North Bay Jack Garland Airport

Airport Traffic Directives

DA AVOP Study Guide

February 2017

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AIRPORT TRAFFIC DIRECTIVES FOR THE OPERATION OF VEHICLES ON AIRPORT MOVEMENT AREAS

1.00 DEFINITIONS

Aerodrome

Any area of land, water (including the frozen surface thereof), or other supporting surface used or designated, prepared, equipped, or set apart for use either in whole or in part for the arrival and departure, movement, or servicing of aircraft, and including any buildings, installations, and equipment in connection therewith.

Aircraft

Any machine capable of deriving support in the atmosphere from the reactions of the air.

Airport

An aerodrome in respect of which a Canadian aviation document is in force.

Airport Manager

The duly authorized representative in charge of the airport.

Airport Traffic

All traffic on the maneuvering areas of an airport and all aircraft flying in the vicinity of an airport.

Airside

That area of an airport intended to be used for activities related to aircraft operations and to which public access is normally restricted.

Airside Vehicle Operator's Permit AVOP

Means a document issued by the airport manager certifying that the person named therein is authorized to operate vehicles in an airside area.

Apron

That part of an aerodrome, other than the maneuvering area, intended to accommodate the loading and unloading of passengers and cargo, the refueling, servicing, maintenance, and parking of aircraft, and any movement of aircraft, vehicles, and pedestrians to allow execution of those functions.

Apron Traffic

All aircraft, vehicles, equipment and pedestrians using the apron of an airport.

Blind Transmissions

A transmission from one station to another when two-way communication cannot be established and it is believed that the called station can hear transmissions, but is unable to transmit.

Cell Phone/PDA

Mobile phone and PDA is Short for **personal digital assistant**, **PDA** is a handheld **device** that combines computing, telephone/fax, Internet and networking features. i.e. Blackberry

Controlled Airport

An airport at which an air traffic control unit is provided.

Cross-Walk

Any portion of a road, an apron or any other area designated by a sign or surface marking as a pedestrian crossing.

Designated Vehicle Corridor

A road delineated by surface markings on an apron.

Designated Vehicle Crossing Point

A location on an apron, delineated by surface markings, where vehicles are to cross an aircraft taxi-line.

Equipment

Any motor vehicle or mobile device, either self-propelled or towed or of a specialized nature, used for runway and airfield maintenance or in the maintenance, repair and servicing of aircraft including test equipment and cargo and passenger handling equipment.

Fight Service Specialist

A Nav Canada employee who provides advisory information to aircraft and controls vehicles using, or about to use, the maneuvering areas of an airport where control service is not available.

Flight Service Station (FSS)

A Nav Canada operated facility from which aeronautical information and related aviation support services are provided to aircraft including airport and vehicle advisory services for designated uncontrolled airports.

Glide Path

That part of an instrument landing system that helps the pilot approach the runway on the correct descent angle to the designated touchdown zone.

Ground Control

The operating position in the control tower that provides:

(a) clearances and instructions for the movement of airport traffic, and

(b) information to all traffic within the airport perimeter as it is known and pertinent.

Groundside

The area that is on airport property that is not intended to be used for activities related to aircraft operations and to which the non-travelling public has access. (As defined in: *Traffic on the Land Side of Airports Regulations, 1992, SOR/2006-102*)

(i.e.) Groundside includes the Airport Terminal and Administration Buildings, general public roads, parking facility areas and approach light areas for runway 08/26 and 18/36.

Holding Bay

A defined area where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft.

Hold-Short

Instructions to hold at least 45 m (150 ft.) from the edge of a runway while awaiting permission to cross or proceed onto a runway.

Intersection

The point at which a road, runway or taxiway meets or crosses another road, runway or taxiway.

Light Signal from Airport Control Tower

A light used by the tower to control airport traffic when there is no radio communication.

Localizer

That part of the instrument landing system that helps the pilot remain lined up with the runway during his approach.

Maneuvering Area

That part of an aerodrome intended to be used for the taking off and landing of aircraft and the movement of aircraft associated with taking off and landing, excluding aprons.

Mobile Phone/PDA

Mobile phone(Cell & Satelite) and PDA is Short for **personal digital assistant**, **PDA** is a handheld **device** that combines computing, telephone/fax, Internet and networking features. i.e. Blackberry

Movement Area

That part of an aerodrome to be used for the surface movement of aircraft and includes the maneuvering areas and aprons.

Off the Runway

Indicates a vehicle is at least 45 m (150 ft.) to the side of the nearest edge of the runway in use, wherever practical.

Operational Stand

An area on an airport apron designated for the parking of aircraft for the purpose of loading and unloading passengers, and the provision of ground services.

Operator

The person responsible for the operation and safety of the vehicle and equipment; usually referred to as the driver.

Positive Vehicle Advisor Service PVAS

Instructions issued by Flight Service Specialists at designated uncontrolled airports to:

i. Regulate vehicles entering, leaving or moving along runways; and

ii. Coordinate the movement of vehicle traffic on the airport maneuvering area other than runways.

Restricted Area

An area of an airport designated by a sign as an area to which access by persons or vehicles requires the production of valid identification.

Taxiway

That part of an aerodrome used for maneuvering aircraft and airport equipment between the apron area and runway.

Threshold

The beginning of that portion of the runway usable for landing.

Uncontrolled Airport

An airport that is "non-controlled" to the extent that the airport does not have an operating air traffic control tower.

Restricted Radiotelephone Operator's Certificate

A document issued by the Department of Communications certifying that the holder may act as an operator on any aeronautical-land radio station fitted with radiotelephone equipment only, transmitting on fixed frequencies and not open to public correspondence.

Vehicle

An automobile, bicycle, over-snow vehicle, truck, bus, or any self-propelled vehicle or device in, on or by which a person or thing is or may be transported, carried, or conveyed on land, and includes a machine designed to derive support in the atmosphere from reactions against the earth's surface of air expelled from the machine, but does not include an aircraft.

Vehicle Advisory Service

Information provided by the flight service station for the safe movement of known vehicles and aircraft on maneuvering areas at locations where no control tower is in operation.

Vehicle Corridors

Parallel 150 mm (6 in.) wide, solid white lines spaced 7.5 m apart to provide guidance to vehicle and equipment operators.

Warning Devices

A siren and flashing red light.

2.00 OPERATION OF VEHICLES ON AIRPORT MOVEMENT AREAS

2.01 National Airport Traffic Directives

The directives contained in sections 1 through 8 of this manual apply at airports and are based on Acts, Regulations and procedures applied nationally for the safe and orderly operation of vehicles on airport movement areas.

2.02 Local Airport Traffic Directives

There may be considerable difference in the operating conditions at each airport because of the size and complexity of operation, climatic conditions, geographical location and other factors. Local Airport Traffic Directives (Section 10 of this manual), address these differences by establishing the procedures, in addition to those stated in sections 1 to 8, that apply to the operation of a vehicle at a specific airport.

2.03 Airside Vehicle Operator's Permit (AVOP)

No person shall operate a vehicle in the airside area of an airport unless:

(a) that person is in possession of an airside vehicle operator's permit, note: This certificate is not required if vehicle operation is restricted to the aprons and/or service roads only; or

(b) that person is escorted or accompanied by a person who is in possession of an airside vehicle operator's permit, or

(c) that person is in possession of a valid driver’s licence of proper class for the vehicle that is to be operated; and,

(d) that person is authorized by the Airport Manager or designate to operate a vehicle in that area, having provided:

a. Proof of valid insurance in the amount of $5,000,000 General liability and comprehensive with no aviation exclusion.

b. Proof of valid insurance in the amount of $2,000,000 General liability and comprehensive with no aviation exclusion for general aviation tenants restricted areas as noted in red on the AVOP diagram in appendix B.

An Airside Vehicle Operator's Permit is issued by the Airport Manager on the basis of applicant knowledge of both the national and local airport traffic directives for the airport named on the AVOP and may be based on a test.

Application for an AVOP must be made to the local Airport Manager by the applicant in writing and must include the address of the applicant and reasons for the application.

Other information pertinent to the issuance of an AVOP but not addressed in this manual, may also be required at some airports. This additional information will be

identified in the Local Airport Traffic Directives (Section 10) in force at the airports where the application is made. To avoid delays, you should also check with the Airport Manager's office to ensure that all clearances and other certificates or licenses that you may be required to hold are available at the time of application for an Airside Vehicle Operator's Permit.

Note:

Subject to being revoked or suspended, an Airside Vehicle Operator's Permit issued under the Airport Traffic Regulations is valid for the period stated on the permit. The “DX”, "D", or "DA" indication on a Restricted Area Pass is not an AVOP. It is only an indicator that the bearer of the pass also holds an AVOP with a specific qualification, which is a separate document.

