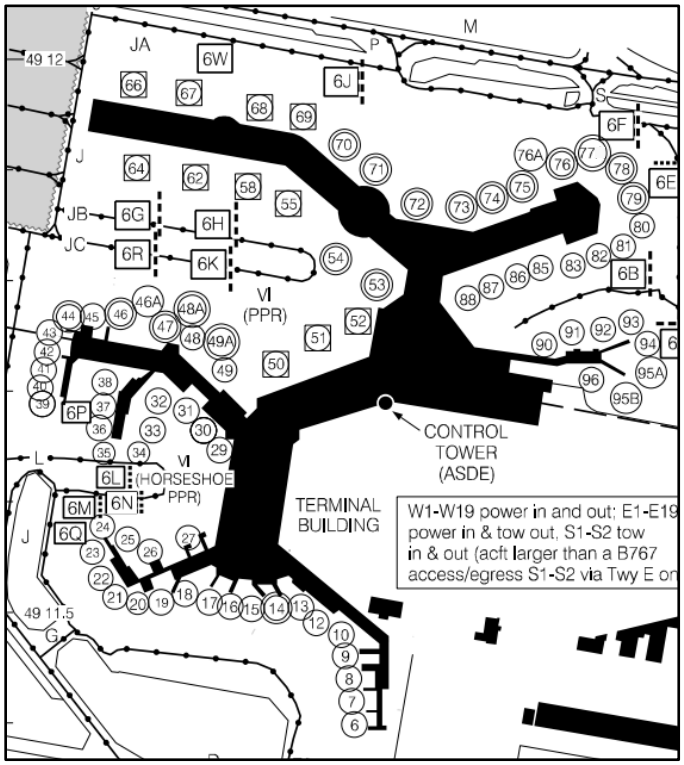
Apron VI

Apron VI is the apron that surrounds the Main Terminal and is by far the most complex on the airfield.

When on the Apron, ATC will only provide pilots and ground crews with an “advisory service*” during pushback. This means that they will inform pilots about traffic in the area, but they do not tell them when they should or should not push back.

*This advisory service does not include managing vehicle traffic on uncontrolled surfaces.

If the vehicle is equipped with a radio, monitoring the appropriate Ground Control frequency greatly improves driver’s situational awareness regarding aircraft movements.



The following are some indications that an aircraft is about to push back from a gate; any of these indications may not be present:

- Anti-collision lights on the top and bottom of the aircraft (red flashing lights) are illuminated.
- Wing walkers are in place at the aircraft’s wingtips.
- A tug is connected to the aircraft.
- The passenger boarding bridge has retracted.
- Ground service vehicles have moved away from the aircraft.

Apron IX, UPS Apron

The UPS Apron is a private apron that is north of the North Runway (26R/08L) and can accommodate larger jets.

This part of the airfield has been identified as a hot spot for drivers, as aircraft may be arriving or departing this apron. It is important that drivers remain vigilant when driving in this area.

8.2 Remote Parking & De-icing Aprons

At YVR, there are many Aprons dedicated to the movement of cargo. With over 300,000 tons of cargo transferred through YVR annually, the Aprons can be very busy. It is important for drivers to know where these Aprons are so that additional care can be taken when driving near these locations.

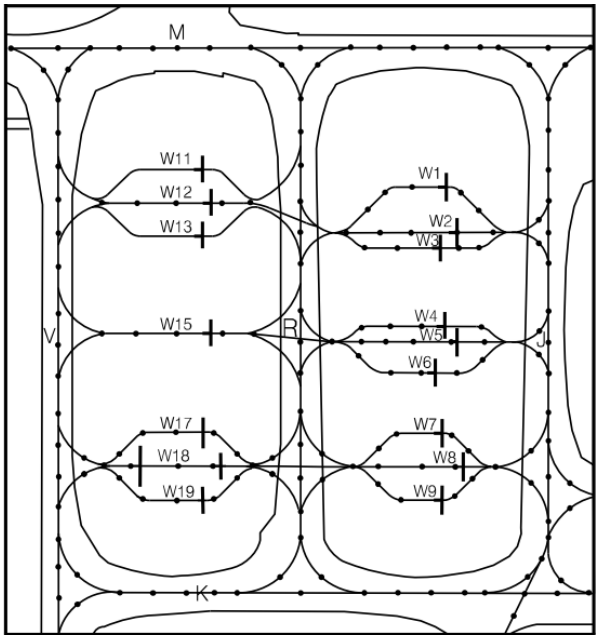
The following Aprons are used for remote parking and de-icing aircraft: West Pad, East Pad, East Hard Stands, and Ground Run-up Enclosure (GRE). It is important not to enter an area where de-icing operations are in effect, unless given authorization by the de-icing provider.
All signage and restrictions must be obeyed during de-icing operations.

West Pads

When not being used for de-icing operations, the West Pad is where most large cargo aircraft are parked.

At YVR, most of the de-icing takes place at the West Pad. The following are the parking positions used for this purpose:

- W1 to W9
- W11 to W13
- W15
- W17 to W19.



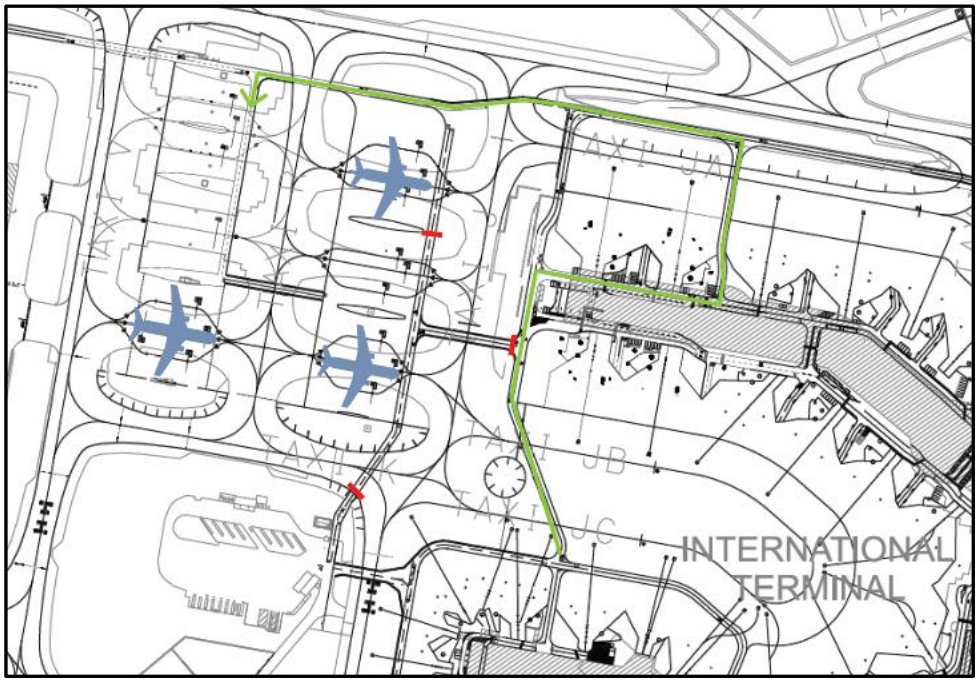
The positions are assigned based on aircraft size and pad availability.

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

- West Pad Vehicle Corridor (North of W4)
- West Pad Vehicle Corridor (South of Twy K)
- West Pad Connector Road (East side of Twy J)

Aeromag staff remove the barriers and re-open the road when de-icing operations have been deactivated.

During active de-icing, access to W11-19 is via the Canadian Service Road only.



East Pad & East Hard Stands

In emergency situations only, a light de-icing spray may be done on the East Pad (E1 to E3) and East Hard Stands (E10 to E19). When this operation is performed, pre-established safety measures must be used to ensure that the spray chemical (glycol) does not enter the Apron drains and local waterways.

Ground Run-up Enclosure (GRE)

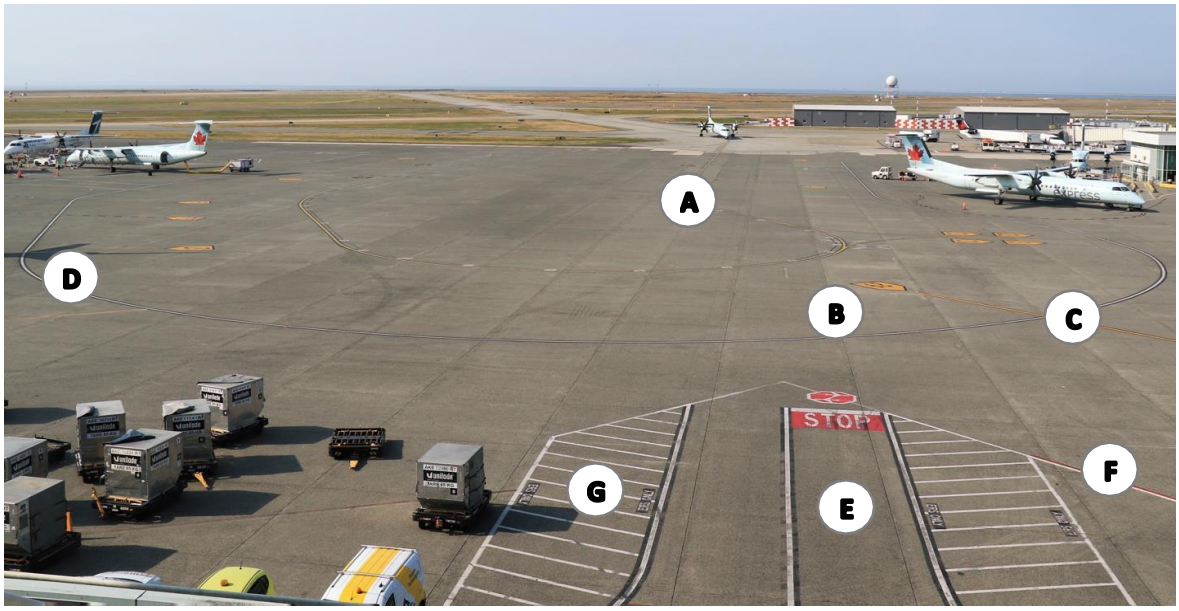
The GRE is a three (3) sided facility, adjacent to Apron I, and the primary de-icing location for smaller propeller and jet aircraft operating on the south side of the airport.

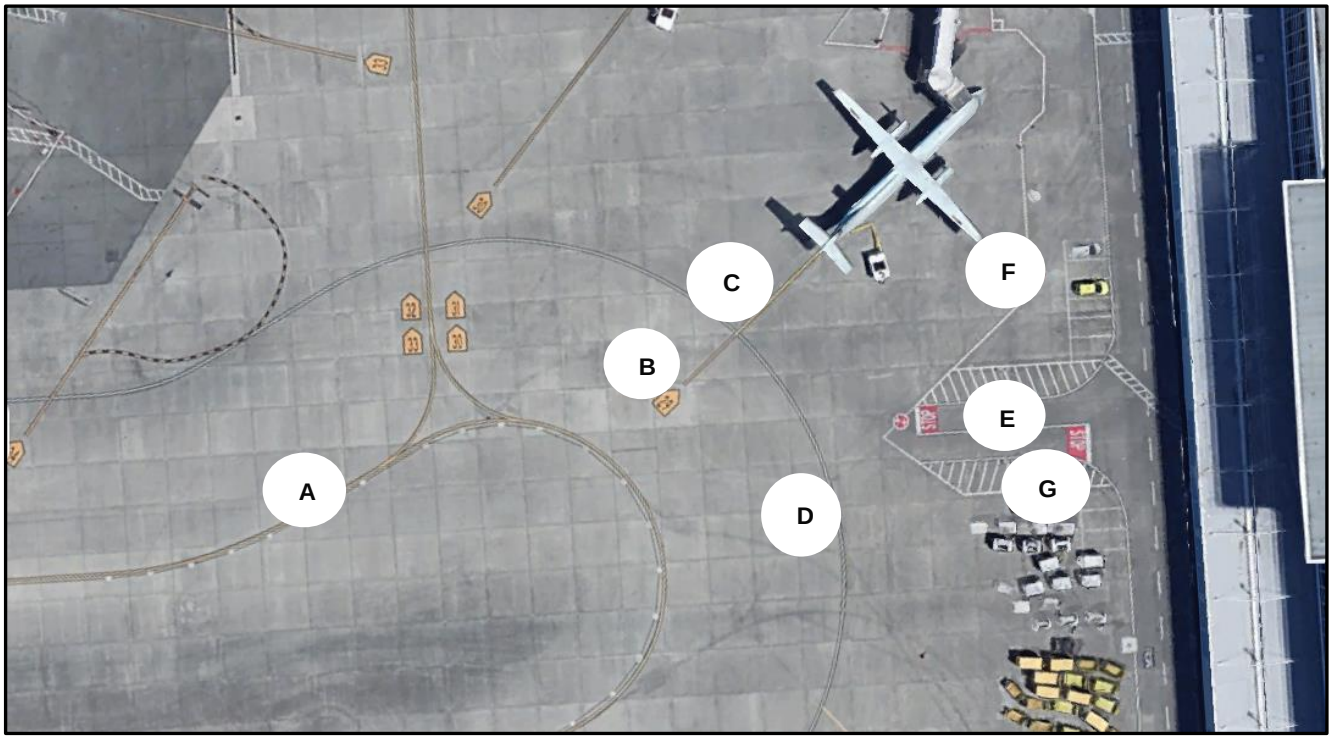
When driving on Apron I, it is important to check that aircraft are not entering or exiting this facility, as they have the right-of-way.

