



Airside Vehicle Operating Permit (AVOP) Student Study Manual

D Permit

This manual applies to the following airports:

- Inuvik
- Fort Simpson
- Fort Smith
- Hay River
- Norman Wells
- Yellowknife

1 Introduction

The airside of an airport is a specialized working environment governed by rules designed to prevent accidents, avoid property damage and minimize the risk of injury to personnel.

This manual is a reference source to combine the applicable regulations, standard practices and procedures related to safe vehicle operation that experience has shown to be most important in achieving a safe airside working environment.

Persons using this manual are reminded that it has no legislative sanction. For purposes of interpreting and applying the law, the Acts and Regulations must be consulted.

The requirements contained in this manual apply at the six Government of the Northwest Territories (GNWT) owned and operated Airports listed on the first page of this manual. The requirements are based on Acts, Regulations, Standards and Procedures for the safe and orderly operation of vehicles on Airport Movement Areas.

Airports rely on mutual aid to provide the primary response for aircraft rescue and firefighting. In the case of uncontrolled airports, it is common for local off-airport fire, rescue, and police departments to provide the primary response to emergency situations on the airport. During emergency events the aerodrome may be closed, which would allow unrestricted airside access to responding agencies that do not possess an AVOP.

This manual pertains specifically to a “D” Airside Vehicle Operating Permit (AVOP) that would allow the permit holder to operate a vehicle on ALL airport movement surfaces, unless restrictions are specified on the permit. The D AVOP permit is issued by the Regional Airport Manager, or other personnel designated by the Regional Airport Manager.

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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

Aerodrome Beacon - Rotating or flashing white (strobe) light mounted on a tower or structure. It provides pilots with a visual reference of an aerodrome during periods of reduced visibility or darkness. It is used to indicate the location of an aerodrome from the air.

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

Aircraft Stand - An area on an Airport Apron designated for the parking of aircraft for the purpose of loading and unloading passengers and cargo, and the provision of ground services

Airport - An aerodrome for which under Part III of Canadian Aviation Regulations, an airport certificate has been issued by the Minister of Transport Canada

Airport Operator - The holder of an airport certificate, or the person in charge of such airport, whether an employee, agent or representative. The GNWT is the Airport Operator for all public airports in the Northwest Territories

Airport Traffic - All traffic on the manoeuvring areas of an airport and all aircraft flying in the surrounding area of an airport

Airside - That area of an Airport intended to be used for activities related to aircraft operations and to which access is normally controlled

Airside Vehicle Operating Permit (AVOP) - A permit issued by the Airport Operator certifying that the person named therein is authorized to operate a vehicle on the Airside of an Airport

Air Traffic Services Unit (ATSU) - An Air Traffic Control tower (ATC), a Flight Service Station (FSS), a Designated Flight Service Station (DFSS), or a Community Aerodrome Radio Station (CARS), operated by or on behalf of NAV CANADA at an Airport. They provide weather information, control airfield lighting, and provide vehicle and aircraft advisory or control services.

Air Terminal Building (ATB) - A building located adjacent to an airport apron, for the purpose of enplaning and deplaning passengers and for persons meeting and greeting those passengers. Passenger baggage is also processed through these structures

Approach Markers - Large wooden markers at both ends of the runway that help the pilot line up for their approach to the runway. They are painted day-glo orange or are covered in a retro-reflective material and are placed every 150 meters from the threshold centerline

Apron - That part of an aerodrome, other than the Manoeuvring Areas, intended to accommodate the loading and unloading of passengers and cargo, the refuelling, servicing, maintenance, and parking of aircraft, and any movement of aircraft, vehicles, and pedestrians to allow execution of those functions. (The Apron may be referred to as the Ramp)

Apron Traffic - All aircraft, vehicles, equipment and pedestrians using the Apron of an Airport

Aircraft Radio Control of Aerodrome Lighting (ARCAL) - The ARCAL system controls the aerodrome lighting by decoding a series of radio transmissions that are generated by keying the aircraft transmitter microphone a specified number of times within a 5 second period. Once activated, the ARCAL remains on for a minimum of

15 minutes after which period the ARCAL and associated selected lighting are automatically turned off. The 15-minute time period resumes every time an operation or brightness selection is made.