On the expiry of an Airside Vehicle Operator's Permit, the permit holder shall forthwith return the permit to the Airport Manager.

2.04 Vehicle Operator Authorization

To obtain authorization to operate a vehicle on airport airside, an applicant will:

(a) apply to the Airport Manager or designate for airside vehicle operation training material; and subsequent issuance of an Airside Vehicle Operator’s Permit (AVOP), or Airport Manager written authorization to operate a vehicle airside;

(b) arrange with the Airport Manager or designate for AVOP testing and/or assessment.

(c) Be issued by the Airport Manager or designate an Airside Vehicle Operator’s Permit (AVOP), or written authorization to operate a vehicle airside;

(d) In the case of aprons and service roads only; operators, airlines or service provider companies are responsible to train, test and certify their operators and staff.

Once training is completed a letter certifying the employee is trained and qualified will be provided to the airport manager.

2.05 Vehicle Operation

With a D/A AVOP a vehicle will be operated:

(a) on the movement area (apron) only as authorized by the airport manager or designate.

3.00 RESPONSIBILITIES AND DUTIES

Each employer must ensure that their employees have received adequate training and are qualified to operate vehicles and equipment which they are required to use in the course of performing their duties on the airside. This includes ensuring that employees are in compliance with all Provincial/Territorial Driver's License requirements and restrictions.

Before operating a motor vehicle on the airside of an airport the vehicle operator must become familiar with the regulations and procedures in this manual and obtain authorization from the Airport Manager.

The vehicle operator must determine that his vehicle is operating satisfactorily and has the required safety equipment and markings (See Section 7.00, Recommended Safety Equipment for Vehicles). All operators shall notify their immediate supervisor of any equipment malfunction.

If you encounter any obstruction or potentially hazardous condition on any aircraft movement surface, report its nature and location to the Airport Manager and your supervisor in order that corrective action may be taken.

All personnel with Transport Canada or North Bay Airport restricted area passes shall wear these on outer clothing, ensuring they are always visible when in the restricted areas.

A person who is not in possession of a valid identification shall not enter or remain in any area of an airport that is designated by a sign as a restricted area unless authorized to do so by the Airport Manager.

Persons not displaying the passes should be considered unauthorized and should be reported immediately to the Airport Manager or representative. All designated gates must be kept closed and locked to prevent unauthorized personnel or vehicles assess to the airside.

4.00 VEHICLE OPERATING PROCEDURES

4.01 General

Aircraft always have the right-of-way. A vehicle operator, therefore, shall yield to any aircraft. Before entering an airport movement area, the vehicle operator shall always visually check and ensure that aircraft are not approaching or departing.

Following aircraft, vehicle operators shall yield right of way in the following order.

1. Emergency Vehicles responding to an emergency with warning devices operating;
2. Pedestrians, including passengers, crew, tenants, airport staff, etc.;
3. Vehicles and equipment engaged in snow removal, pavement ice control activities or other airfield activities;
4. Vehicles towing aircraft; and,
5. Other vehicles, such as tenant vehicles, air carrier vehicles (such as cargo vans and aircraft service equipment) and all vehicles being used during training or evaluation.

Every operator of a vehicle in an airside area shall yield the right-of-way to an emergency vehicle with warning devices operating.

Vehicles and pedestrians are permitted on the airport movement area only with authorization from the Airport Manager.

No person shall operate a vehicle in an airside area unless the vehicle displays a provincial registration plate or a registration plate or other means of identification issued or authorized by the Airport Manager.

No person shall operate a vehicle in an airside area while under a prohibition from operating the vehicle imposed by a court or judge.

No person shall operate a vehicle in an airside area in a manner that, having regard to all the circumstances, including the amount of traffic, is dangerous to aircraft, equipment, persons or vehicles.

Headlights must be turned on whenever a vehicle is operating in the maneuvering area.

All vehicles operating on airport movement areas shall have safety equipment and display markings as described in Section 7.00, Recommended Safety Equipment for Vehicles.

Every operator of a vehicle involved in an accident in the airside area of an airport shall report the accident forthwith to an enforcement officer or the airport manager.

Smoking is not permitted on runways, maneuvering areas apron areas or other prohibited areas. This prohibition applies to persons both inside and outside vehicles and equipment.

No person shall park an aircraft fuel servicing vehicle within 15 m (50 ft.) of any airport terminal building, aircraft cargo building, aircraft hangar or any other airport structure designed to house the public that has windows or doors in any exposed walls.

No person shall park a vehicle in any area designated by a sign as an area in which parking is prohibited.

No person shall, without the permission of the airport manager, park a vehicle in any area of an airport not intended for the use of vehicles.

No person shall park a vehicle in any area of an airport designated by a sign as a loading area.

Wherever possible and practical, vehicles and equipment should be backed into parking areas. This is particularly important around air terminal buildings, loading bridge areas, and other heavy traffic areas. Should backing into a parking area be impossible, the vehicle will be parked in a manner to allow the vehicle to drive forward when departing. Both are intended to provide maximum visibility for the vehicle operator when departing from a parking area.

No person shall:

(a) throw, deposit or knowingly leave on a road, apron or maneuvering area at an airport any glass, nails, tacks, scraps of metal, chemical substance or other material that may damage any aircraft or vehicle; or

(b) throw, deposit or knowingly leave any form of trash or garbage at an airport except in a container provided for that purpose.

Foreign material such as mud and gravel can seriously damage aircraft engines. Vehicle operators, therefore, should ensure that the surfaces of movement areas are kept clean by checking that wheels and tires are clean before they enter these areas. If foreign material is deposited on these surfaces, operators shall notify the airport manager, the field maintenance supervisor, the ground controller, or the flight service specialist and arrange for immediate removal. Any foreign material that poses a threat to an aircraft and its safe operations is referred to as Foreign Object Debris (FOD).

Vehicle operators shall remain a safe distance from areas affected by jet blast or prop wash of maneuvering aircraft, and not pass in front of or closely behind aircraft with engines running unless the wheels of the aircraft are chocked or the marshal waves permission.

All vehicles and equipment operating on airport maneuvering areas at controlled airports, and airports with a Flight Service Station including those serviced by a Remote Flight Service Station shall have a functioning two-way radio operated by a person with a valid restricted radio-telephone operator's certificate, or be escorted by a vehicle so equipped and manned. Each operator shall ensure that the two-way radio is working before the vehicle enters the airport maneuvering area. The radio

frequencies to be used and times of use are listed in the Local Airport Traffic Directives (Section 10).

Vehicles can seriously interfere with electronic equipment. No vehicle should proceed closer than 150 m (500 ft.) from an Instrument Landing System (ILS) transmitter building except with permission of the Control Tower or Flight Service Station. The location of sensitive air navigation equipment and related zones of restricted vehicle operation are indicated on the airport site plan of the Local Airport Traffic Directives (Section 10).

Vehicle operators shall use service and perimeter roads to reach field locations when these roads are available and time permits.

No person shall operate a vehicle on a road at an airport at a rate of speed that exceeds the speed limit posted for that road or, where no speed limit is posted, 50 km/h (30 mph.).

Operators and vehicles will remain clear of the scene of an accident and aircraft carrying distinguished visitors unless authorized by the airport manager.

4.02 Aprons and Other Uncontrolled Movement Areas

Every operator of a vehicle on an apron shall acknowledge and obey any instruction received from an apron management unit.

All vehicles and equipment on the apron must be operated by persons authorized by the Airport Manager or be escorted by a vehicle operated by a person so qualified. At airports where this authorization is a valid Airside Vehicle Operator's Permit (AVOP), the operator must carry the permit while on the apron.

An AVOP may limit the holder to operation of a vehicle on the airport apron. This limitation recognizes that the operator will not require access to airside areas other than the apron and that vehicles used in the normal performance of his/her duties will not normally be equipped with safety and radio equipment necessary for safe vehicle operation on airport maneuvering areas.

All self-propelled vehicles must be equipped with head lamps, tail lamps, parking lamps and, if licensed for off airport use, a license plate lamp. Vehicles with a cab must also be equipped with a rotating or flashing beacon lamp mounted on top of the vehicle. Vehicles without a cab must be capable of operating the parking and tail lamps so that they flash on and off in unison.

Whenever a self-propelled vehicle is moving from one place to another on the airport apron, those lamps equipped with a flasher (beacon lamp only for vehicles with a cab) must be in operation. The purpose of this procedure is to indicate to taxiing aircraft that the vehicle is being operated in the active apron area. These lamps should not, therefore, be left flashing when the vehicle is parked and left unattended. Improper use of flashing lamps is potentially distracting to taxiing aircraft and down-grades their value as a warning indicator that the vehicle is in motion.