- When there is a small amount of ice 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.
- 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 occurred.

8.3 Airfield Lines, Markings, and Signs

The following photos show the layout of the 'DTB Horseshoe' Apron from two different perspectives.





A Aircraft taxi-line
B Stand identifier
C Aircraft lead-in line
D Tail / wingtip clearance line
E Vehicle corridor to ramp
F Apron safety line
G YVR Fire/Rescue staging areas

Below are important signs, lines, and markings that can be found on Aprons:

Name of signs	Description & Image	Purpose
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 license and clearance from ATC.
Fire & Rescue Parking ONLY		Airside areas designated as ERS ONLY are for YVR Fire & Rescue vehicles. Parking other vehicles or cargo in these areas is prohibited.
Lead-in Lines & Stand Identifiers		Pilots use the yellow and black lead-in lines to correctly align their aircraft on an aircraft stand. The parking position label for each lead in line can be found in the black and yellow stand identifier, also known as “price tag”.

Apron Safety Lines		There are two adjacent lines (one red, the other white) that indicate where equipment can be safely staged on an aircraft stand. A pilot will not approach a parking position unless all equipment is behind the red line. **It is prohibited for vehicles or equipment to be staged on the red side of an Apron Safety Lines, unless they are actively servicing a parked aircraft.**
Special Equipment Staging Areas		Small boxes on the Apron made up of two adjacent lines (one red, the other white) show where equipment can safely be staged. These small staging areas are within the footprint of the aircraft stand. Staged equipment must be no taller than **1.5 m (5 ft)** and can only be staged in these areas, for a maximum of **one (1) hour** before the aircraft is scheduled to arrive. All equipment must be removed from this location after the aircraft has departed.
Green Islands		Paved areas, painted green with yellow lines, indicate to both pilots and drivers that this location is not load bearing. There are instances in which access to these areas is granted for activities such as airfield lighting maintenance and snow clearing, but approval must be obtained from both the Airport Authority and ATC. The largest green island at YVR is between Taxiways Delta Whiskey (DW), Delta Yankee (DY), and bordered by Taxiway Delta (D). Drivers **must not** cross the green island when exiting Taxiway Delta (D).

Pedestrian Crosswalks/ Passenger Walkways		Passenger walkways are defined using white lines to show the safest and most direct route between the terminal and aircraft. Some pedestrian/passenger pathways have hatch marks, and some have a stencil of a “person walking”. Driving across or parking between these lines when passengers are enplaning or deplaning is prohibited.
Chock & Cone Storage Areas		Square, white boxes at the front of the aircraft stand are used for storing chocks and cones when not in use.

8.4 Unique Apron & Vehicle Locations

Domestic Horseshoe

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 connecting the aircraft stands.

Because of this unique design, there are additional rules that apply to this area:

- Before entering the Domestic Horseshoe, stop and look for other vehicles or aircraft operating in the area.
- When driving in the Domestic Horseshoe, follow the tail/wingtip clearance line. In this area, this is not considered gate-to-gate driving.
- Drive on the building side of the tail/wingtip clearance line, unless unable to maintain 7.5 m (25 ft) from a parked aircraft, in which case, the driver may cross to the other side of the line.
- Drivers are not permitted to cut across the Horseshoe. *

Some vehicle operators will be permitted to cut across the DTB Horseshoe for safety-related reasons such as surface inspections, FOD retrieval, and wildlife management.

YVR Fire & Rescue Parking

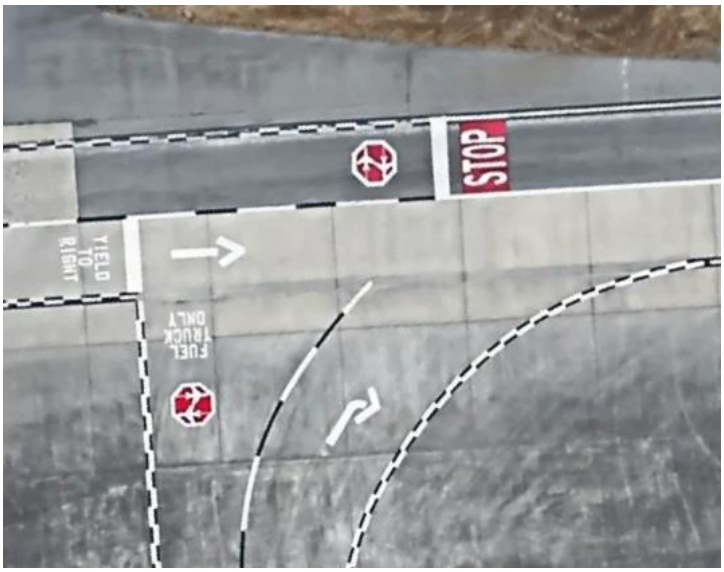
To ensure that emergency responders have parking on the Apron, near the entrance to the terminal, parking labelled “ERS ONLY” is included in the design of Aprons.

Other vehicles must not park in these areas.

Vehicle Corridor West of Pier D - “Fuel Truck Only Corridor”

Only operators with authorization by the AVOP Superintendent can use the vehicle corridor shown in green below.

The following image shows the paint markings on the north end of this corridor. Note the detail that indicates that this route is for “fuel trucks only”.



Wildlife Access Road

The Wildlife Access Road, shown in red, runs parallel to the North Runway (08L/26R). The only staff permitted to use this road are Wildlife Management Technicians (WMTs), Airfield Maintenance Staff (AFM), & Airside Safety Officers (ASO).

Due to the proximity of the road to the runway, this area has the following operational restrictions:

- A vehicle height restriction. Only small pick-up trucks are permitted on this road.
- No stationary/parked equipment, unless the North Runway is closed.
- Before accessing this area, prior approval must be obtained from Airport Operations (604.207.7022).

9 Taxiways

9.1 Controlled Taxiways

Most taxiways at YVR may not be accessed without approval from ATC.

The following taxiways are controlled and have vehicle corridor crossings. Under normal operating and weather conditions, vehicles may cross these taxiways without obtaining clearance from ATC.

During low visibility conditions these crossings become controlled, which means that D/A licensed drivers can no longer cross these taxiways without approval. Only those with D AVOP licenses and ATC clearance can cross at these locations.

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

9.2 Uncontrolled Taxiways

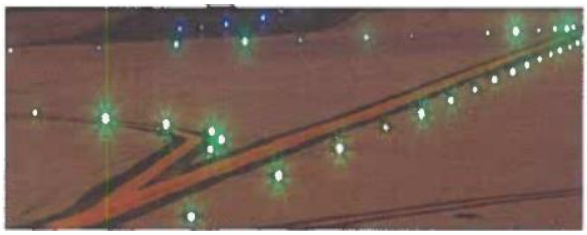
The taxiways listed below are not managed by ATC. This means AVOP holders may drive on these surfaces without obtaining clearance from ATC, but they must always give aircraft the right-of-way.

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

9.3 Taxiway Markings

Below are important taxiway-related signs, lighting, lines, and markings:

Name of signs	Description & Image	Purpose
Taxiway Location Signs		A black sign with yellow letters indicates the name of the taxiway that the driver is on. **Memory Tip:** "Black square, you are there."
Taxiway Directional Signs		Yellow signs with black letters indicate the direction of the taxiways. **Memory Tip:** "Black on yellow route to follow" *At night, the letters are white
Taxiway Edge Markings		Double yellow lines indicate the edge of a taxiway. Beyond that point, drivers and pilots must not assume that the surface is able to bear the weight of a vehicle or aircraft. Aircraft wheels must not cross these lines regardless of whether they are under power or being towed. If a driver notes that an aircraft's wheel(s) have crossed these lines, they must: 1.) If not in communication with ATC, contact Airport Operations. 2.) If the driver holds a D AVOP license and the vehicle has radio capability, contact ATC directly.

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.
Taxiway Centerline		A solid yellow line, outlined with black to make it more visible. Pilots and tow operators of both fixed and rotor wing aircraft use these lines to keep their aircraft centered on Taxilanes/ Taxiways, ensuring that the main wheels remain on the paved, load-bearing surface, and the wings do not hit obstacles.
Taxiway Centerline Lights	 	Lights are green and run parallel to the taxiway centerline.

Taxiway Intersection Marking & Lights		Marked by a single yellow dashed line perpendicular to the taxiway centerline. To increase the visibility of some of these locations, three (3) amber lights are installed at the point of intersection between the two painted lines. These markings identify some locations on the taxiway where aircraft or vehicles can safely stop and allow aircraft to pass on a perpendicular taxiway. They are not located at all intersections.
Aircraft Start Boxes / Taxi Position Fixes		Start Boxes/Taxi-Position Fixes are similar to Taxiway Intersection Markings, but they have an alpha-numeric designation. These markings serve two main functions: 1. A location where aircraft can push back to for engine start up. 2. A location where towed aircraft can hold while waiting for further taxi instructions.
Taxiway Edge Lights	  	The blue lights along the sides of taxiways make the edge of the surface visible at night.

Apron Entrance Lights	 	Double amber edge lights denote a taxiway entrance to an Apron.
Intersection of a road & Apron (lights)		Red lights indicate the existence of an intersection between a road and Apron or taxiway.

10 Runways

There are three (3) runways at YVR:

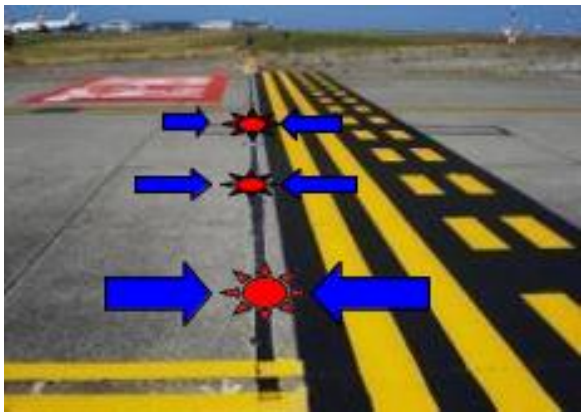
Name of Runway	Primary Function
South Runway (08R/26L)	This is the airport's main runway, which is operational 24/7. When the North Runway is being used, the South Runway is predominantly for departures.
North Runway (08L/26R)	This runway is not used during night-time hours, unless required. When it is in use, it is predominantly used for landings.
Crosswind Runway (13/31)	This runway is rarely used. During times of strong winds from the south, it may be put into operation.

The direction of aircraft arrival and departure is determined by the direction of the wind.

If the wind is stronger than 5 kts (knots), aircraft must take-off and land into the wind.

Below are the important runway-related signs, markings, and lighting:

Name of signs	Image	Purpose
Runway Markings		All runway markings are white and include: • Centerline • Edge • Designation markings (numbers & letters) • Threshold • Touchdown zone
Runway Holding Position Marking		The entrance of a runway is delineated by two solid and two dashed yellow lines co-located with Mandatory Instruction signs. The solid lines are on the taxiway side and the dashed lines are on the runway side. These markings also exist at helipads.