Community Aerodrome Radio Station (CARS) - An aerodrome radio station operated by NAV CANADA or a designated contractor, to assist local aviation activity through the provision of aviation weather and aviation communication services

Controlled Airport - An airport at which an Air Traffic Control unit is provided

Cross Walk - Any portion of a road, apron area, or any other area designated by a sign or surface marking as a pedestrian crossing

“DA” AVOP - An Airside Vehicle Operating Permit authorizing a person to operate a vehicle on aprons, uncontrolled taxiways and service roads only, at the airport named on the permit and may be subject to restrictions as specified by the Airport Operator

“D” AVOP - An Airside Vehicle Operating Permit authorizing a person to operate a vehicle on all airside areas, at the airport named on the permit and may be subject to restrictions specified by Airport Operator

Equipment - Any motor vehicle, 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

Flight Information Center (FIC) - A NAV CANADA operated facility that provides access to weather briefing and flight planning services. Airport operators file Aircraft Movement Surface Condition Reports and NOTAMS with the FIC. The FIC for all airports in the NWT is in Edmonton, Alberta.

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 control services for designated uncontrolled Airports.

Foreign Object Damage - The damage done to aircraft engines, tires, or the airplane body from rocks, trash, or the actual foreign object debris found on Runways, Taxiways and Aprons.

Foreign Object Debris (FOD) - A substance, debris or article alien to the vehicle or aircraft which would potentially cause damage. FOD includes loose hardware, tools, parts, pavement fragments, catering supplies, building materials, rocks and sand, pieces of luggage, baggage tags, pens, coins, badges, hats, soda cans, paper clips, rags, trash, paperwork and even wildlife. Anything that can find its way into an aircraft engine or flight control mechanisms is a recipe for foreign object damage.

Frangible Object - An object of low mass designed to break, distort or yield on impact so as to present the minimum hazard to aircraft. Airfield signage, visual aids and airfield lighting are mounted on frangible couplings as required under legislation.

Ground Control - The operating position in the Air Traffic Control (ATC) tower that provides positive control of aircraft and vehicles on an airport’s manoeuvring areas during the ATC tower’s hours of operation.

Groundside - That area of an airport not intended to be used for activities related to aircraft operations and to which the public normally has unrestricted access.

Insurance - A contract binding a company to indemnify an insured party against specified loss in return for premiums paid.

Instrument Runway - Runways intended for the operation of aircraft using instrument approach procedures.

Intersection - The point where two runways, a runway and a taxiway, or two taxiways cross or meet or where a taxiway and apron meet.

Landing Area - The part of a movement area intended for the landing or take off of aircraft

Local Airport Traffic Directives (LATDs) - An additional set of airport traffic directives developed to address specific differences at an airport, by establishing safety procedures specific for that airport.

Magnetic North - The direction indicated by a magnetic compass. Magnetic North moves slowly with a variable rate.

Manoeuvring 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 (taxiways and runways), excluding aprons.

Marker - An object displayed above ground level in order to indicate an obstacle or delineate a boundary.

Marking - A symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical or vehicular information.

Movement Area - That part of an aerodrome to be used for the surface movement of aircraft and vehicles and includes the manoeuvring areas (taxiways and runways) and aprons.

Night - The period beginning one half-hour after sunset and ending one half-hour before sunrise and in respect of any place where the sun does not rise or set daily, the period during which the centre of the sun's disc is more than six degrees below the horizon.

Non-Instrument Runway - A runway intended for the operation of aircraft using visual approach procedures.

Obstacle - All fixed (whether temporary or permanent) and mobile objects or parts thereof that are located on an area intended for the surface movement of aircraft that extend above a defined zoning surface intended to protect aircraft in flight.

Obstacle Limitation Surface (OLS) - A surface that establishes the limit to which objects may project into the airspace associated with an aerodrome so that aircraft operations at the aerodrome may be conducted safely.

Operational Stand - An area on an apron designated for the parking of aircraft for the purpose of loading and unloading of passengers and cargo, 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.

Precision Approach Path Indicators (PAPI) - A visual aid that provides guidance information to help a pilot acquire and maintain the correct approach (in the vertical plane) to an aerodrome or an airport. It is generally located beside the runway approximately 300 meters beyond the landing threshold of the runway.

Reduced Visibility Operations Plan (RVOP) - A plan that calls for specific procedures established by the aerodrome operator and/or ATC when aerodrome visibility is below RVR 2600 ($\frac{1}{2}$ statute mile) down to and including RVR 1200 ($\frac{1}{4}$ statute mile).

Restricted Operator Certificate with Aeronautical Qualification (ROC-A) - A document issued by Industry Canada certifying that the holder may act as an operator on any aeronautical radio station fitted with radiotelephone equipment only, transmitting on fixed frequencies and not open to public correspondence. An ROC-A is a required component of a D AVOP.