Headlamps and non-flashing tail and parking lamps must be operated during hours of darkness and reduced visibility and may be left on as required while engaged in

service to parked aircraft. All vehicle lamps should be turned off when the vehicle is parked in approved parking locations.

All non-self-propelled equipment is required to carry a strip of yellow reflective material along the full length of the equipment and diagonal yellow and black panels on the front and rear lower corners.

The presence of unlit equipment on airport aprons can be a significant hazard to taxiing aircraft. For this reason, it is important that the reflective material on all equipment should be kept clean and in good condition at all times.

Section 7.00 of this manual illustrates the location and colour of apron vehicle safety markings required at North Bay Airport.

The vehicle operator must know the apron layout, including the location of operational stands, vehicle corridors, aircraft taxi lines, apron points of access (for both vehicles and aircraft), and adjacent facilities.

All vehicle operations shall follow the designated routing as defined by the Airport Manager in the local airport traffic directives (section 10.00 of this manual).

Vehicle operators must understand the pavement marking system.

(a) White lines pertain to vehicle movement and control.

i. Vehicle corridors used on busy aprons are marked by two solid white lines 7.5m (25 ft.) apart centered by a single broken line.

ii. Security lines are solid white lines 150 mm (6 in.) wide, used to denote the parking area for ground service vehicles and equipment.

(b) Yellow lines pertain to aircraft movement and control.

i. Aircraft movement guidelines, solid yellow lines 150 mm (6 in.) wide, are continuations of taxiway centerlines that serve as a center-of-aircraft guideline to aid aircraft traversing the apron. (These lines may not be required on some small aprons.)

ii. Aircraft lead-in lines are marked by two 150 mm (6 in.) solid yellow lines spaced 150 mm (6 in.) apart. The spacing and angle vary, depending on the "design aircraft" and local operating procedures.

Note: See section 4.07 for additional information.

At airports with designated vehicle corridors all vehicles (with the exception of vehicles noted below) must operate within these corridors when moving about the apron, e.g., to or from operational stands, between operational stands, across aircraft taxi lanes, etc.Only these vehicles may operate outside the corridors:

(a) vehicles such as maintenance, construction and snow removal vehicles, that require access to other areas of the apron when performing their duties; and

(b) emergency vehicles, with warning devices operating, when responding to an emergency.

All vehicles and equipment shall yield the right-of-way to airport maintenance equipment and airport emergency service vehicles performing their duties.

No person shall operate a vehicle within 15 m (50 ft.) of an aircraft being fuelled or defueled except for the purpose of servicing that aircraft or as required when operating within a designated vehicle corridor.

Vehicles already in a designated vehicle corridor have right-of-way over all other vehicles attempting to enter. Where thoroughfares intersect, the vehicle on the right has the right-of-way. You must use the right-hand lane of a designated vehicle corridor and should not pass other moving vehicles.

Vehicle corridors are not "guaranteed safe routes". Taxiing or parked aircraft may at times encroach on vehicle corridors, and you must avoid such aircraft.

If a vehicle lane is obscured for any reason, such as faded paint or snow cover, operators should conform to the designated roadway as nearly as possible, and exercise caution.

On aprons where vehicle corridors have not been designated, you should use extra care. Avoid, as much as possible, operating in aircraft taxi lanes and cross aircraft taxi lanes only at right angles.

Areas within operational stands provide free movement for vehicles performing their duties.

Every operator of a vehicle entering or on an apron shall yield the right-of-way to an aircraft that is approaching and is close enough to constitute an immediate hazard and refrain from proceeding until the operator can do so in safety.

No operator of a vehicle entering or on an apron shall approach or cross an aircraft movement guideline except:

(a) at a right angle to the aircraft movement guideline; or

(b) where a designated vehicle crossing point exists, at that crossing point.

Unless otherwise authorized by the Airport Manager, no person shall drive vehicles and equipment on an apron at a rate of speed in excess of 25 km/h (15 mph.) Check local airport traffic directives for changes. Operators shall reduce speed and maintain a careful lookout when near aircraft and corners of buildings or other installations.

Equipment and vehicles shall not be parked or left unattended on vehicular routes or aircraft movement areas without the permission of the Airport Manager. Vehicles must be parked only in approved areas when not in immediate use.

Every person operating a vehicle on an apron shall yield the right-of-way to pedestrians being escorted between an aircraft and the terminal building.

Every operator of a vehicle shall yield the right-of-way to a pedestrian who is within a pedestrian cross-walk.

No operator of a vehicle shall overtake or pass another vehicle at or within 30 m (100ft) of a pedestrian cross-walk.

No pedestrian on an apron shall impede, interfere with or obstruct in any way the free movement of apron traffic except in the course employment relating to the control of that traffic.

4.03 to 4.06 Pertains to AVOP DX Permit Only

4.07 Airside Pavement Markings, Lights and Signs

General

Both vehicle and aircraft movement on the ground is guided by pavement markings, lights and signs on the airside which are different from those used on roads and highways.

This section describes and illustrates the markings, lights and signs most commonly used at airports and which an airside vehicle operator is required to know. Other traffic control devices, in addition to the following ones, may be used at some airports and will be explained as required, in the Local Directives (Section 10) which form a part of this manual.

4.07a Pavement Markings

Aircraft Lead-in Lines

Two parallel yellow lines between an aircraft guide line and a gate or parking position. The aircraft nose wheel is centered on these lines to guide the aircraft into the parking position without hitting other parked aircraft or obstructions.

Aircraft Lead-in Lines

Two parallel yellow lines between an aircraft guide line and a gate or parking position. The aircraft nose wheel is centered on these lines to guide the aircraft into the parking position without hitting other parked aircraft or obstructions. Also referred to as “T-Lines”.

4.07b Helicopter Areas

The paved surface of areas designated for the arrival and departure of helicopters is designated by a large white 'H' within a white square or circle.

Helicopter parking (or touch down) locations on an apron are marked by two yellow circles with yellow capital “H” inside the smaller circle.

The area where a helicopter may arrive or depart (but not land) is marked with a yellow triangle.

Paved taxiways between the helicopter arrival/departure and parking positions are marked with a yellow line that may extend onto the apron.

All vehicle operators must remain outside the perimeter marking of helicopter arrival/departure areas and parking locations except when engage in service to these aircraft. While taxiing, all aircraft have the right of way.

4.07c Lights

Aerodrome Beacon

The aerodrome beacon is a large rotating white light mounted at a location such as on top of the control tower. It is provided for visual identification of the airport by aircraft but is also a good reference point for vehicles on the airfield. The location of the aerodrome beacon will be illustrated on the airport site plan (Section 10).

Edge Lighting for Aircraft Movement Surfaces

General

Different coloured lights are used to indicate the edge of various aircraft movement surfaces.

White lights are used along the edge of runways.

Blue lights are used along the edge of aprons and taxiways. Alternatively a blue 'pylon/marker' can also be used on aprons.

Amber lights are used at the intersection of aprons and taxiways. Also known as '<u>double ambers</u>', these lights identify the maximum allowable distance a vehicle operator can proceed up to before they must have authorization from FSS to proceed from an apron to a taxiway.

Two Sided Red and Green lights are located at the runway threshold and are used to identify the end of a runway, for aircraft landing, with the green half pointing toward the approach of the runway.

Two Sided White and Yellow lights are used at the runway end to indicate the approaching end of the runway, for aircraft taking off, with the white half pointing toward the approach of a runway.

Every vehicle operator must know the meaning of these lights to avoid entering areas where they are not permitted to be and as a guide to vehicle movement when within the maneuvering areas (runways and taxiways) of the airport.

4.07d Signs

Airside Service Roads:

Signs used on aprons and airside service roads are generally the same signs as those used on provincial roads throughout Canada. All vehicle operators on airside service roads are required to comply with these signs which are enforceable under the Airport Traffic Regulations. .

Maneuvering Area Signs:

Signs used on the maneuvering area (runways and taxiways) are designed and intended for the use and guidance of aircraft. They are also of value to vehicle operators to identify areas they should not enter or as guides to vehicle operation while in the maneuvering area.

These signs are normally mounted on either the left, right or both sides of a runway or taxiway according to requirements and are located 15 m to 20 m (50' to 65') from the edge of the maneuvering surface.

Above Sign Display Diagram from TP312 5th Edition.

"**Mandatory Instruction Signs**" with white letters/numbers on a red background include:

"Runway Designator" These signs are red, indicating the mandatory instruction to "hold short". The sign also indicates the runway designation of the upcoming runway.