Runway Guard Lights **Wigwags**		Yellow flashing light on either side of Runway Holding Position Marking.
Stop Bars		The Runway Holding Position Marking is further enhanced by a single row of red inset lights. They protect the entry to Runways 08L, 26R, 08R, 26L during low-visibility operating conditions. To access the runway, during low visibility, ATC must provide clearance, and the Stop Bars must be turned off. **Pedestrians, vehicles, or aircraft are prohibited to cross lit Stop Bars.**
Mandatory Instruction Signs		These red signs, with white lettering, are co-located with Runway Hold Markings. They help indicate where pedestrians, vehicles, and aircraft must hold until they receive clearance to proceed onto the runway from ATC. MEMORY TIP: *"White on red, runway ahead."*
Runway Edge Lights		These white lights define the edges of the runways during periods of darkness or restricted visibility conditions.

11 Helicopter Operations

The following map illustrates the approved take-off and landing zones for helicopters at YVR.

Below are the important signs, markings, and lights related to helicopter operations:

Name of signs	Image	Purpose
Helipad Hold Position Markings		Hold markings at the entrance to helipads are the same as those along the runways. They are intended to show drivers and pilots where to hold until they obtain clearance from ATC.

Mandatory Instruction Sign		Red signs, with white lettering, co-located with Helipad Hold Position Markings.
Helicopter Touchdown Points/ Parking		Helicopter Touchdown Points/Parking are indicated by two yellow circles with a yellow “H” at the center.

IMPORTANT TAKE-AWAY

Runway Holding Position Marking/ Taxi Hold Positions:

- Traffic approaching these markings must start slowing well ahead and come to a complete STOP
- Use the start of the Enhanced Center Line as a guide for a safe stopping distance
- Drivers/pilots must obtain permission from ATC before proceeding.

12 Airport South Operations

Applicable to all AVOP designations

This section covers information specific to Airport South operations:

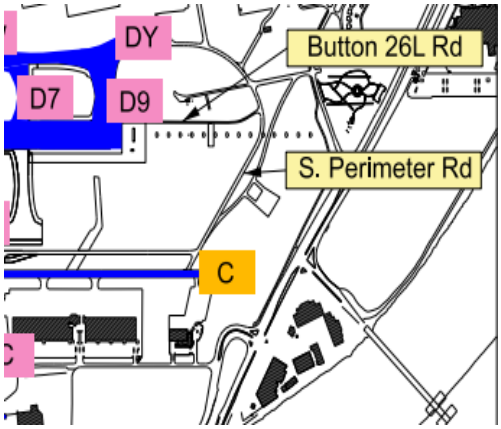
- Apron I
- Apron II
- South Perimeter Road
- Taxiway Charlie (C)
- Beaching Gear Vehicles
- Helicopter Operations

12.1 Apron I and Apron II

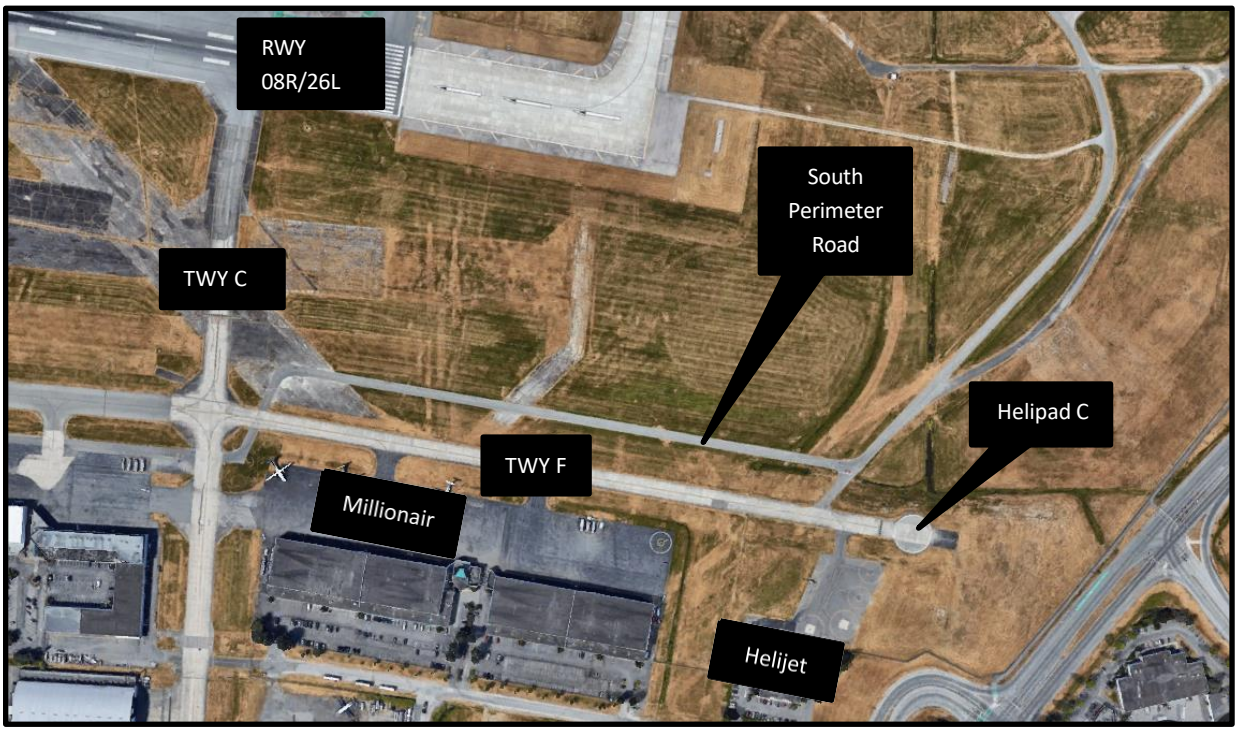
Apron I (One) and Apron II (Two) service a mix of small, fast taxiing aircraft. Vehicle operators need to be cautious when operating on these Aprons. Personnel are permitted in the operating stands only when performing their duties.

12.2 South Perimeter Road

The South Perimeter Road starts east of Taxiway DY, turns south and then runs parallel to Taxiway F, ending at Taxiway C.
Drivers must be vigilant when crossing Taxiway F, Taxiway C, and the FBO ramps, giving 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 Taxiway C, south of Taxiway F.
- Vehicle access to the Helijet Apron is via the South Perimeter Road crossing at Taxiway F, abeam the Helijet Apron.



When aircraft are ready to taxi (or be towed) their lights should be illuminated. When driving near Helipad C and Taxiway F it is important for drivers to look for these lights.

12.3 Taxiway Charlie (C)

Taxiway C, north of Taxiway F, is a controlled surface. Drivers must have a D AVOP license and ATC clearance to taxi onto this taxiway.

12.4 Beaching Gear Vehicles

When not towing an aircraft, beaching gear vehicles must operate like all other vehicles on the airfield.

When a beaching gear vehicle is loaded with an aircraft:

- Are not permitted on vehicle corridors or roads, they must operate like an aircraft, remaining on the Aprons and taxiways.
- They have the right-of-way over other vehicles, except for emergency vehicles.

12.5 Helicopter Operations

When operating at Airport South, drivers must remain vigilant for helicopter movements.

Helipads are ATC controlled surfaces. To access a helipad the driver must have a D AVOP and clearance from ATC.

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.

For more information about Helicopter Operations, see *Section 11*.

13 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
- Fueling and Servicing Operations
- Anti-Idling
- Parking / Unattended Vehicles
- Special Areas
- Traffic Accidents
- FOD – Foreign Object Debris
- Environmental Incidents
- Towing
- Cargo Handling
- Helipads

13.1 Airside Prohibitions

The following are not permitted on the airfield:

- Smoking, vaping, and the use of e-cigarettes, including inside of vehicles.
- Using any personal electronic devices (including mobile phones and tablets) or wearing headphones or ear buds while driving.
- Operating vehicles not authorized by the AVOP Superintendent, which includes motorcycles, mopeds, and motorized scooters.
- Vehicles propelled by the operator, such as bicycles, in-line skates, and scooters.
- Walking through security guard houses, unless authorized by Vancouver Airport Authority.

13.2 Pedestrians

Pedestrians are individuals in the airside environment without a vehicle.
They must obey the following rules:

- 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.

Drivers must look for, and yield, to pedestrians. This is especially important at night and when visibility is reduced.

13.3 Aircraft Marshalling Crews

Marshalling crews, on foot, should exercise additional caution. After an aircraft has pushed back, and the tug has been disconnected, the crews must exit the controlled surface as quickly as possible.

When possible, crews should be provided transportation back to the stand in a vehicle. To facilitate this, the ground handler vehicle driver will position the vehicle on a roadway near the aircraft's disconnection point, without entering the controlled surface. The marshalling crew will then walk off the controlled surface to access the vehicle parked on the roadway.

13.4 Rules for Vehicle Operations

The following are general rules that drivers must know and adhere to:

- Do not reverse unless necessary. When reversing, a lookout person should monitor the maneuver to ensure that it can be done safely.
- Do not tailgate. Maintain a safe distance from all other vehicles and equipment.
- Be aware of height, weight, or width restrictions of the surface/road being used.
- Never pass between an aircraft and a person marshalling an aircraft.
- Never overtake or pass a taxiing aircraft, even when driving in a vehicle corridor.
- Never travel under a passenger boarding bridge, unless in a vehicle corridor.
- When operating an over-height vehicle, the driver is responsible for ensuring that the vehicle has adequate vertical clearance.
- Do not travel through an aircraft stand unless working on that stand.
- Do not drive in between a returning marshalling crew after completing a pushback.

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 terminal and the aircraft.

13.5 Right-of-Way

In order of priority, always yield to the following:

1. Aircraft under power or being towed (Includes Beaching Gear) and vehicles exiting controlled surfaces.
2. Emergency vehicles responding to incidents (lights and/or sirens).
3. Passenger Buses.
4. Snow removal and Apron sweeping equipment.
5. Fuel tankers.
6. Airfield maintenance equipment, such as grass cutters.
7. Vehicle to an operator's right at an intersection.

When operating in the vicinity of an aircraft:

- Unless servicing the aircraft, remain at least 7.5 m (25 ft) away and do not drive under the aircraft's wing or tail.

- Never cause an aircraft, under power or under tow, to deviate from their route or adjust their speed. Aircraft always has the right of way.
- Be vigilant to the hazards related to jet blast. Maintain a safe distance from aircraft when their engines are running:
    - Remain two aircraft lengths behind any aircraft under power.
    - Increase this distance if the aircraft is starting to taxi, as pilots need to use more power to start moving, which results in stronger jet blast.
- Do not drive behind a recently parked aircraft until the engines are off. If the pilot needs to adjust the aircraft's parking position, they will need to use power to do so.

13.6 Emergency Vehicles

Drivers must yield and safely move out of the way when emergency vehicles are driving on the airfield with their lights and/or sirens on. These vehicles include:

- YVR Fire & Rescue
- BC Ambulance (BCAS)
- Richmond Fire Rescue (RFR)
- RCMP
- Security vehicles

In the event of an incident on the airfield, the **Emergency Responder Controlled Access Area** will be made visible by orange traffic cones, caution tape, emergency vehicles with their lights on, or a combination of these.

Depending on the severity of the infraction, drivers who enter a controlled access area, may be subject to one of the following:

- **Gross misconduct violation:** Operating a 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.

13.7 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.

13.8 Vehicle Gate Access, Airside Security

Some primary security line gates are automated for use with a RAIC pass. After entering or exiting through one of these gates, drivers must stop and wait for it to fully close before leaving. More than one vehicle may not enter at the same time, unless under escort.

If not escorting, the second vehicle, must wait until the gate is fully closed and the first vehicle has departed before opening the gate.

Canadian Aviation Security Regulations:

1. If a driver opens a security gate, they are responsible for controlling access through that point. They must prevent others from accessing it while the gate is open and ensure the gate is closed before driving away.

2. Entering through a security gate behind another driver is called *tailgating* and is an offence under the *Canadian Aviation Security Regulations, Sections 135, 292, and 446*.

13.9 Fueling 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 fueling pits. Most hydrant fueling pits are marked by a red circle containing a blue and yellow center.

Do not park behind an active fueling vehicle or catering truck servicing an aircraft.

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

Fuel tankers are prohibited from:

- Using airside tunnels, underpasses, and Head-of-Stand roads.
- Coming within 15 m (50 ft) of any building.
- Being left unattended, unless parked at the fuel compound.