Regional Airport Manager - A Department of Infrastructure authorized official representative responsible for the operation and maintenance of an Airport and/or a number of Community Airports within a region.

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.

Restricted Area Identification Card (RAIC) - A biometrically encoded card issued by Transport Canada that confirms card holder identity and security clearance to permit access to the restricted areas at an Airport.

Road Holding Position – A designated position on a service road which vehicle/equipment operators are required to hold and advise Air Traffic Services of intentions before proceeding onto or leaving the runway or manoeuvring area.

Runway – A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

NOTE: For the purposes of vehicle control and vehicle communication service this area includes 60m (200 ft.) from the runway edge on paved surfaces and 45 m (150 ft.) from the runway edge on gravel surfaces, and 150 m (500 ft.) from the pre-threshold of a runway.

Runway End Safety Area (RESA) – An area adjacent to the end of a runway strip primarily intended to reduce the risk of damage to an aircraft undershooting or over running the runway.

Runway Identification Lights (RILS) – Runway identification lights are unidirectional strobe lights located on the approach end of a runway that are used when an aircraft is in the landing phase of flight.

Runway Shoulder - An area adjacent to the edge of the runway pavement so prepared as to provide a transition between a paved runway and the adjacent surface.

Runway Visual Range (RVR) – The horizontal range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

Statute Mile (SM) - 1 statute mile equals 1.609344 kilometers

Taxiway - That part of an airport used for manoeuvring aircraft and airport equipment between the apron area and runway, normally identified by a letter(s) or a combination of letters followed by a number, on black background with yellow characters.

Threshold – The beginning portion of a runway usable for landing aircraft.

Threshold Markers – Wooden or manufactured markers, painted with Day-Glo paint or having retro-reflective material fastened to them, orange and white or just orange in colour, used on gravel runways indicating the threshold of a runway usually placed 15 m (50 ft.) to the side of the threshold.

Touchdown Zone – Portion of a runway, beyond the threshold, where it is intended that the landing aircraft make first contact with the runway.

True North - Direction of a meridian of longitude which converges on the North Pole.

Uncontrolled Airport – An airport that is “uncontrolled” has no operating Air Traffic Control tower.

Uncontrolled Taxiway - A taxiway that is not controlled by an Air Traffic Services Unit and to which a DA AVOP permit holder normally has access.

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 Corridor - A roadway on the apron, marked by two solid white lines 7.5 m (25 ft) apart, centred by a single white broken line, to provide guidance to vehicle and equipment operators.

Vehicle Crossing Point - A location on an apron, indicated by white surface markings, where vehicles are to cross an aircraft taxi-line.

Vehicle Operator - The person responsible for the operation and safety of the vehicle and equipment, usually referred to as the driver.

Visual Approach Slope Indicating System (VASIS) - Lighting units in the form of a wing bar located on the side of runways that provide visual information to a pilot on approach to a runway. VASIS indicates to a pilot the aircraft is either on, above or below the correct approach slope to the runway.

Warning Devices - A siren; flashing RED, BLUE, or AMBER lights; and/or a backup alarm

2 Airport Traffic Directives - Airside Operations

2.1 Airport Traffic Directives

The Airport Traffic Directives contained in this manual apply at the six Airports owned and operated by the Government of the Northwest Territories (GNWT) listed on the first page and are based on Acts, Regulations, Standard Practices and Procedures for the safe and orderly operation of motorized vehicles on airport movement areas. This Airside Vehicle Operating Permit (AVOP) Manual meets the intent of the Canadian Aviation Regulation Part III, Subpart 2-Airports, CARs 302.10.

2.2 Local Airport Traffic Directives

There may be considerable differences in the operating conditions at each airport in the Northwest Territories because of the size and complexity of the operation, climatic conditions, geographical location, and other factors. Local Airport Traffic Directives (LATDs) address these differences by establishing safety procedures specific for that airport, in addition to those stated in this manual. The development of LATD(s) is the responsibility of the Regional Airport Manager and apply at the airport where issued.