Above: An example of a standalone 'Mandatory' Sign.

"Road Holding Position" These signs are red, indicating the mandatory instruction to "hold short". The sign also indicates the contact information to obtain clearance to proceed onto the runway designation of the upcoming

IMPORTANT NOTE:
While 'Road Holding Position Signs' are used at the intersection of service road and a runway, these signs are also placed at specific traffic flow locations. In this case the ATC instructions will be replaced with local traffic information, such as, but not limited to, "Watch for Helicopter Traffic". These should be treated as any other "STOP Sign" on a road.

"Information Signs" are yellow with black letters/numbers.

Information Signs normally have an arrow indicating the direction of travel to exits, aprons, terminal buildings, or other facilities named on the sign. These signs can either be standalone, or grouped with other signs, including Location Signs and Mandatory Signs.

"Location Signs" are black with yellow letters/numbers.

Location Signs, like street signs, identify the names of the maneuvering area/surface you are currently on. These signs can either be mounted independently, as a standalone sign, however they are commonly found with Mandatory Signs at the intersection of a Taxiway and a Runway.

Above: An example of a standalone 'Location' Sign.

Above: An example of a 'Location' Sign in conjunction with a 'Mandatory' Sign.

Remember that taxiways are referred to when speaking by using the phonetic alphabet so that taxiway "A" is spoken of as "taxiway Alpha"; taxiway "B" is "taxiway Bravo", etc. and that a vehicle may not enter a taxiway without prior approval of ground control or Flight Services or, in their absence, the approval of the Airport Manager.

5.00 to 6.00 Pertains to AVOP DX Only

7.00 RECOMMENDED SAFETY EQUIPMENT FOR VEHICLES

7.01 Safety Equipment for Maneuvering Areas

All vehicles that will be operated or driven on the aircraft maneuvering areas of airports must be equipped with a rotating or LED warning light that must be turned on while a vehicle is on these areas. If equipped with headlights, these must also be turned on while in the maneuvering area.

The rotating or LED warning lights shall be mounted on the vehicle in a location that will permit the beam to be seen by aircraft or surface traffic from any position within 360°. The enclosing globe of the warning light shall be amber for all vehicles except airport emergency service vehicles, which are to be equipped with a red warning light.

Additional Recommended Safety Equipment

Vehicles operated alone (not in company of another vehicle or vehicles) in the maneuvering area or other remote locations of the airfield for an extended period of time are to carry a supply of red, road safety flares sufficient to provide a continuous signal for a minimum of one hour. Although not required to be in the vehicle at all times, the carriage of these flares is strongly recommended in winter when both motor and battery/radio failure are most likely to occur. The vehicle owner is responsible to ensure provision of an adequate supply of flares based on operating requirements.

The vehicle operator and his/her supervisor are responsible to ensure that flares are in the vehicle when required based on prevailing operating conditions and work assignment.

7.02 Safety Marking and Equipment Requirements for Apron Areas

All vehicles and equipment operating on aprons shall be equipped with standard safety markings prescribed for apron service vehicles. These requirements are obtainable from the office of the Airport Manager.

Exceptions:

Occasional use on the apron area of vehicles or equipment not equipped with standard safety markings may be permitted while under escort of a vehicle so equipped.

Aircraft fuelling vehicles which have an overall height in excess of 3.5 m are permitted to mount 360° beacon lamps on the vehicle cab provided that tail signal lamps are operated in conjunction with the 360° beacon lamp to provide adequate indication to the rear of the vehicle.

Police, emergency services and other vehicles equipped with safety marking prescribed for operation on airport maneuvering areas are considered to equal or exceed these standards.

7.03 Safety Marking Requirements for Apron Service Vehicles

Note: Also see TP312 5th Edition Section 6, Subsection 6.3.2 Mobile Objects for specific information relating to the marking of mobile equipment.

8.00 ACTS AND REGULATIONS

The following acts and regulations were used to support the information in this manual:

(a) Department of Transport Act;

(b) Aeronautics Act;

(c) Government Property Traffic Act;

(d) Radio Act;

(e) Canadian Aviation Regulations;

(f) TP 312 – Aerodrome Standards & Recommended Practices 5th Edition;

(g) General Radio Regulations.

Related manuals on which this directive is based include:

- ATC-MANOPS
- FSS-MANOPS
- CARS-MANOPS
- AOM (Airport Operations Manual)

9.00 AVOP SELF-TEST

Your written AVOP test will be based on a number of multiple choice questions taken from those contained in the following pages. (Questions related to the Local Airport Traffic Directives are contained in Section 10.00 and will also form part of your AVOP test).

The questions in Section 9.01 are grouped in the same order as the information in sections 1 to 8 of this manual for easy cross reference.

The correct answer for each question is provided in section 9.02 to check your own score and identify those parts of the manual which may need further study.

9.01 AVOP National Test Questions

Section 1.00 Definitions

1) Which of the following most accurately describes that part of an aerodrome intended to be used for the taking of and landing of aircraft and the movement of aircraft associated with taking off and landings, excluding aprons:

    1. Restricted area
    2. Movement area
    3. Airport area
    4. Maneuvering area

2) Which of the following most accurately describes the beginning of that portion of the runway usable for landing?

    1. Taxiway
    2. Apron
    3. Threshold
    4. Button

3) An airport at which an air traffic control unit is provided is called a:

    1. Aerodrome
    2. Controlled airport.
    3. Flight Service Station
    4. Uncontrolled airport

4) A road delineated by surface markings on an apron is called a:

    1. Designated Vehicle Corridor
    2. Aircraft Taxi Line
    3. Airport Service Road
    4. Aircraft Lead-in Line

Section 2.02 Local Airport Traffic Directives

5) Local Airport Traffic Directives:

1. Apply at all Transport Canada airports.
2. Apply only to commercial vehicles.
3. Apply only at the airport where issued.
4. Apply only to government vehicles.

Section 2.03 Airside Vehicle Operator's Permit (AVOP)

6) Who has authority for the issuing, suspension or cancellation of permission to operate a vehicle on the airside of North Bay Airport?

1. The Minister of Transport.
2. The Airport Manager.
3. The Officer in Charge of Security.
4. A Police Constable.

Section 3.00 Responsibilities and Duties

7) The person responsible for determining that his or her vehicle is operating satisfactorily and has the required safety equipment and markings is:

1. The owner of the vehicle.
2. The operator of the vehicle.
3. The police.
4. The Airport Manager.

8) If you encounter a condition on an aircraft movement surface that is likely to cause damage to an aircraft, you should report it to:

1. The airport mechanic or foreman.
2. Your immediate supervisor.
3. All aircraft operators.
4. The local security office.

9) Who is responsible for reporting any vehicle malfunction or dangerous condition to the supervisor?

1. Any other driver.
2. The base supervisor.
3. The mechanic.
4. The vehicle operator.

10) Who is required to wear a Transport Canada or North Bay Airport Restricted Area Pass while on the airside of the airport?

1. All persons on the airside of an airport.
2. Every person who is not aircrew or a ticketed passenger.
3. Aircrew and passengers.
4. Security staff only.

11) How is a restricted area pass carried?

1. On the outside of the clothing.
2. In your wallet.
3. In the vehicle glove compartment.
4. Not required to be carried.

12) Who is responsible for reporting a person found on the airside of an airport who is not wearing a restricted area pass?

1. The Security Officer.
2. The company chief representative.
3. Everyone who has a restricted area pass.
4. Any passenger.

13) Who is responsible for ensuring that all designated gates to the airside of the airport are closed and locked?

1. Every person who has authority to use a gate giving airside access.
2. Airport Security staff.
3. Airport Management staff.
4. Airline employees only.

14) There are many types of vehicles and equipment used on the airside of an airport. Who is responsible for ensuring that a vehicle operator knows how to operate the equipment he or she uses?

1. The licensing authority.
2. The vehicle operator.
3. The vehicle operator's employer.
4. The security office.

Section 4.01 Vehicle Operating Procedures - General

15) All vehicles operated on the airport maneuvering areas, except those under escort, must be equipped with:

1. Headlamps and tail lamps and reflective tape on both sides.
2. A flashing beacon and radio on company frequency.
3. An approved rotating beacon lamp and radiotelephone on the appropriate radio frequency.
4. A reflective yellow material on the sides and striped black and yellow patches on the lower left and right corners of the vehicle.

16) All vehicles with a cab while operating without escort on the airport aprons must be equipped with which of the following lights or markings?