13.10 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, drivers 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, the driver must receive clearance from ATC prior to crossing Taxiway J, unless crossing abeam Gates 43/44. This is the only crossing on Taxiway J that remains uncontrolled during low visibility conditions.

13.11 Vehicle Fueling

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

- Outside of a building, in designated areas.
- At least 15 m (50 ft) from a building.
- At least 7.5 m (25 ft) from an aircraft.
- The refueling vehicle must be at least 4.5 m (15 ft) from a source of ignition.
- Phones and radios must not be used in the vicinity of the refueling.

13.12 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, vehicles with gas-powered engines must be turned off when the vehicle is parked.

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 one (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 fifteen (15) minutes or less.

13.13 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**, that have been assigned to the driver's company.
- **Within Apron safety lines** and equipment staging areas for a maximum of one (1) hour before the scheduled arrival time of the next inbound flight*. All equipment must be immediately removed after the aircraft has departed from the gate.
  *Exception: Emergency response vehicles responding to an incident.
- Marked parking stalls. All vehicles must be backed into parking stalls, unless it is unsafe to do so, and using a guide person, if available.
- Unserviceable vehicle. If a vehicle has broken down outside the staging/parking area, and cannot be moved, you must contact Airport Operations and stay with the equipment until the ASO (or designate) can attend.

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

13.14 Vehicle Parking

The following must be considered when parking a vehicle on the airfield:

- Apply the parking brake and turn off the engine.
- 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.
- Remove the keys from unattended vehicles.

13.15 Traffic Accidents & Vehicle Damage

Involved In, Or Witnessed, an Airside Traffic Accident

Airside traffic accidents must be reported as described below.

In accordance with the laws of the Province of British Columbia[1], **if involved in an accident** the driver must:

- Stop at the scene of an accident and assist, if necessary.
- Call 911 for an ambulance, if necessary.
- Freeze the scene.
- Contact Airport Operations (604.207.7022) and provide the following information:
    1. Name
    2. Address
    3. License plate
    4. Insurance details
    5. Name(s) of other persons involved.
    6. Inform the Airport Operations Dispatch if the accident has caused property damage, injuries, an obstruction, or a disruption to airside traffic.
    7. If requested, provide an account of what you witnessed to enforcement personnel or the AVOP Superintendent or designate.

Damage a Piece of Parked Equipment

If a driver damages a piece of parked equipment, they must leave the following information in a visible location:

1. Name
2. RAIC #
3. Company name & phone number

1 Motor Vehicle Act, section 68(1) and Criminal Code of Canada, section 2.

13.16 Environmental Incidents

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

If a driver discovers a spill of unknown substances or hazardous materials, they must not attempt to clean up the material unless trained to do so safely.

When unfamiliar with the hazardous properties of a spilled substance employees working on the airfield must:

1. Retreat to a safe distance (at least 50m)
2. Prevent others from coming in to contact with the substance.
3. Contact Airport Operations (604.207.7022), providing them with the following information, if known:
   - Name and employer.
   - Location of the spill.
   - Type of material spilled.
   - Cause of the spill.
   - Source of the spill, the organization or individual involved.
   - Injuries that have occurred because of the spill.
4. Contact their company.

Employees must ensure that they are safe while waiting for response personnel and remain available to provide further information.

Never drive through any type of spill.

An employee's company and Airport Operations must be informed about all spills.

13.17 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 safety. 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. If the barrel is full or overflowing, call Airport Operations (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 Aprons or in bag halls. Pallets can only be stored in areas designated for this purpose and the associated wrappings and ties must be disposed of immediately.

The operator that brings pallets onto the Apron, is also responsible for removing them.

13.18 Towing

When transporting cargo or baggage, the vehicle operator is responsible for the following:

- Ensuring that units are securely attached to the towing vehicle or another towed unit.
- Securing the load that they are transporting.
- Checking that the weight of the cargo does not exceed the vehicle's capability.
- Confirming that they are not towing more carts/dollies than is permitted on their Apron.
- Reducing the number of units towed when visibility and/or road conditions deteriorate.

Max number of carts/dollies that can be towed:

- Apron VI: Six (6) small* or four (4) large**
- Bag halls: Six (6) small or four (4) large
- All other aprons: Four (4) Unit Loading Devices or four (4) cargo pallet dollies.
- Cargo dollies are not permitted to transit on the head of stand (HOS) road between piers B and C.

*Example of small carts/dollies: LD3s
**Examples of large carts/dollies: LD9/ LD8/ LD7/ LD6.

Operators are responsible for monitoring their loads and avoiding loss of cargo.

13.19 Container Storage

When not in use, 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 done in accordance with international agreements (ICAO – IATA).

13.20 Golf Carts

Most drivers operating golf carts must remain within the lines that make up the Head of Stand Road and vehicle corridors. However, the Superintendent, AVOP, has given approval to the company responsible for cleaning up FOD on the airfield to deviate from these roads, as needed.

All golf carts must:

- Comply with the requirements in *Vehicle Beacons* and *Vehicle Markings*.
- Be equipped with brake lights.
- Store bags so they cannot fall off while in motion, by only using approved transportation devices.

Items falling from vehicles can create hazards for other drivers, passengers, and pedestrians.

14 Weather

Applicable to all AVOP Designations

14.1 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*.

14.2 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**	▪ 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**	▪ 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 ▪ Engine Run-ups for maintenance purposes will not be approved.

RVR on Runway	Procedures / Application
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.

14.3 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.

14.4 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.

14.5 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)

14.6 MLAT Vehicle Transponder

When Pier D was expanded, air traffic controllers found that the new terminal building blocked part of their view of the airfield.

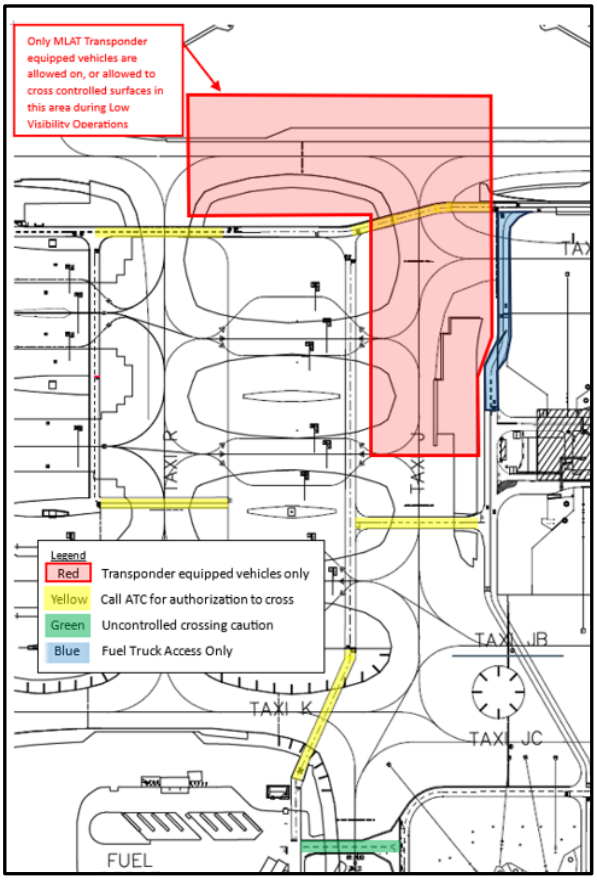
In response to this challenge, MLAT vehicle transponder technology was deployed. These transponders help to NAV Canada controllers to track vehicles on all manoeuvring surfaces on the airfield, which improves their situational awareness, reducing the risks to both vehicles and aircraft.

Low Visibility Conditions (LVO)

To tow an aircraft and/or operate a vehicle in LVO conditions in the area highlighted in the image below, drivers must:

1. Have a D AVOP
2. Be in communication with ATC.
3. Have an operational MLAT vehicle transponder* in their vehicle.

* The only MLAT Vehicle Transponders used at YVR are branded, VeeLo devices.



The shaded area covers the following taxiways and taxilanes:

- 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

14.7 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 use these taxiway crossings*.

There are white signs with red flashing lights to provide drivers with a visual cue that the crossing they are approaching has become “controlled”.

During LVO conditions, crossing these locations without a D AVOP and/or ATC Clearance is a Class A Violation.

- Taxiway H
- Taxiway V
- Taxiway R
- Taxiway J, at the Canadian Service Road*
- Taxiway K
- Taxiway P
- Taxiway S
- Taxiway T

The sign associated with the crossing at Taxiway J states “Transponder required in this area”. Unless authorized by ATC, all requests to cross at this location without a transponder will be denied.

** Fuel Tanker Movement (Taxiway P, S, T) Exemption: Permission must be authorized in writing by the Superintendent AVOP in special conditions for D/A holders involved in fuel tanker operations.*

No MLAT Vehicle Transponder

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

*During de-icing operations:

- Aeromag will restrict two of the roads leading to the West Pad to de-icing equipment only.
- Other drivers must use the Canadian Service Road to access the West Pad or Airport Operation Building.
    - These vehicles will also need an operational MLAT Vehicle Transponder on board, unless otherwise authorized by ATC.
    - If they do not have a transponder, they will need to contact Airport Operations, to request an escort across Taxiway J.

During LVO conditions, the following roadway/taxiway intersections do not become controlled. Drivers must stop at the stop signs, ensure that there is no traffic, and then they can proceed.

- **N7, Q, DS, DT, DU, DV, DW, DY, and J (at the Fuel Compound).**

14.8 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.

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.

When LVO is in effect:

- Free Range drivers must vacate the airfield and let the ASO know when they are off the field.
- 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 see pg.86) as required.
- Emergency Services response is automatically authorized (calling point-to-point) as required.

14.9 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).

14.10 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.

14.11 Engine Run-ups

Engine run-ups during reduced and low visibility conditions:

- **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 from the Apron will be approved in accordance with Vancouver Airport Authority Run-Up Procedures.

For more information about Run-ups at YVR, see *Engine Run-ups Operations Directive (AO6)*

During LVO conditions, requests to perform run-ups in the Ground Run-up Enclosure (GRE) will be denied, as vehicles would need to access the Manoeuvring Area to get to the GRE.

14.12 Thunder and Lightning (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, all airside activities and movement must stop, which includes the following:

- Fueling/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.
- Aircraft pushback and tows.

IMPORTANT: During Red Alerts, all personnel must promptly and safely evacuate the airfield and move to safe shelter.

14.13 Freezing Conditions

When air temperatures below 3°C are forecast, spilling 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.

15 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.

15.1 Operating Rules

To operate equipment in the manoeuvring area drivers must have a D AVOP designation. This also applies to 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.

A copy of the Restricted Operator's Certificate – Aeronautical 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 Manoeuvring Area and ATC Instructions

Authorization from ATC must be obtained 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 centerline as a guide while driving a vehicle on the taxiways. If a vehicle approaches in the opposite direction, drivers must shift to the right of the centerline to allow the other vehicle to pass. 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. Drivers should start slowing well ahead of the Enhanced Center line and come to a complete Stop with enough room to turn around if requested. This does not apply to Tow operators who cannot turn around, but speed and stopping point should be considered for the benefit of the tower controller.

In the absence of an enhanced center line, Stop 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:

Come to a complete stop before the hold-short line (See above). Instructions onto the active runway should be given on the **TOWER frequency only**. Do not proceed over the hold-short line until clearance to proceed is given by a NavCanada Controller.

1. Contact the controller on GROUND frequency (121.7 or 127.15) to request routing to the runway.
2. Once instructed, 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. Read back all ATC instructions in full.

> 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, drivers must:

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 centerline 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 when off the runway, providing the location.
7. Switch back to GROUND.

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

Self-Reporting

If a driver on the airfield accidentally drives onto a controlled surface without approval, this is called an incursion. When this occurs it is important that the Airport Authority understands the factors that caused the incursion, so that these situations can be avoided in the future.

> Self-reporting will be viewed positively when an incursion is being investigated.

Self-reporting is a process for operators to identify a possible safety issue on a controlled surface has occurred. This process allows operators to be removed from their current duties with no punitive action, while an investigation is underway.