If Local Airport Traffic Directives are in effect for an Airport, the Airport Manager should consider including the following information in the LATD:

- How to arrange for an Airside Vehicle Operating Permit test;
- Any specific procedures (designated routing for vehicles, etc.) or restrictions in effect at the airport;
- Any Air Traffic Services Unit (ATSU) agreements relating to vehicle operations;
- How and when to report an accident;
- How and when to report hazardous materials (i.e. FOD) on aircraft movement surfaces;
- The Apron Site Plan, including gate parking areas;
- The Airport Site Plan, including identifying any surfaces that are gravel (on paved airports) and aircraft hardstands (on gravel airports); and
- Radio Frequencies in use at the airport (for a D AVOP)

2.3 D Airside Vehicle Operating Permit (AVOP) - General

There are two types of Airside Vehicle Operating Permits (AVOP), a DA permit and a D permit. Both are for the performance of assigned duties on the airside of an airport, and may be subject to restrictions that are specified on the permit. The Airport Traffic Directive's objective is to ensure the safe operation of authorized vehicles on the Airside of an airport. A **D AVOP** allows the holder the privilege, based on need, to operate a motorized vehicle on **all airside areas, including taxiways, runways, aprons and service roads** of an Airport, and is issued locally at the discretion of the Regional Airport Manager. Operating restrictions may apply as required.

2.3.1 To acquire a **D AVOP**, the following steps must be undertaken:

- The applicant and employer complete an AVOP application "justifying a need" that a **D AVOP** is required;
- The Regional Airport Manager or designate must approve the application;
- The applicant must provide a valid Territorial or Provincial Driver's licence;
- The applicant must study this manual, the Local Airport Traffic Directives (LATD) study guide, if applicable, and pass both a written exam(s) and a practical driving test;
- The applicant must be in possession of a Restricted Operator Certificate with Aeronautical Qualification (ROC-A) radio licence or must study the applicable manual and pass the test to acquire an ROC-A radio licence; and

- The vehicle owner must provide proof of valid automobile liability insurance endorsed to cover airside operations for the vehicle(s) to be operated on the airside of an airport.

2.4 D Airside Vehicle Operating Permit (AVOP) Conditions

- 2.4.1 No person shall operate a vehicle on the airside area of an airport unless the following conditions are met:
- An operational need has been identified;
 - The vehicle operator holds a valid Territorial or Provincial Driver's Licence, with the appropriate class, to operate the intended vehicle;
 - The employer or individual attests to the fact the person is qualified to operate specific vehicle/equipment airside;
 - The vehicle(s) is properly equipped and insured for operating airside;
 - The vehicle operator is in possession of a valid Airside Vehicle Operating Permit (D AVOP) for the specific airport;
 - The vehicle operator agrees, by signing his/her permit, to comply with the Airport Vehicle Operating Permit (AVOP) Manual and Local Airport Traffic Directives (LATDs) requirements (if applicable);
 - The vehicle operator accessing airside is under escort by a person who holds a valid D AVOP permit for the specific airport; or
 - The vehicle operator accessing airside has obtained authorization from the Regional Airport Manager under specific instructions for the specific airport.

2.5 D AVOP Issuing Authority

- 2.5.1 Regional Airport Managers and designate have the authority to issue a **D AVOP** for Airports under their control based on the applicant's "need", passing a written knowledge exam(s) and passing an airside practical driving test. The Regional Airport Managers also have the authority to suspend or cancel permission to operate a vehicle on the airside of an airport, owned and operated by the GNWT, for violations to the terms and conditions of AVOP program as specified in Section 11 of this manual.
- 2.5.2 An application for a **D AVOP** must be made to the Regional Airport Manager or designate by the applicant in writing, and must include the address of the applicant and full justification for the need to have a **D AVOP**.
- 2.5.3 Other information pertinent to the issuance of a **D AVOP** not addressed in this manual may also be identified in the Local Airport Traffic Directives in force at the airport where the application is made. To avoid delays, an AVOP applicant should check with the Regional Airport Manager or designate to verify if other requirements such as insurance, security clearances, other certificates or licences, may need to be submitted at the time of the application for an AVOP.

2.6 Insurance Requirements

- 2.6.1 All vehicle/equipment, except those under escort, owners/operators who operate airside will provide proof that those vehicles/equipment operating airside are covered by an automobile liability insurance policy **endorsed to cover airside operations**. Authority for airside access will only be granted by the Regional Airport Manager or the designate upon the presentation of a Certificate of Insurance, endorsed as described above, issued by either the Insurance Company or their Authorized Representative (Broker).
- 2.6.2 In order to operate a motorized vehicle or motorized equipment airside, the vehicle or equipment owner must provide proof they have at least \$2,000,000.00 of liability insurance coverage.
- 2.6.3 The Certificate of Insurance must clearly state that **all owned, leased or rented** motorized vehicles and equipment operated airside are insured as described above, or include a list of motorized vehicles and equipment that are covered by the policy to the Regional Airport Manager or designate.
- 2.6.4 Proof of Insurance shall be provided annually to the Regional Airport Manager or designate by the vehicle or motorized equipment owner when the new policy is issued.