1. An amber flashing or rotating beacon, headlamps, parking and tail lamps.
2. Headlamps, tail lamps and reflective tape on both sides.
3. A two-way radio on the citizens band or company frequency.
4. None of the above.

17) All non self-propelled equipment used on the airport aprons must be equipped with safety marking. Which of the following most accurately describes that marking?

1. Yellow reflective stripe along the sides, and black and yellow patches at the front and rear lower corners.
2. Headlamps, tail lamps and a horn.
3. Both 1 and 2 above.
4. Any reflective material that can be seen from 300 m at night.

18) Which of the following traffic has first priority, (right of way) over all other traffic?

1. Maintenance vehicles in the performance of their duties.
2. Emergency vehicles.
3. Aircraft.
4. The vehicle approaching from the right.

19) Which of the following examples most accurately describes the precaution which must be taken before operating a vehicle near radio navigational facilities?

1. Get permission from the Airport Manager first.
2. Drive a small vehicle so that the signal will be affected as little as possible.
3. Get approval from ground control or Flight Services.
4. Stay away from this equipment at all times.

20) Smoking on apron areas is:

1. Permitted.
2. Permitted in vehicles only.
3. Prohibited both inside and outside vehicles.
4. Permitted if no aircraft are within 100 m of the smoker.

21) It is permissible to operate a vehicle in front of or directly behind an aircraft with engines running when:

1. Not at any time.
2. The red, anti-collision beacon of the aircraft is turned off.
3. The marshal waves permission and the aircraft wheels are blocked (chocked).
4. You have waited three minutes and the pilot has not indicated any intention to move the aircraft.

22) When vehicles are parked in an approved parking space in the vicinity of Terminal Buildings or adjacent to heavy traffic areas, they should be:

1. Left with beacon or flashing signal lamps in operation.
2. Backed into the parking area.
3. Driven in front first.
4. Left with engine running.

23) Whenever an aircraft carrying distinguished visitors is at an airport, unauthorized personnel and vehicles are required to:

1. Remain clear of the aircraft unless otherwise authorized by the Airport Manager.
2. Drive slowly past the area but do not take pictures.
3. Conduct normal vehicle movements but do not stare.
4. There is no restriction on vehicle movement.

24) Vehicle operators must ensure that mud and gravel are not deposited on aircraft movement surfaces because:'

1. This material can cause damage to taxiing aircraft and engines.
2. Erosion could occur if too much dirt is removed from the runway edge.
3. The material can cause damage to aircraft in the air.
4. Dirty vehicles are not permitted on airport property.

25) If a vehicle operator notices foreign materials (mud - gravel - solid objects) on an aircraft movement surface, the vehicle operator is required to:

1. Report the nature and location of the material to the police.
2. Stop and remove the material.
3. Report the nature and location of the material to your supervisor.
4. No special requirements exist for vehicle operators.

26) If an aircraft were to crash on the airport, unauthorized vehicle operators are required to:

1. Wait until Crash Firefighting and Rescue is over before entering the area.
2. Proceed immediately to the scene and render assistance.
3. Stay away from the area unless authorized by your supervisor.
4. Remain clear of the area unless otherwise authorized by the Airport Manager.

Section 4.02 Operation of Vehicles on Aprons

27) The colour of pavement markings which outline vehicle corridors and security lines is:

1. Green except in grassed areas.
2. Yellow.
3. White.
4. Red at intersections, white in other areas.

28) The colour of pavement markings related to aircraft movement guidelines and aircraft lead-in lines is:

1. Green except in grassed areas.
2. Yellow.
3. White.
4. Different for each class and type of aircraft.

29) Select the description below which most accurately describes how vehicle corridors are indicated on paved aprons:

1. Two solid white lines 7.5 m apart, centered by a single broken line.
2. Two broken yellow lines divided by a solid white line.
3. Two solid yellow lines 7.5 m apart, centered by a single broken line.
4. Two solid white lines 7.5 m apart, centered by a broken green line.

30) The purpose of an aircraft movement guideline is:

1. To indicate where aircraft movement is permitted.
2. To show where aircraft movement is not permitted.
3. To delineate lanes on a taxiway for vehicle movement.
4. To serve as a center-of-aircraft guideline to aid aircraft travelling on taxiways and aprons.

31) Aircraft lead-in lines are provided to:

1. Lead the aircraft onto the runway when landing.
2. Assist in the docking of an aircraft at a gate.
3. Indicate where aircraft are restricted on an apron.
4. Indicate the limits of vehicle corridors.

32) What vehicles must stay within vehicle corridors when moving about the apron to or from operational stands, between operational stands, across aircraft taxi lines, etc.?

1. Emergency vehicles and vehicles towing aircraft.
2. All vehicles except emergency and airport maintenance vehicles in the performance of their duties.
3. Delivery vehicles except those under escort.
4. Airline service vehicles only.

33) What vehicles are permitted to operate outside the vehicle corridors on aprons?

1. Emergency vehicles and airport maintenance vehicles while operated in the performance of their duties.
2. Anyone who wishes to pass at speed.
3. No one except the Airport Manager.
4. Both two and three above.

34) A vehicle operating in the right hand lane of a vehicle corridor has right of way over:

1. Snow removal equipment engaged in snow removal.
2. Other vehicles entering the corridor.
3. Small aircraft only.
4. All ether vehicle traffic.

35) When operating a vehicle in a vehicle corridor on an apron, the operator may:

1. Use the left lane to pass slower vehicles.
2. Leave the vehicle corridor to pass slower vehicles.
3. Drive in the left lane rather than tailgate another vehicle.
4. None of the above.

36) Where vehicle corridors intersect, the vehicle which has the right of way is:

1. The vehicle on the left.
2. The vehicle entering the corridor from the right.
3. The vehicle travelling at the greater speed.
4. The vehicle on the right.

37) You are operating a vehicle in a vehicle corridor which passes behind an aircraft with engines running, you are required to:

1. Stop well clear of the aircraft and wait until the aircraft has been backed out or the marshal clears you to pass.
2. Pass behind the aircraft as quickly as possible.
3. Leave the vehicle corridor and go around the aircraft at a minimum distance of 15 m.
4. Turn your vehicle around and return to your starting point on the apron.

38) Vehicle Corridors are:

1. Required to be used at all times regardless of circumstances.
2. Not guaranteed safe routes and caution must always be exercised to avoid parked and moving aircraft.
3. Guaranteed safe routes for vehicles under all circumstances.
4. Provided to ensure the safe and orderly movement of aircraft.

39) Areas within Operational Stands:

1. Are provided for the servicing and maintenance of vehicles.
2. Provided for free movement of vehicles performing their duties related to aircraft.
3. Are defined as areas where vehicle flashing lamps or beacon lamps must always be turned on.
4. Are provided for the refueling of aircraft only.

40) Vehicle operators must always exercise caution:

1. When vehicle corridor markings are obscured due to faded paint, snow cover or any other reason.
2. When entering and leaving the active apron area and entering and leaving vehicle corridors.
3. When operating in front of or behind aircraft with engines running.
4. When any of the conditions indicated above are encountered.

41) Where vehicle roads or corridors intersect, the vehicle which has the right of way is:

1. The largest vehicle.
2. The vehicle on the left.
3. The vehicle on the right.
4. The vehicle with a cab and flashing or rotating beacon.

42) When not in use, Apron Service Vehicles may be parked:

1. On the apron where space is available.
2. In any apron area not used for the movement of aircraft.
3. In parking areas designated by the Airport Manager only.
4. As in one and two above if overflow parking is only provided on the groundside of the airport and assigned space on the apron is full.

43) All non-self-propelled equipment used on an apron is required to be marked with reflective material. Which of the following most accurately describes how this equipment must be marked?

1. A yellow stripe on the front and back - the full width of the vehicle.
2. Black and yellow patches on the sides and a yellow stripe across the end.
3. One and two (above), but not four (below).
4. A solid yellow stripe on the sides and black and yellow patches at the front and rear lower corners.

Section 4.07 Airside Pavement Markings, Lights and Signs

44) Maneuvering surfaces at an airport that are designated by a letter are:

1. Aprons.
2. Runways.
3. Service Roads.
4. Taxiways.

45) Runway edge lights are what colour:

1. Red.
2. White.
3. Blue.
4. Amber (Yellow)

46) Apron and taxiway edge lights are what colour:

1. Red.
2. White.
3. Amber (Yellow).
4. Blue.

47) Lights used to indicate the intersection of a taxiway and an apron are what colour:

1. Amber (Yellow).
2. White.
3. Red.
4. Green.

48) The arrival and departure point on an airport for use by helicopters is identified by which of the following pavement markings:

1. A large, white, 'H' within a white circle or square or a yellow triangle.
2. A silhouette of a helicopter within a white circle.
3. A Yellow 'H' within two concentric, yellow circles.
4. A large, white 'H' within a white cross.