Policy

The Airport Authority will not discharge, demote, suspend, or in any manner discriminate against an employee who has provided information related to acts, deficiencies, hazards, or occurrences that threaten safety, security or the environment at Vancouver International Airport. Every Airport Authority employee is responsible for their own actions and has the ability to self-report occurrences without risk of discipline.

During the investigation, a change in operator AVOP status might have to occur. This could mean a Free-Range operator is temporarily given a D AVOP, or a D/A AVOP until the investigation outcome is determined.

With a change in status, there is no determination of fault. This process is in place, to allow the continuation of some, or all duties, under supervision or restriction. If a violation is deemed, all violation points could be upheld, as **self-reporting does not grant or waive immunity to the infraction**. It does serve in favor of the employee during the Superintendents review.

The following is an example of when this could apply:

- A driver is on a manoeuvring surface and is instructed by ATC to hold short of a taxiway.
- They inadvertently drive past the hold short markings and stop.
- ATC does not notice the incursion on the taxiway, but the operator is aware.
- The driver should:
  1. Let ATC know immediately.
  2. Self-report to the Airside Safety Officer on OPS B, or through Airport Operations (604.207.7022), informing them of the taxiway incursion.
  3. The Airside Safety Officer will be dispatched to your location

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, nighty 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.

15.2 ILS Sensitive and Critical Areas

The Instrument Landing System (ILS) provides an approach path for 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.

Approval must be obtained prior to entering an ILS Critical Area. To obtain approval, drivers must contact Airport Operations (604.207.7022) and provide the following information:

- Driver's name.
- Name of company.
- Cell phone number.
- Reason for entry/description of work.
- Planned entry and exit times.

Once approval is granted, the driver will contact ATC (121.7 MHz or 127.15 MHz) prior to entering and after exiting the area.

15.3 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).

15.4 Engine Run-ups

After maintenance has been performed on an aircraft's engine, it must be run to ensure that it is working properly.

The location where the run-up is permitted is based on:

- The size of aircraft being tested.
- Whether the aircraft has propeller or jet engines.

- The type of run-up being performed (idle, mid-power, full power).
- The location from which the aircraft will be taxied.

Prior to performing a run-up, maintenance crews must obtain approval from Airport Operations. Taking current operational constraints into consideration, Airport Operations staff will provide the caller with an approved run-up location and heading.

Failure to request authorization for a run-up or performing it at a location or heading different than what was approved by Airport Operations will result in violation points against the operator's AVOP license.

For more information about Run-ups at YVR, see *Engine Run-ups Operations Directive (AO6)*

15.5 Vehicle Breakdown and Equipment Failures

If equipment fails while in the manoeuvring area, immediately notify ATC of the vehicle's location, describe 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 a handheld device, similar to a flashlight, to produce the following light signals.

Light signal	Instruction
Flashing green light	Proceed
Steady red light	Stop and hold 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 unable to turn the vehicle to face the control tower, call Airport Operations immediately (604.207.7022)

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.

15.6 Driver Disorientation

If a driver becomes lost or disoriented while driving, they should:

1 STOP.
2 Call ATC on the appropriate radio frequency or Airport Operations (604.207.7022) for assistance.

The Airside Safety Officer will be dispatched to the driver's location to help them regain their bearings.

15.7 Temporary Closure Barriers

When airfield surfaces need to be temporarily closed, the following signs and barriers will be deployed:

Name of signs	Image	Purpose
Taxiway Closure	 	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.
Runway/ Controlled Taxiway Closures		A large “X” with white lights placed on the end of a runway or taxiway indicates that the surface is closed.

15.8 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.

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

16 Enforcement & Violations

16.1 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 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.

16.2 Operator Cooperation and Compliance

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

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

Verbal abuse, threatening behavior, 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 respond immediately to any situation that compromises or threatens to compromise airside safety. When there is reasonable doubt about an AVOP holder's knowledge or ability to operate safely, action to ensure compliance may be taken by the enforcement personnel. The Superintendent Airside Vehicle Operations may, with or without cause, require an AVOP holder to retake both the Knowledge and Practical Tests.

> Individuals must not interfere with personnel authorized to enforce the ATDs. Verbal abuse and/or threats will not be tolerated and will be deemed a Gross Misconduct violation.
>
> Unless it is unsafe to do so, drivers/individuals must follow the instructions of enforcement personnel. RAIC/AVOPs must also be surrendered upon command.

16.2 Violations

If enforcement personnel conclude that an operator of a vehicle has failed to follow any of the rules or regulations stipulated in this document, they will issue a *Violation Notice*.

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

16.3 Suspension of Restricted Area Identification Card

An employee's RAIC will be suspended immediately for twenty-four (24) hours if they:

- Smoke / Vape on the airfield.
- Operate a vehicle airside without a valid AVOP.
- At the discretion of the YVR Operations Shift Manager (S1)

16.4 AVOP Violation Classes and Points

There are five (5) 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 is not an AVOP violation, as the employee does not hold a AVOP license:

Driving Without an AVOP
Individuals driving on the airfield without a valid AVOP designation will receive the following: • An immediate **twenty-four (24) hour** suspension of all RAIC privileges. • Suspension of airside access privileges for **fifteen (15) days*.** Their RAIC will be restricted to terminal access only.   ○ *The first 24-hour suspension is part of the total 15-day suspension period. • Airside driving privileges revoked for **twelve (12) months.** **NOTE**: Not knowing the AVOP requirements is not an acceptable excuse.

The following table lists AVOP violations and associated points:

Gross misconduct violations: 15 points
Encouraging, directing, or permitting another person to operate a vehicle on the airfield without a valid AVOP designation.
Operating a vehicle 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 vehicle in a manner that a reasonable person would consider likely to endanger the life of other persons.
Operating a vehicle with **any** amount of alcohol or non-prescription drugs in the operator's blood system. Note: The odor of drugs or alcohol emanating from an operator is sufficient proof for this violation.
Making an unauthorized entry to the runway or crossing illuminated stop bar without authorization from Air Traffic Control.
Driving with an "Escort Required" RAIC or block pass without the appropriate security escort.
Not following the instructions of Air Traffic Control.
Disobeying, interfering with, and/or refusing to cooperate with enforcement personnel, which includes: • Failing to stop when requested. • Failing to surrender their RAIC/AVOP upon demand. • Threatening, assaulting, or verbally abusing enforcement personnel
Class A violations: 9 points
Operating a vehicle without exercising reasonable care and attention for other persons or property. This includes, but is not limited to: • Excessive speeding (10km/h or more above the posted limit) • Tailgating • Erratic driving
Accessing a controlled taxiway without authorization from Air Traffic Control.
Performing an unauthorized engine run-up.
Operating a vehicle in an area not permitted under the operator's AVOP license.
Class B violations: 6 points
Failing to yield to and/or overtaking an aircraft, regardless of whether it is taxiing or being towed.
In the event of an accident, failing to assist injured persons, regardless of whether they are involved or simply a witness.
Failing to report a vehicle accident.
When a vehicle becomes unserviceable on the airfield: • Failing to immediately report the location of the vehicle to Airport Operations and/or • Failing to take steps to have the vehicle removed.

Driving under an aircraft wing or tail unless they are servicing that aircraft.
At ground loading aircraft stands, driving between the terminal and aircraft when passengers are actively enplaning or deplaning.
Driving between an aircraft and a person marshalling an aircraft.
Leaving a vehicle or piece of equipment unattended on an airside road or movement area.
Driving while using a personal electronic device, which includes mobile phones, headphones and ear buds.
Driving at a speed that is excessive, taking into consideration the traffic, visibility, and/or weather conditions.
Class C violations: 3 points
Having more passengers in a vehicle than is legally permitted.
Knowingly depositing, creating, or failing to pick up FOD.
Driving up to a maximum of 10km/h over the posted speed limit.
Failing to obey airfield signals, signage, and markings.
Driving under a passenger loading bridge, except when in a vehicle corridor.
Failing to follow a vehicle corridor.
Failing to yield to: • Emergency vehicles with activated emergency lights. • Snow removal or Apron sweeping equipment. • A fuel truck/tanker. • Airfield maintenance equipment (e.g. Grass cutters) • Passenger 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 behind a vehicle that is fueling an aircraft.
Leaving a fueling vehicle, including a propane tanker, unattended.
Refueling an aircraft or vehicle: • Within 4.5 m (15 ft) of a source of ignition. • Within 7.5 m (25 ft) of an aircraft. • Inside a building or enclosed structure. • Outside the refueling areas designated by the Airport Authority.
Using telephones or radios where refueling is taking place.
Failing to use pedestrian corridors when crossing an Apron where applicable.
Performing an authorized run-up at a heading different from what was specified.
Failing to immediately report a spill of hazardous or unknown substances to Airport Operations.
Driving a golf cart in an unauthorized location.

Employing improper towing procedures that results in loss of cargo.
Failing to adequately secure loads.
Operating a motorcycle, moped, motorized bicycle, or motorized scooter.
Riding of bicycles, Use of in-line skates, and scooters
Failing to wear a safety vest when on the airfield (even when inside a vehicle).
Using skateboards, inline skates, scooters, or other operator-propelled equipment.
Walking through security guard houses.
Driving through an YVR Fire & Rescue Controlled Access Area.
Driving without a seatbelt.
Class D violations: 2 points
Failing to comply with any other regulation in this document will be deemed a Class D violation.

16.5 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 a driver is speeding (Class C violation) while driving outside of a vehicle corridor (Class C violation), a total of 6 violation points will be assessed.

16.6 Suspension of AVOP 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 coordinating the removal of the operator's AVOP designation with the AVOP Office for the duration of the suspension.

Drivers are subject to the following consequences when they 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

16.7 Expiry of Violation Points

Violation points accumulate on the operator's AVOP and only expire **one (1) 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.

Example of Violation Point Accumulation and Expiry

Any violations received within a one (1) year period will accumulate on the driver's 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

16.8 Suspension Period

Suspension of AVOP driving privileges is for working days. These are days when the driver would have worked on the airfield if they were not suspended. They do not include holidays, days off, vacation days, Shift Trades or days when the driver is 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 **thirty (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.

16.9 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.

16.10 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.

16.11 Violation Notice Reviews and Appeals

Right of Review: Notices Not Containing a Gross Misconduct Violation

If the Violation Notice is not related to a gross misconduct violation, employees may request a violation review by filing a written submission to the Superintendent, AVOP **within thirty (30) days** of the Violation Notice.

All written submissions can be dropped at the AVOP office (DTB Level 1) or emailed to AVOP@yvr.ca and should contain:

- A description of what occurred.
- Why there was a failure to comply with the ATDs or why the individual feels that the suspension period should be reduced.
- Contact details (Email Address) of the person who is appealing.

Operational necessity and/or not knowing the rules will not be considered a valid excuse for failing to follow the ATDs.

Superintendent, AVOP (or designate) will investigate the merits of the violation. After the review one of the following may occur:

- The Violation Notice will be completely or partially dismissed.
- The violation may be assigned a lower class of infraction.
- The suspension period could be reduced.
- The Violation Notice will remain unchanged.

The AVOP Superintendent (or designate) will provide the driver's employer with a letter explaining the results of the review and the decision rendered**.**

Automatic Review: Notices Containing Gross Misconduct Violations

Gross misconduct violations are considered hazardous and irresponsible actions that pose an unacceptable risk to airside safety. If a gross misconduct violation has occurred, the following will take place:

- The employee's AVOP will be seized immediately.
- The employee's AVOP privileges will be suspended for twenty (20) working days.
- The employee will be required to retake and pass the AVOP Knowledge and Practical Tests, with a YVR AVOP Examiner.

All Gross Misconduct violations are referred to the Superintendent, AVOP (or designate) for review. The AVOP Superintendent may review relevant video footage, reach out to the driver, the company signing authority and/or witnesses to gain a more fulsome understanding of the incident.

After the review, the Superintendent, AVOP (or designate) will do one, or more, of the following:

- Maintain the Violation Notice as submitted.
- Cancel all, or part, of the Violation Notice.
- Downgrade the class of violation.
- Increase or decrease the period of suspension from the automatic twenty (20) days.

The Superintendent, AVOP (or designate) will provide notification, by letter, to the driver's employer, providing the results of the automatic review of the gross misconduct violation.

Self-reporting will be viewed positively when a Gross Misconduct violation is being investigated.