49) The pavement marking which indicates an apron location reserved for the parking of helicopters is:

1. A yellow triangle.
2. A white 'H' within a yellow triangle.
3. A yellow 'H' within two, concentric, yellow circles.
4. None of the above.

9.02 AVOP National Test Answers

Listed below are the correct answers to questions in section 9.01. They are grouped to correspond with the sections of the manual on which they are based.

1.00	1	4
	2	3
	3	2
	4	1
2.02	5	3
2.03	6	2
3.03	7	2
	8	2
	9	4
	10	2
	11	1
	12	3
	13	1
	14	3
	15	3
4.01	16	1
	17	1
	18	3
	19	3
	20	3
	21	3
	22	2
	23	1
	24	1
	25	3
	26	4
	27	3
4.02	28	2
	29	1
	30	4
	31	2
	32	2
	33	1
	34	2
	35	4
	36	4
	37	1
	38	2
	39	2
	40	4
	41	3
	42	3
	43	4
	44	4
	45	2
	46	4
	47	1
	48	1
	49	3

10.00 Local Airport Traffic Directives

10.01a DX Pass Requirements

a. All applicants must complete and submit an application for Restricted Area Access Pass to the Security Supervisor.

b. Submit and supply consent to disclosure of personal information from the North Bay Police or the Ontario Provincial Police.

c. Photos will be taken at North Bay Airport Security Office.

d. Applicants must study and pass an aeronautics radio operators test to acquire a radio operator's license.

e. Bring the completed AVOP application, driver's license and radio operator certificate to evaluation, in order to create a copy for your record.

f. Must hold a valid driver's license for the class of vehicle being operated.

g. Study manuals on air field procedures are supplied to the applicant.

h. All applicants must pass a theory and two stage practical (afterhours procedures and ride along) airside vehicle operator's permit test evaluation.

10.01b D Pass Requirements

a. Restricted to TAXIWAYS CROSSING 18/36 and APRONS ONLY

b. All applicants must complete and submit an application for Restricted Area Access Pass to the Security Supervisor.

c. Submit and supply consent to disclosure of personal information from the North Bay Police or the Ontario Provincial Police.

d. Photos will be taken at North Bay Airport Security Office.

e. Applicants must study and pass an aeronautics radio operators test to acquire a radio operator's license.

f. Bring the completed AVOP application, driver's license and radio operator certificate to evaluation, in order to create a copy for your record.

g. Must hold a valid driver's license for the class of vehicle being operated.

h. Study manuals on air field procedures are supplied to the applicant.

i. All applicants must pass a theory and two stage practical (afterhours procedures and ride along) airside vehicle operator's permit test evaluation.

10.01c DA Pass Requirements

j. All applicants must complete and submit an application for Restricted Area Access Pass to the Security Supervisor.

k. Submit and supply consent to disclosure of personal information from the North Bay Police or the Ontario Provincial Police.

l. Photos will be taken at North Bay Airport Security Office.

m. Bring the completed AVOP application and driver's license to evaluation in order to create a copy for your record.

n. Must hold a valid driver's license for the class of vehicle being operated.

o. Study manuals on air field procedures are supplied to the applicant.

p. All applicants must pass a theory and practical (ride along) airside vehicle operator's permit test evaluation.

10.02 Training for Airside Vehicle Operators

The operator of a vehicle on the movement area will be appropriately trained for the tasks to be performed and will comply with the instructions issued by:

(a) the air traffic services unit, airport operator or designate when on the manoeuvring area; and

(b) the appropriate designated authority, when on the apron.

All training of vehicle operators will be conducted by the airport manager or designate, prior to allowing an individual to operate any vehicle and/or mobile equipment on the airport maneuvering areas. A copy of individual training and vehicle operation authorization records, i.e., for both airside vehicle operator's permit (AVOP) and/or airport manager written authorization, will be retained on the employee's and/or contractors' file at the airport.

Aprons and service roads drivers only training will be designated to the respective airline, service provider or tenant operator.

Airside vehicle operator training is based on the reference North Bay Airport Traffic Directives for the Operation of Vehicles on Airport Movement Areas.

10.03 Arrange for an New AVOP Test

Obtain AVOP and Restricted Area Pass applications from Airport Security in the main airport terminal building. When the applicant is prepared to attempt the AVOP test arrangements can be made by contacting:

Airport Security/Operations and Service Development Manager
Ph. 705-474-3026 ext. 5305.

NOTE: Any AVOP tests scheduled between November 1st and April 1st may be cancelled and rescheduled with minimal notice, as weather and operational requirements permit during the winter.

10.04 Evaluation of Airside Vehicle Operators

Once the operator has successfully completed the necessary training, the operator will be required to schedule an evaluation with the airport manager or designate.

The certification evaluation will comprise of the following.

DX AVOP	**D AVOP**	**DA AVOP**
Written Test	Written Test	Written Test
After Hours Verbal Test	After Hours Verbal Test	DA AVOP Practical Test
DA AVOP Practical Test	DA AVOP Practical Test	
DX AVOP Practical Test	DX AVOP Practical Test	

Alternatively, tenants authorized to issue AVOPs, as per Section 1.2 Vehicle Operator Authorization, may evaluate and issue AVOPs as required for their specific operations and within their designated areas as outlined within their approved lease.

Once training is completed a letter certifying the employee is trained and qualified will be provided to the airport manager.

10.05 AVOP Knowledge Confirmation

In order to maintain a high degree of airside safety when operating vehicles, and to ensure that all AVOP holders remain current with both the theoretical and the practical components of the entire Airside Traffic Directives, every AVOP holder is required to confirm their knowledge using the methods below.

1. Provide semi-annually, in writing, a statement confirming they have used their AVOP a minimum of 6 times within the 6 month period from Jan 1, or July 2 which ever is closer, until expiry.
   (1st reporting period is 1 Jan – 1 July. | 2nd reporting period is 2 July – 31 Dec)

   All completed knowledge confirmation forms can be submitted to:

   Mail: 50 Terminal St., Suite #1, North Bay, ON, P1B 8G2
   Email: operations@northbayairport.com
   Fax: 705-474-3020

2. Should the AVOP holder not be able to provide written proof that they have used their AVOP a minimum of 6 times during the specific reporting periods listed above, a check ride must be scheduled within 90 days with an airport evaluator, as listed below, to validate their knowledge of all current traffic directives.

   Airport Security/Operations and Service Development Manager
   Phone: 705-474-3026 ext. 5305

3. Should an AVOP holder be unable to confirm their knowledge by one of the above methods their AVOP will be revoked immediately. Once an AVOP is revoked the individual will need to reapply for an AVOP, and if approved by the Airport Manager or designate will be required to fully certify again.

AVOP Knowledge Confirmation Form

For All Airport Staff, Tenants, Clients, and Other Users.

1. AVOP Holder Details

Please indicate the individuals who have used their AVOP within the past 6 months.

First Name:	Last Name:	AVOP Issue Date:	AVOP Expiry Date:	Date of Last AVOP Use:	AVOP #
					NBA -
					NBA -
					NBA -
					NBA -
					NBA -
					NBA -
					NBA -
					NBA -
					NBA -
					NBA -

2. Authorizing Information

Confirmation Statement: I confirm that the above individuals have used their AVOP at the North Bay Jack Garland Airport at least every six (6) months from date of issue, or since April 2016 - whichever is less, most recently on the date listed above. An update will be provided again within the subsequent six (6) months from the date listed above.

Supervisor / Manager / Designate Full Name and Signature:	Date:

Please forward the completed form via e-mail or fax to: **operations@northbayairport.com** *or* **(705) 472-9867**.

Excerpt from Airport Traffic Directives:

10.03 AVOP 6 Month Knowledge Confirmation

To ensure that all AVOP holders remain current with both the theoretical and the practical components of the entirety of the Airside Traffic Directives, every AVOP holder is required to provide, in writing, a statement confirming they have used their AVOP every 6 months from the date of issue, or April 2016 - whichever is less, until expiry.

This knowledge confirmation came into effect in 2016 for all AVOP holders.

All completed knowledge confirmation forms can be submitted to:

Mail: 50 Terminal St., Suite #1
North Bay, ON, P1B8G2

Email: operations@northbayairport.com

Fax: 705-472-9867

Should the AVOP holder not be able to provide proof that they have used their AVOP at least every 6 month a check ride must be scheduled with an airport evaluator, as listed below, to validate their knowledge of all traffic directives.

Airport Security/Operations and Service Development Manager
Ph. 474-3026 ext. 225

Failure to comply with this reporting within 14 calendar days following the 6 month timeframe will result in the AVOP being revoked.

10.06 Arrange for a 5 Year Recertification AVOP Test

All AVOP holders must recertify their AVOP every 5 years, in addition to the intermediary requirements listed in 10.05 above. When the applicant is prepared to attempt the AVOP recertification arrangements can be made by contacting:

Airport Security/Operations and Service Development Manager
Phone:. 705-474-3026 ext. 5305.

AVOP recertification is to be scheduled between April 1st and November 1st of the calendar year the AVOP is set to expire. This is done to ensure that the AVOP recertification is not cancelled and rescheduled due to weather and operational requirements, as is experienced during the winter.

The re-certification evaluation of a valid AVOP will comprise of a practical test, as appropriate by the operators AVOP classification. If an AVOP is not recertified within the five years it is issued for the AVOP will be revoked immediately and the individual will need to reapply.

10.07 Issuing of Airside Vehicle Operator Permits

After successfully completing an evaluation, the operator will be issued an AVOP from the airport manager or designate.

10.08 Accident, Incident, Hazardous Debris Reporting

Report all accidents, incidents, and occurrences of hazardous debris, to Airport Security. Incidents also include near misses.

10.09 Radio Frequencies and Hours of Operation

FSS Hours of Operation
06:30 – 22:30 daily

Radio Frequencies
Air ……118.3
Ground ……121.9

During FSS hours, vehicles are to monitor 121.9.

Vehicles working airside during FSS off hours broadcast intentions on 118.3 to North Bay Air Traffic.

10.10 Use of Mobile Phones While Operating a Motor Vehicle or Mobile Equipment

a. North Bay Jack Garland Airport Corporation strictly prohibits the use of mobile phones, tablets, and PDA's while operating vehicles and equipment.
b. The use of hands-free mobile phones should be kept to a minimum when driving.
c. To make or receive calls:

i. Pull over and stop; (clear of the maneuvering areas when airside)
ii. Allow a passenger to operate the phone;
iii. Make use of voice mail and respond to the call at a safer time; or
iv. Let someone else drive, freeing you up to make or receive calls.

AVOP holders who choose to violate this directive shall will have their AVOP suspended and face legal responsibility if they are involved in an accident and there is evidence that they were using a cell phone while driving.

10.11 Standard Two-way Radio Communication Requirement – Where Vehicle Control or Advisory is provided

Where air traffic services (ATC or FSS), or an approach UNICOM (AU), are provided the operator of a radio equipped vehicle will establish satisfactory two-way radio communication with the unit on the mandatory frequency (MF) or air traffic frequency, as appropriate, before entering the manoeuvring area.

10.12 Standard After Hours Radio Announcement - Where Vehicle Control or Advisory is not provided

1) Prior to proceeding onto the maneuvering areas:

Example:

"North Bay Air Traffic this is Shell 307 at North Bay Airport. I am proceeding onto Hotel Taxiway, Lima West, crossing 18/36, Lima East to Apron III. Any conflicting traffic please report on 118.3 North Bay Airport."

2) If you do not receive any radio transmission from other conflicting traffic you may proceed following the broadcast route.

3) If you receive a radio transmission from an aircraft, acknowledge the transmission, and respond accordingly.

Example: After announcing your intensions to proceed across 18/36 you get the following transmission:

Jazz 7779:
"Shell 307, Jazz 7779"

Shell 307:
"Jazz 7779, Shell 307, go ahead"

Jazz 7779:
"Shell 307, Jazz 7779, we are 10 miles out planning to land on Runway 36"

Shell 307:

"Jazz 7779, Shell 307, roger, we will hold short of Runway 18/36 on Lima West"

Wait until the aircraft is clear of the runway then rebroadcast your intentions.

4) Always broadcast your intentions before proceeding to a new location and listen for conflicting traffic.

5) When leaving the maneuvering area, always announce that you are off the maneuvering areas.

Example:

"North Bay air traffic, Shell 307 is off the maneuvering areas at the Garage Road.

10.13 Radio Monitoring

The operator of a radio equipped vehicle will maintain a continuous listening watch on the appropriate frequency, and visual watch for traffic at all times, when on the movement area.

10.14 Radio Communication Practices

Two-way radio communication practices, in accordance with the Study Guide for the Restricted Operator Certificate With Aeronautical Qualification (ROC-A) RIC-21and North Bay Airport traffic Directives, are used by all persons operating a vehicle on the manoeuvring area.

10.15 Out of Vehicle Radio Communication Practices

Airfield maintenance and other authorized ground personnel are required to:

(a) Have available to them, a portable radio capable of two-way communications, capable of being set to the ground traffic service (ATS) frequency 121.9 MHz or air traffic services 118.3 MHz;

(b) Carry this radio whenever they are on the manoeuvring area and it becomes necessary for them to work outside of an airport and/or service vehicle; or,

(c) Have an external speaker on the vehicle and be able to respond to in an acceptable time frame;

(d) Continuously monitor the appropriate frequency.

10.16 Airside Operation Vehicle Speed Limits

The following speed limits have been designed to ensure safe and efficient operations for all vehicles at all times.

Location:	Maximum Speed Limit
Movement Areas (Aprons)	25km/h
Service Roads	50km/h
Maneuvering Area	Ensure a safe and efficient operation of the vehicle, in the thorough completion of the tasks of the operator, taking into consideration factors such as vehicle and attachments operational limits, weather, other operations on the maneuvering area, etc.

It is the sole responsibility of the vehicle operator to ensure that the vehicle is operated in a safe manner at all times. Failure to operate the vehicle safely at any time will result in the individuals AVOP to be revoked immediately by the Airport Manager, or designate.

10.17 Apron II Access at Gate 1, Gate 2, Gate 2A

Gates are also Emergency Access points therefore they are not to be blocked for any length of time. Vehicles waiting for aircraft to arrive will be parked so they are not blocking the gate. Proceed to gate for airside access only after the aircraft has parked and engines are shut down.

When the vehicle is ready for airside access, proceed to gate and either press the Call Button or phone Airport Security at 705 474-2241.

At no time are vehicles permitted to follow any other vehicle through the gates. After your vehicle has proceeded through the gate, wait until the gate fully closes behind you before continuing to worksite.

10.18 Gate 1

Gate 1 will remain locked and secured at all times. Airport Security will be responsible for granting airside access through Gate 1 at all times.

10.19 Gate 2

During normal business days from 07:00 – 18:00 Gate 2 will remain open to allow courier access to Maintenance Garage. On weekends, stat holidays, and off hours the same procedure for Gate 1 will apply for Gate 2.

10.20 Gate 2A

Other than authorized personnel and vehicles, airside access through Gate 2A must first be authorized by the Airport Manager.

10.21 Garage Road Access to Apron II

If Apron II access is only available through Gate 2 and or 2A, vehicles will proceed past the Maintenance Garage then along Garage Road to the Apron . Because Garage Road crosses a Helicopter Flight Path, vehicles will stop at the Stop signs, in both directions, and look for any helicopter traffic. Only when no helicopter traffic is present along this Flight Path will it be safe to proceed.

When entering the Apron from Garage Road, stop and check for traffic be extremely cautious not to encroach traffic on Hotel Taxiway and Apron II, see diagram below. Always give aircraft the right of way.

10.22 North Bay Airport Apron Operating Procedures

1. Aircraft & Emergency vehicles always have the right of way. When in doubt, yield.
2. Pedestrians have the right of way. Be aware of enplaning and deplaning passengers.
3. Exercise extreme caution when entering Apron areas.
4. All vehicles entering the apron must be clear of all foreign material i.e. gravel, mud, ice…
5. No person shall throw, deposit or knowingly leave trash or garbage on the apron.
6. No smoking on the Apron, in or out of vehicles.
7. Headlights are to be on at all times.
8. All vehicles must be equipped with a rotating or LED amber beacon that can be seen by aircraft or ground vehicles from any position within 360 degrees. This beacon must be lighted and operating when the vehicle is moving and turned off when the vehicle is stationary.
9. Vehicle Apron speed must not exceed 25 KPH.
10. No vehicle will approach within 15 meters of an aircraft that is re-fuelling.
11. Before operating a vehicle on a Restricted Apron, a person must have a valid Airside Vehicle Operating Permit and a Restricted Area Pass.
12. A person issued a key to the Apron gate is deemed to be an authorized person. If a helper is required, the helper must stay with the authorized person at all times while in the restricted area.
13. Any authorized person using a door or gate for access to the apron must ensure that no unauthorized person gains access to the restricted area.
14. Any person encountering any obstruction or potentially hazardous situation is obliged to report it to Security immediately.
15. Each employer must determine that his/her employees are qualified to operate any vehicle that they may be required to operate on the restricted apron.
16. Each employer must ensure that they and all affected employees have read these directives and agree to abide by them.
17. Any infringement of these directives will result in the loss of apron privileges and /or a fine.
18. General Aviation Tenants do not require an AVOP but are restricted to accessing their hangers as noted in the red areas shown on the AVOP Plan in section 10.13.