Automatic Review: Accumulation of More Than 15 Violation Points

An accumulation of AVOP violations may indicate a need for retraining. If a driver has accumulated more than fifteen (15) violation points, the Superintendent, AVOP or designate:

- Will suspend the employee's driving privileges for a period of **up to twenty (20) days**.
- May require that the employee retake and pass the Knowledge and Practical Tests.
- May identify other training deemed necessary for the employee prior to reinstating the AVOP license.

Appeal to Director Airside Operations

To appeal against the decision made during the review, a written submission must be provided to the Director, Airside Operations, within **fourteen (14) days** of receiving the results of the review.

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 the driver's employer of the results of the appeal

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

decision.

17 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 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 license 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

The operator of a vehicle under escort:

- Will 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 must:

- Hold a valid RAIC and AVOP for the areas in which they 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.

All PSL Gates must remain closed unless vehicles and equipment are actively accessing the airfield. Not following this could result in a RAIC seizure.
See PSL Gate Protocol Operations Directive (A23)

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

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).

If you are escorting and you arrive at an intersection or stop sign, wait for the competing traffic to clear before you proceed with your escort convoy.

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. Once the field is set up for LVO, this will be communicated by:

- ASO (Airport 1) over the radio on the *OPS B* channel, and
- Airport Operations, via an Everbridge Notice, for those not equipped with a radio.

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 to the airside vehicle corridors).

A D/A is required to drive on the airside roads. Equipment can be dropped off at a location that is well marked / delineated and moved 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, taillights, 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. The only MLAT Vehicle Transponders used at YVR are branded as VeeLo.

For more information, see *Chapter 14, Section 14.6.*

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

Restricted Operator Certificate – Aeronautical Examinations:

Innovation, Science and Economic development 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 before speaking, to ensure that another transmission will not be interrupted.
- 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.
- When speaking on the radio, drivers must not shout, accentuate syllables artificially, or speak too rapidly.
- Conversation should be kept short, using words and phrases that are standard airport terminology.
- Repeat hold short instructions followed by the vehicle’s call-sign.
- When in the manoeuvring area, monitor the radio. Permission must be granted by ATC before a driver can step away from the radio when in the manoeuvring area.
- The driver must inform ATC when their vehicle has exited the manoeuvring area.
- Report completion of a movement after it has been completed. For example, drivers should report being off a runway once the vehicle is at least 60m (200 ft) away from the runway edge, not while in the process of leaving.
- Drivers must fully understand the instructions provided by ATC before coming within 60m (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, the driver must visually confirm that an aircraft is not approaching the route that they have been provided by ATC.
- Drivers must know and use the correct radio call sign for their vehicle or piece of equipment.
- Never assume anything. Reconfirm when necessary.
- Only pilots and Ground Controllers should use the term “clear” or “clearing”. Drivers, including those towing aircraft, must use the terms “vacated” or “off” when reporting to ATC that they are no longer on a controlled surface.

ICAO Phonetic Alphabet and Numbers

Always use the ICAO phonetic alphabet when phonetics is required for clarity in radio-telephone 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 radio-telephone 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*:* “Ground, Grader One Seven Four, cancelling request”

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: An 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.

Aircraft Stand: The part of the airfield where an aircraft is parked, this includes gates associated with the terminal and remote parking positions.

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, 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.

Airside Vehicle Operators Permit Violation: This is a violation issued when a vehicle operator is found to be out of compliance with the rules and regulations contained within these *Airside Traffic Directives*.

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: The 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

Fixed Wing: Is a heavier-than-air aircraft, such as an airplane, which is capable of flight using aerodynamic lift.

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 area of operation.

Freeze the Scene: Once the emergency response team has ensured that the injured are given the necessary first aid/ medical attention, that all workers are accounted for, and that there is no ongoing danger at the scene, the important second step is to FREEZE the scene. In other words, keep everything intact. Preserve the scene as it was at the time of the incident.

Gate: An aircraft stand that is associated with a bridge or Apron loading stand at the terminal.

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.

Hot Spot: Areas on the airfield that have been identified as higher risk, usually due to the complexity of traffic in the 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 centerline 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.

Jet Blast: The force of the wind behind the engine of a jet aircraft.

Localizer: Part of the Instrument Landing System that sends out a vertical beam along the centerline of the runway and helps the pilot to remain lined up with the runway during an instrument approach.

Low-Visibility Operations: Is when the horizontal measurement of visibility (RVR) along a runway is between 1,200 ft and 600 ft. 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 meters, 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.

Point to Point: A controlled movement routing that is given by a NavCan controller to an operator between single points or multiple points. These such instructions are primarily given to Aircraft, Aircraft operators under tow or vehicles transiting the manoeuvring area. There is a standard way to communicate, please see Appendix E.

Prop Wash: Force of air generated by an aircraft propellor.

Reduced Visibility Operations: Is when the horizontal measurement of visibility (RVR) along a runway is between 2,600 ft and 1,200 ft.

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 always displayed 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.

Rotor Wing: A lifting rotor or wing which spins to provide aerodynamic lift

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.

Runway Visual Range: Is the horizontal measurement of visibility along a runway, measured in feet.

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.

Taxilane: A path for the taxiing of aircraft, which provides access from taxiways to aircraft parking positions and other terminal areas

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) taxilanes 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.

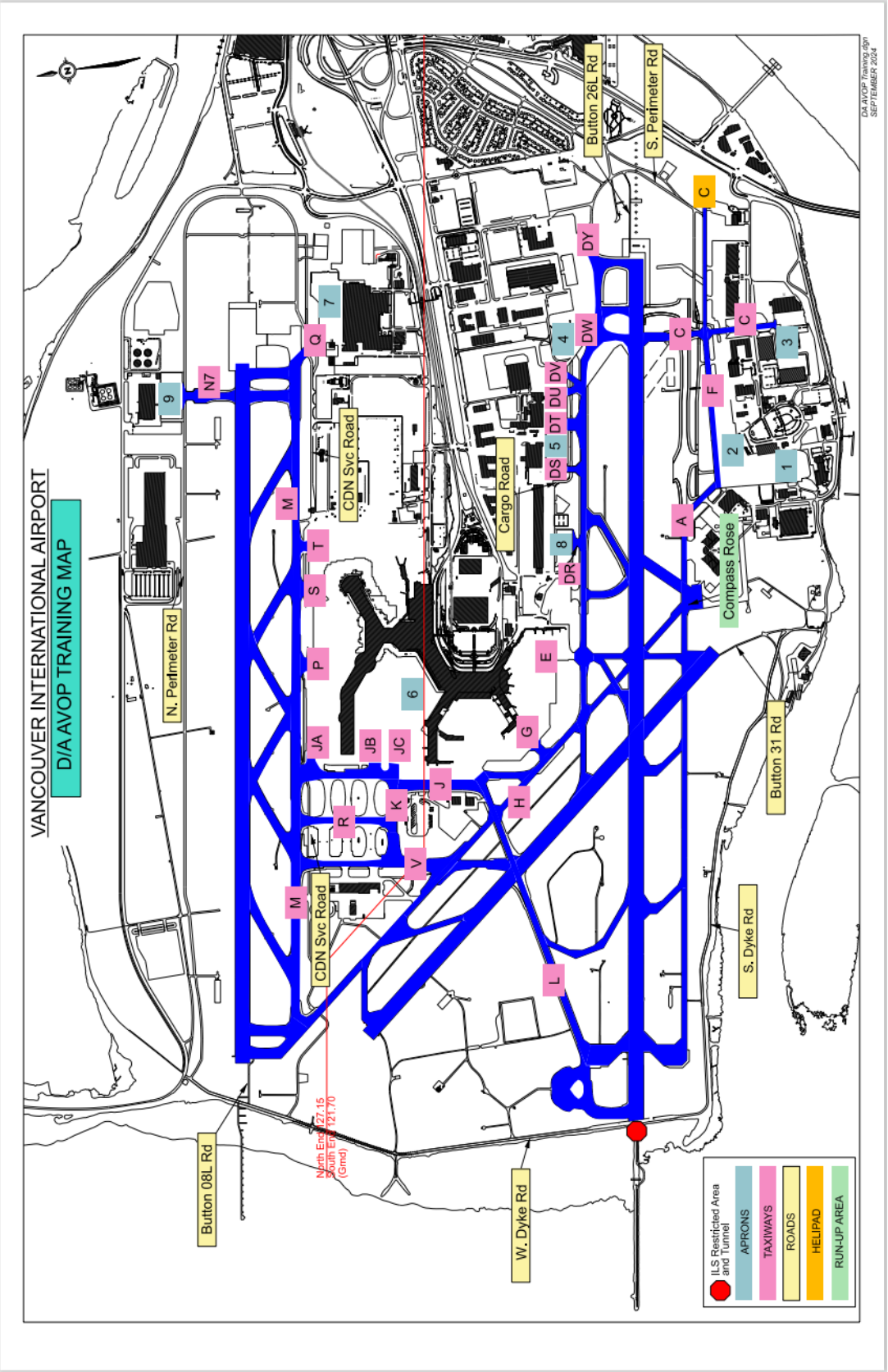
Vehicle: A conveyance used to transport personnel and/or cargo. Examples include tugs, cars, trucks, vans, buses, and aircraft beaching gear.

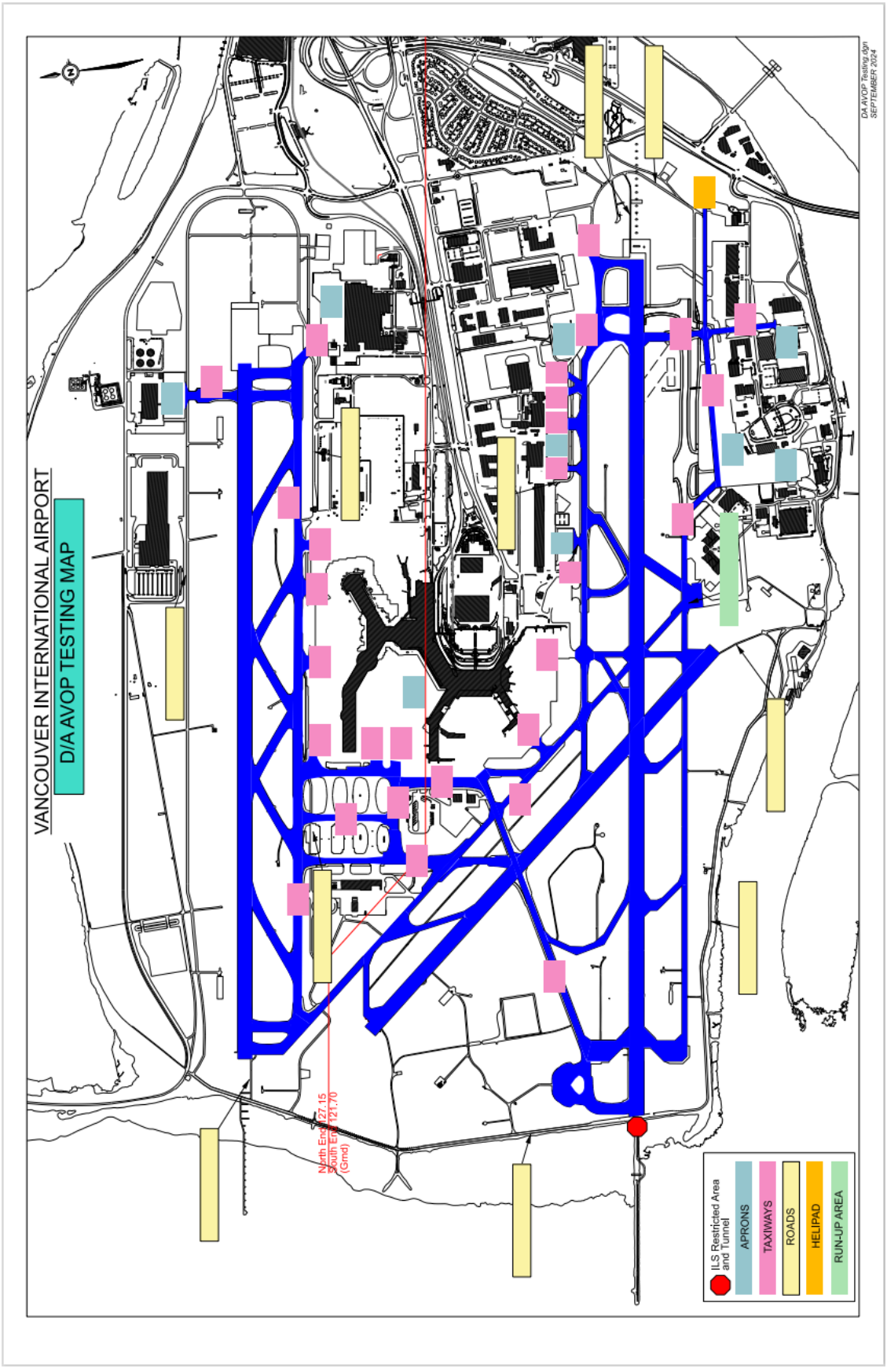
Vehicle Corridor: Part of the Apron identified with painted lines in which vehicles are authorized to travel.