10.23 North Bay Airport Apron II Site Plan

10.24 North Bay Airport AVOP Plan

10.25 Practical Test Evaluation Form

North Bay Airport Airside Vehicle Operators Permit
Practical Test Evaluation Form

Applicants Name	Restrictions D/A D D/X

"D/A" Permit

A. *Airside Entry/Exit*	Yes	No
Stops for Security		
Closes Gate After Entry and Secures Gate		
Wears Security Pass Visibly Displayed		

B. *Equipment*		
Turns Lights On/Off (Beacon/Flashing Lights-Other)		
On-Before Entering Active Apron Area		
Off-After Parking/Within Aircraft Perimeter		
Completes Circle Check of Vehicle Prior to Operating		

C. *Parking*		
Backs Into Defined Parking Spot		
Turns Head/Uses Mirrors for Backing Up		
Parks Only in Spaces Authorized for Vehicle in Use		

D. *Driving Along*		
Follows Prescribed Routes (Vehicle Corridors/Other)		
Maintains Speed but does not Exceed		
Proper Clearance-Parked Aircraft		
Right of Way Observance; A/C, Pedestrians, Vehicles		
Obeys Signs, Signals, Pavement Markings		
Crosses Aircraft Guide Lines at Right Angles		
Exercises Caution Around Corners, Buildings, Intersections, Exits, Other Vehicles, Aircraft		

E. *Orientation*

Is Able To Locate (From the Vehicle):

Aircraft Gates & Operational Stands By Number		
Security Gates		
Taxiway Entrances (Explains operational limits on the apron)		
Service Roads		
Hangars, Aprons, Assigned Parking (Cargo Facilities, Maintenance Facilities, Other)		
Restricted Areas (Applicable To This Exam)		

"D" Permit (must be taken after D/A Permit practical test)

F. *Equipment*		
Rotating Beacon Turned On		
Radio On At Correct Frequency		

G. *Route Planning*		
Able to Describe Available Routes Between Various Points on the Airport (without map)		
Plans Intended Route Before Proceeding		
Demonstrates Correct - FSS After Hours Procedures.		

H. *Communication Procedures*	Yes	No
Listens Out/Transmits Only on Clear Frequency		
Good Microphone Position, Switching		
Clear Speech		
Proper, Standard Phraseology Used		
Phonetic Alphabet Used Properly		
Call-Up-Uses Full Vehicle Identifier		
Request-Vehicle I.D. Location, Destination Activity, Intended Route and Time In Traversing Area		
Acknowledges Instructions Correctly		
Ends Transmission Correctly		

I. *Driving Along*		
Obtains Authorization Before Entering Manoeuvring Area		
Holds Short: Taxiway/Runway		
Service Road At Twy/Rwy		
Follows Approved Route		
Maintains Visual Check for Aircraft		
Uses Service Roads Wherever Possible		
Checks Vehicle For Mud, Gravel Before Entering Paved Surface From Unpaved Service Roads		
Speeed Limits not Exceeded		

J. *Recognition*		
Pavement Marking - Manoeuvring Areas:		
Runway Headings - Hold Lines - Helicopter Pads		
Aircraft Movement Guidelines-Threshold Markings		
Lights: Apron/Taxiway/Runway/Intersections/Threshold		
Runway-Taxiway-Aerodrome Beacon		

Signs:

Mandatory: Runway Hold and Road Hold		
Location: Runway/Taxiway		
Information: Taxiway/Apron		

K. *Orientation*

Able to Locate Directly from Vehicle:

Aerodrome Beacon		
Tower/F.S.S.		
Aprons, Runways, Taxiways		
Company and Other Facilities/ATB(s)		
Restricted Navigational and Other Facilities		
Service Roads		

Examiner's Notes:

Passed or Retest Request	P	F
Date		

Signature:

Evaluation Form Reviewed Feb 2016.

10.26 Approved Vehicles to Operate on Airside Maneuvering Areas

(Runways, Taxiways Service Roads requiring FSS Clearance)

As Reviewed January 2017

North Bay Jack Garland Airport Approved Vehicles

Airport Vehicle Call Sign	Make	Model	Colour	Reason for Access to Taxiways or Runways
Staff # 44	Chev	Van	Red	Field Inspections, maintenance and emergency
Staff # 45	Ford	Pick-up	Dark Brown	Field Inspections, maintenance and emergency
Staff # 47	Chev	Pick-up	Light Blue	Field Inspections, maintenance and emergency
Staff # 48	GMC	Pick-up	Black	Field Inspections, maintenance and emergency
Staff # 40	Ford	Pick-up	Blue	Field Inspections, maintenance and emergency
Truck # 80	Ford	Multi use truck	Red	Field Maintenance
Truck # 84	International	Plow Truck	Orange	Field Maintenance
Truck# 86	Chev	Multi -use Truck	Orange	Field Maintenance
Truck # 90	Kenworth	Plow Truck	Orange	Field Maintenance
Truck # 92	International	Plow Truck	Orange	Field Maintenance
Sander 85	White	Sander	Orange	Field Maintenance
Sander # 97	International	Sander	Orange	Field Maintenance
Blower # 122	SMI	Snow Blower	Orange	Field Maintenance
Blower # 121	RPM Tech	Snow Blower	Orange	Field Maintenance
Tractor # 150	John Deere	Tractor	Orange	Field Maintenance
Tractor # 151	AGCO	Tractor	Orange	Field Maintenance
Tractor # 152	Holder	Tractor	Orange	Field Maintenance
Grader # 153	Champion	Grader	Orange	Field Maintenance
Loader # 220	John Deere	Loader	Yellow	Field Maintenance

Loader # 221	CASE	Loader	Yellow	Field Maintenance
Backhoe # 222	John Deere	Backhoe	Orange	Field Maintenance

Maximum North Approved Vehicles

Airport Vehicle Call Sign	Make	Model	Colour	Reason for Access to Taxiways or Runways
Maximum North 310	Chev	1/2 Truck	Wine	Movement of Float Planes
Maximum North 311	Dodge	Truck	Black	Recovery of Aircraft

Nav Canada Approved Vehicles

Airport Vehicle Call Sign	Make	Model	Colour	Reason for Access to Taxiways or Runways
Tech 65	GMC	Sierra Pickup	Yellow	Nav Canada Technical Operations
Tech 66	GMC	Sierra Pickup	Yellow	Nav Canada Technical Operations
Tech 68	Pontiac	Passenger Van	Yellow	Nav Canada Technical Operations
Tech 69	GMC	Sierra Pickup	Yellow	Nav Canada Technical Operations

North Bay Fire & Emergency Services Approved Vehicles

Airport Vehicle Call Sign	Make	Unit # l	Colour	Reason for Access to Taxiways or Runways
Pump 1	Spartan	# 61	Red	Fire Department - Emergency
Pump 2	Spartan	# 62	Red	Fire Department - Emergency
Pump 3	Spartan	# 30	Red	Fire Department - Emergency
Car 3	GM Van	# 50	White	Fire Department - Emergency
Red 10	Rosenbauer	# 99	Red	Fire Department - Emergency
Red 11	Oshkosh	# 98	Red	Fire Department - Emergency
Tanker 1	GM Tanker	#37	Red	Fire Department - Emergency

Vehicles Restricted to Taxiways Only and Crossing 18-36

As Reviewed January 2017

Shell Approved Vehicles

Vehicle Call Sign	Make	Model	Colour	Reason for Access to Taxiways or Runways
Fueller 305	Ford	700	Yellow & White	To Refuel Aircraft on Aprons Other Than Apron 2
Fueller 306	International	S1900 F1954 6x4	Yellow & White	To Refuel Aircraft on Aprons other than Apron 2
Shell 307	Dodge Half Ton	Ram 2500	Dark Red	Tow Aircraft to and from Hangar on Apron 3

Voyageur Approved Vehicles

Vehicle Call Sign	Make	Model	Colour	Reason for Access to Taxiways or Runways
Fueller 300	Freightliner	FL80	Red & White	Fuel Delivery
Fueller 301	Freightliner	FL80	Red & White	Fuel Delivery