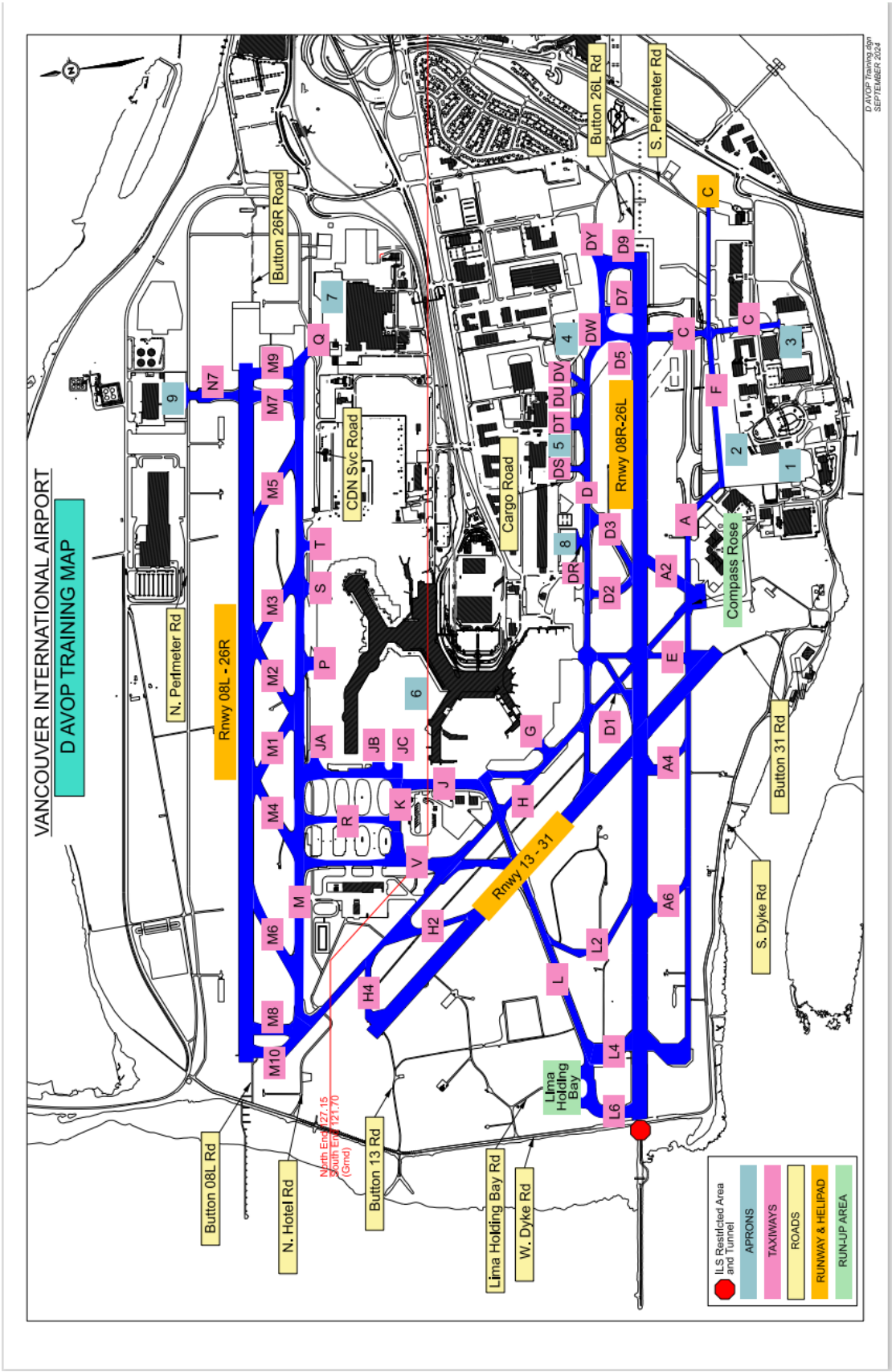
Appendix G: Radio Frequencies and Phone Numbers

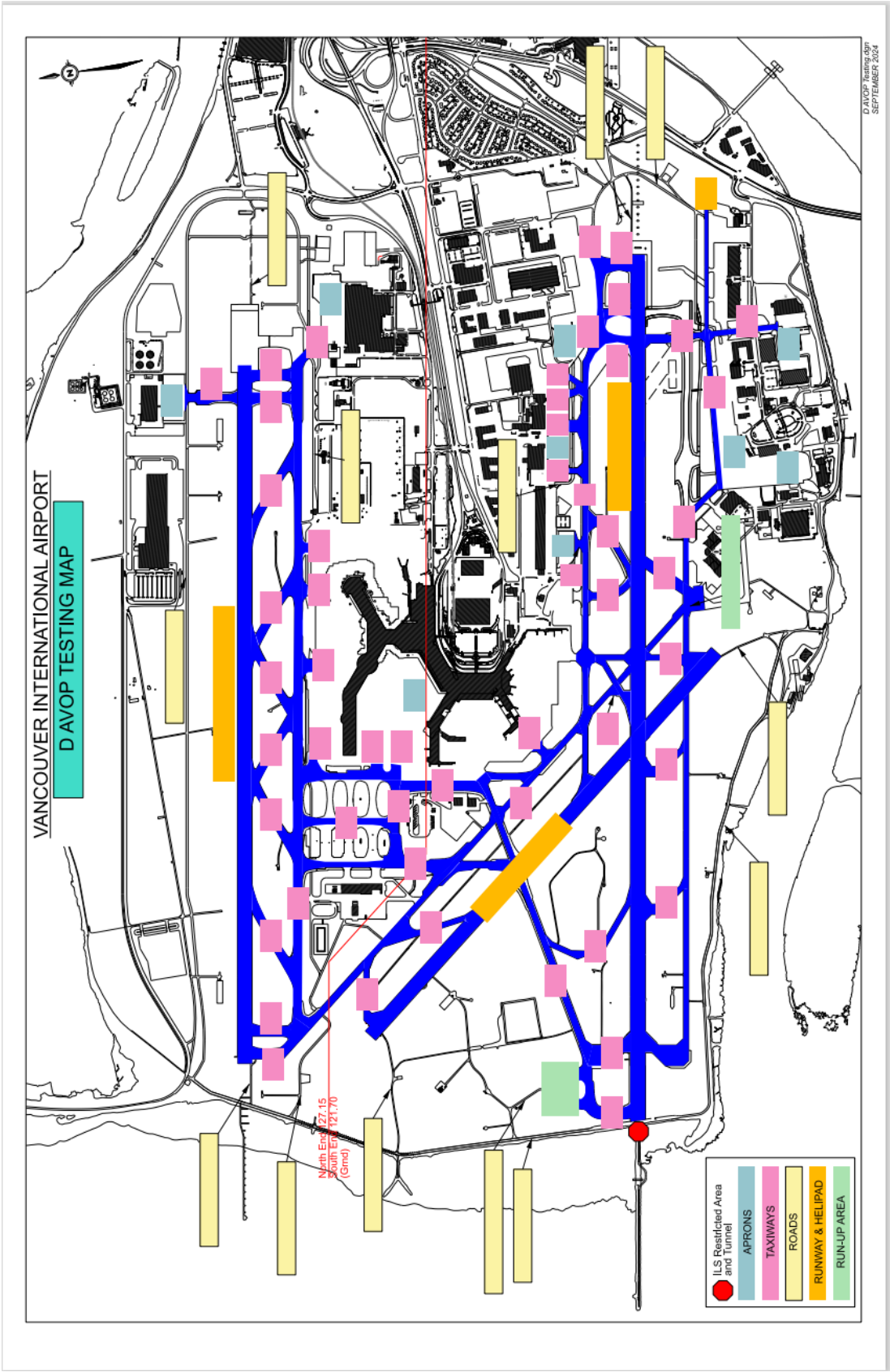
NAV CANADA Radio Frequencies	
North Ground	127.15 MHz
South Ground	121.70 MHz
North Tower	119.55 MHz
South Tower	118.7 MHz
ATIS	124.60MHz
Phone Numbers	
Airport Operations	604.207.7022
Airside Vehicle Operations	604.276.6774
Access Control	604.276.6177
All emergencies	911, then 604.207.7022

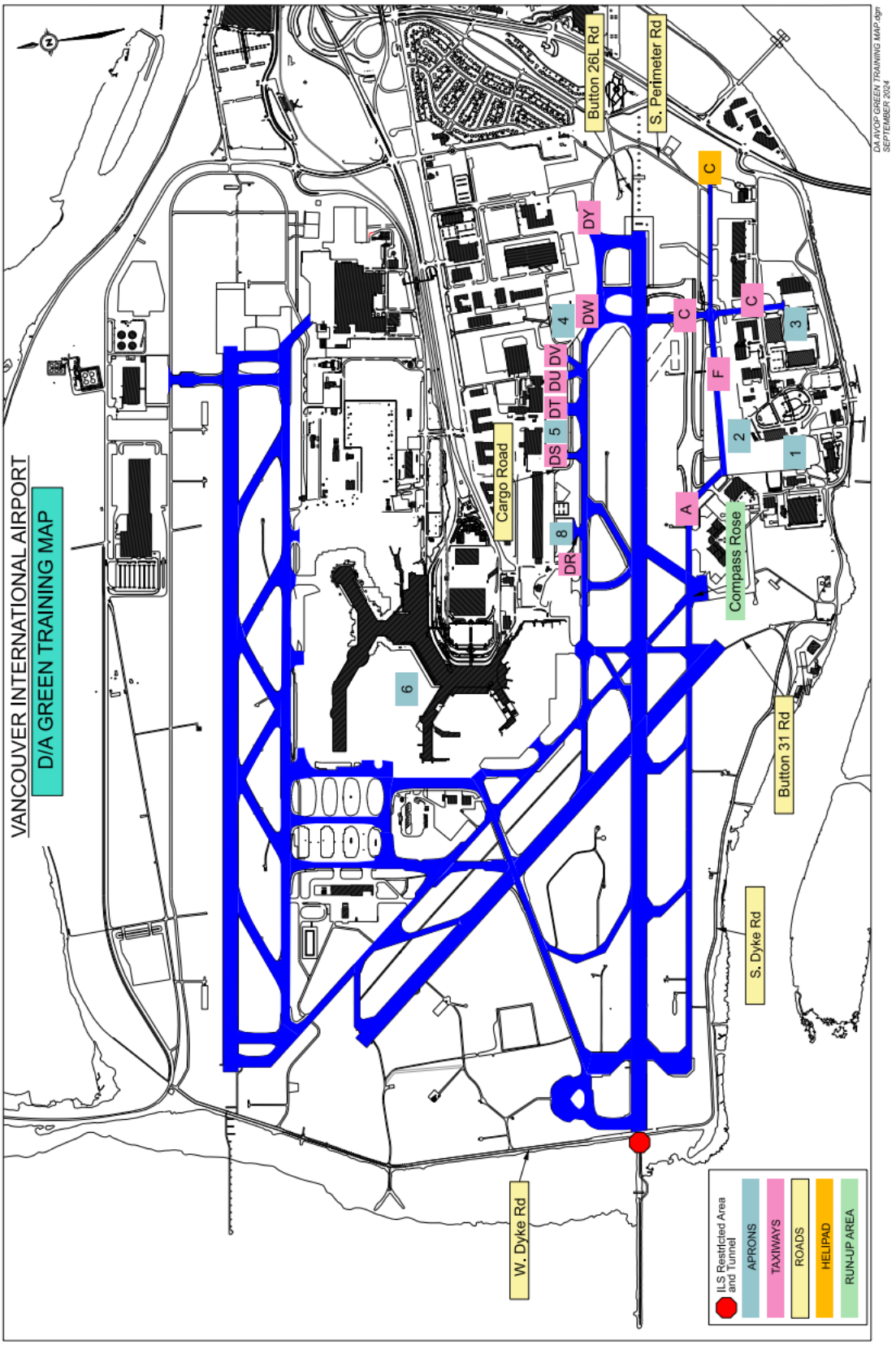
Appendix H: Training Maps

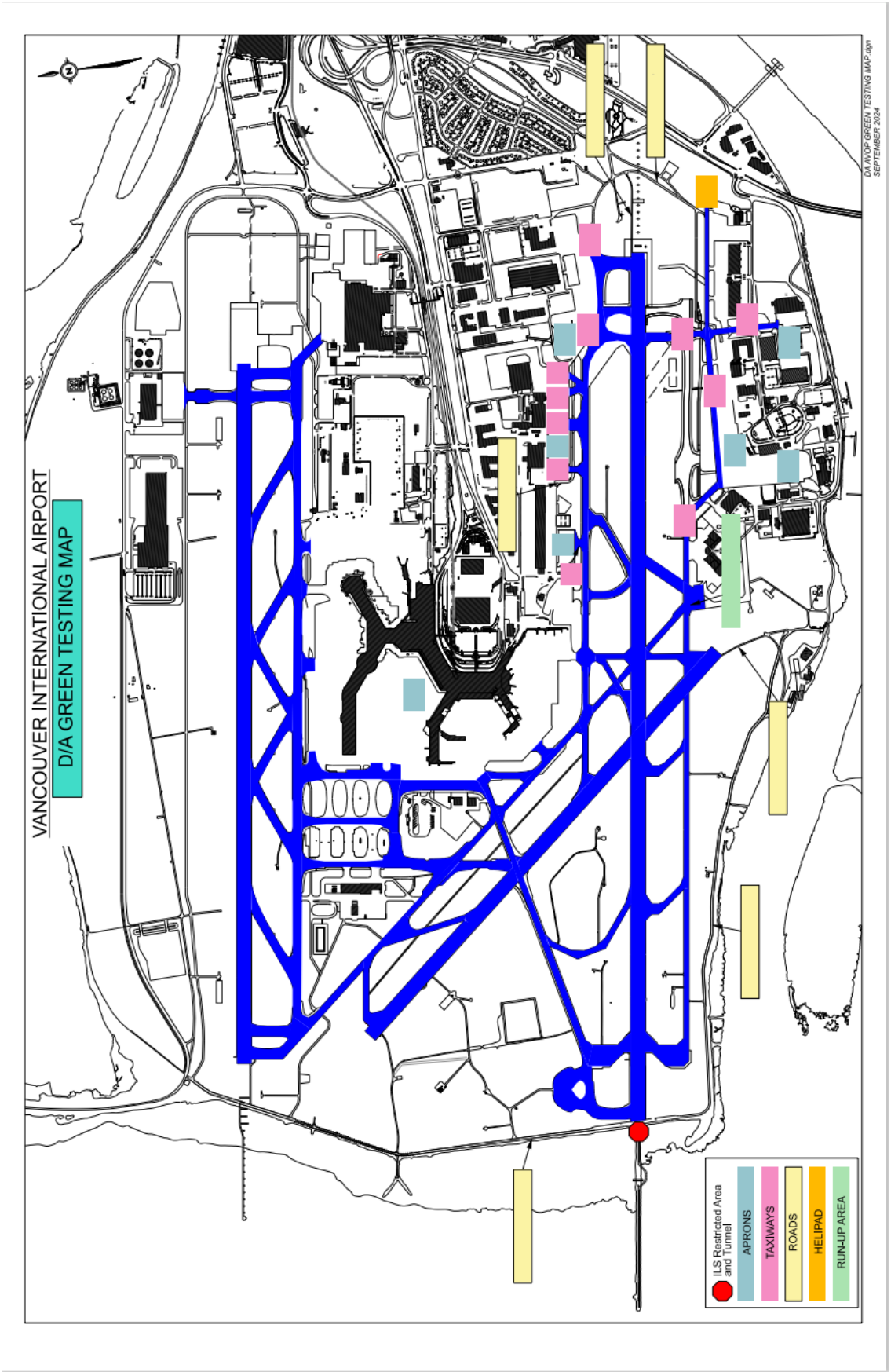



VANCOUVER INTERNATIONAL AIRPORT
D/A AVOP TESTING MAP
DA AVOP Testing.dgn
SEPTEMBER 2024
North End 27.15
South End 21.70
(Grnd)
ILS Restricted Area and Tunnel
APRONS
TAXIWAYS
ROADS
HELIPAD
RUN-UP AREA


VANCOUVER INTERNATIONAL AIRPORT
D AVOP TRAINING MAP
Rnwy 08L - 26R
Rnwy 08R-26L
Rnwy 13 - 31
Button 26R Road
Button 26L Rd
S. Perimeter Rd
N. Perimeter Rd
CDN Svc Road
Cargo Road
Compass Rose
Button 31 Rd
S. Dyke Rd
Button 08L Rd
N. Hotel Rd
Button 13 Rd
Lima Holding Bay Rd
W. Dyke Rd
Lima Holding Bay
ILS Restricted Area and Tunnel
APRONS
TAXIWAYS
ROADS
RUNWAY & HELIPAD
RUN-UP AREA

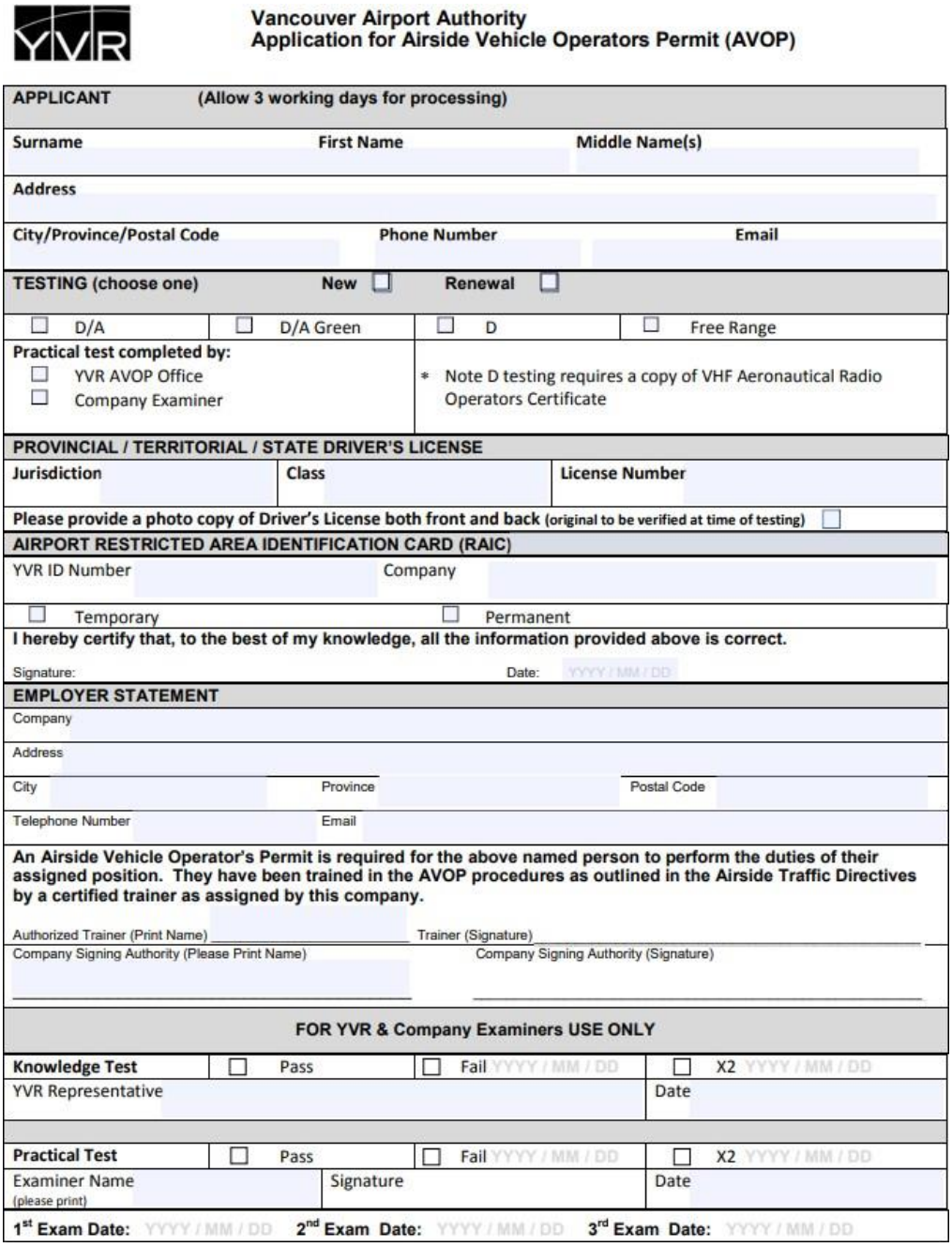

VANCOUVER INTERNATIONAL AIRPORT
D AVOP TESTING MAP
D AVOP Testing.dgn
SEPTEMBER 2024
North End 727.15
South End 721.70
(Grnd)
ILS Restricted Area and Tunnel
APRONS
TAXIWAYS
ROADS
RUNWAY & HELIPAD
RUN-UP AREA


VANCOUVER INTERNATIONAL AIRPORT
D/A GREEN TRAINING MAP
DA AVOP GREEN TRAINING MAP.dgn
SEPTEMBER 2024
Button 26L Rd
S. Perimeter Rd
Cargo Road
Compass Rose
Button 31 Rd
S. Dyke Rd
W. Dyke Rd
DY
DW
DV
DU
DT
DS
DR
A
C
F
1
2
3
4
5
6
8
ILS Restricted Area and Tunnel
APRONS
TAXIWAYS
ROADS
HELIPAD
RUN-UP AREA


VANCOUVER INTERNATIONAL AIRPORT
D/A GREEN TESTING MAP
DA AVOP GREEN TESTING MAP.dgn
SEPTEMBER 2024
ILS Restricted Area and Tunnel
APRONS
TAXIWAYS
ROADS
HELIPAD
RUN-UP AREA

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** ☐	**Renewal** ☐
☐ D/A	☐ D/A Green	☐ D ☐ Free Range
Practical test completed by: ☐ YVR AVOP Office ☐ 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) ☐		
AIRPORT RESTRICTED AREA IDENTIFICATION CARD (RAIC)		
YVR ID Number	Company	
☐ Temporary	☐ 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 ☐ Pass	☐ Fail YYYY / MM / DD	☐ X2 YYYY / MM / DD
YVR Representative		Date
Practical Test ☐ Pass	☐ Fail YYYY / MM / DD	☐ 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:**
Vehicle Information		
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 ☐		**No:** ☐
Approved Beacon: Yes: ☐ **No:** ☐	**Company Logo or Name: Yes:** ☐	**No:** ☐
Assigned Vehicle Identification		
Generic Identifier and Number:	Identifier	Number
Permanent: ☐	**Temporary:** ☐	**Expiry Date:** Year / Month / Day
Position of Numbers:	**Left & Right Sides:** ☐	**Back:** ☐
AVOP Office Information		
Issuing Officer: Name:	**Signature**	
Position:	**Date of Issue:**	Year / Mont h/ Day
Cancellation of Identifier		
Date of Cancellation:	Year / Month / Day	
Reason:		
Additional Comments:		

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

January 2025

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 pass the **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

AVOP applicants must study the current edition of the Airside Traffic Directives (ATDs) and acknowledge that operating in a safe manner is their responsibility.

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 Fueling Pit
- Pedestrian Crosswalks
- Runway Markings
- Tail/Wingtip Clearance Lines
- Taxiway Edge Markings
- Vehicle Corridor


26R M7


6N


DT

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
- What do Taxiway Locator Signs look like?

- What does a Runway Holding Position Marking look like?
- What do Taxiway Center 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 8 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?

NOTES:
- All the locations on the D/A Training Map must be memorized. See page 89.
- Answers to the questions in this study guide can be found within the *Airside Traffic Directives (ATDs).*