2.7 Medical Requirements

- 2.7.1 **General Health, Hearing, and Vision** - The general health, hearing, and vision requirements to hold an AVOP are the same as for a Territorial or Provincial Driver's Licence. Loss of a Provincial/Territorial Driver's licence for any medical reason shall render the AVOP cancelled. The AVOP holder shall notify the Regional Airport Manager or designate immediately.
- 2.7.2 **Medication** - AVOP Holders shall not operate a motorized vehicle airside while taking any medication that impairs concentration or performance.

2.8 AVOP Permit Holder Responsibilities

- 2.8.1 AVOP permit holders are responsible for:
- Disclosing any medical condition to the permit holder's employer, which may affect their ability to drive safely on airside;
 - Carrying a valid Territorial or Provincial Driver's licence when operating a vehicle on the airside of an airport
 - Ensuring that their **D** AVOP is valid
 - Notifying the Regional Airport Manager or designate if their Provincial/Territorial Driver's licence is lost, suspended or revoked

2.9 Vehicle/Equipment Escorts Airside

A Company whose employee has a valid driver's licence, an AVOP permit, and properly equipped airside vehicle with automobile liability insurance endorsed to cover airside operations can provide vehicle escort service on the airside of an airport. However, it must be fully understood the company is responsible and liable for the escorted vehicle(s) should it be involved in an accident or incident.

2.9.1 Rules for Airside Vehicle Escorts:

- The person providing the escort must follow all requirements listed in section 2.3.1 in this manual
- The company/person providing the vehicle escort must have valid automobile liability insurance endorsed to cover airside operations and the vehicle must be properly equipped (as specified in section 5 of this manual)
- The person/company providing the escort is totally responsible and liable for the escorted vehicle(s)
- The person providing the escort must remain with vehicle(s)/equipment under escort at all times
- The person providing the escort is responsible for briefing the escorted vehicle/equipment operator(s) on airside operational procedures prior to entering airside
Note: The Airside Escorting Briefing located on the next page of this manual can be used as a guide on topics to cover during the briefing
- The person providing the escort must have a valid AVOP permit for the movement areas being accessed (DA AVOP or D AVOP); and
- As soon as the escorted vehicle(s)/equipment complete their assigned airside task, they must be escorted off airside.

NOTE: Security Regulations can supersede escort rules. The Regional Airport Manager also has the right to restrict escort rules at any time.

NOTE: Depending on the nature of the activity being performed on airside and the potential risk of incursion, the Regional Airport Manager may set a limit as to how many vehicles/equipment one person can escort. The Regional Airport Manager is to communicate the limit with the escort prior to the start of the activity on airside. Alternatively, the Regional Airport Manager can establish and document the limit in the Local Airport Traffic Directives (LATDs).

AIRSIDE ESCORTING BRIEFING

Any person operating a vehicle that is being escorted airside must clearly understand and comply with the requirements shown in the list below. Failure to do so could lead to their removal from airside and withdrawal of airside privileges.

BRIEFING TOPICS

No person shall operate a vehicle on airside in a reckless or dangerous manner which poses a threat to aircraft, vehicle traffic, or airside personnel and passengers.

Smoking is not permitted anywhere on the airside of an airport, including inside a vehicle. This prohibition includes the use of e-cigarettes.

No person shall operate a vehicle on the airside of an airport while under the influence of **drugs or alcohol**. Operating a vehicle under the influence is an offence under the Criminal Code of Canada and the Northwest Territories' Highway Traffic Act.

The operator of the vehicle being escorted must be in possession of a **valid driver's license with the appropriate class for the vehicle being operated**.

No person shall operate a vehicle if they have been prohibited from operating a vehicle imposed by a court or judge

While operating airside, vehicles under escort must remain behind the vehicle escorting them. They cannot pass, come along side or reverse away from the escorting vehicle without verbal confirmation from the person escorting them.

Note: Hand signals must not be used or accepted in place of verbal communication

Vehicles under escort must not leave a designated work/construction area without the escort vehicle.

Use of a cell phone on airside is strictly prohibited, except for work related purposes. At no time can a cell phone be used in any manner while being escorted or otherwise operating a vehicle.

The use of cell phones on the airside is subject to NWT Distracted Driving Laws. Personnel are prohibited from using cellphones where a spark may cause a concern.

Vehicle operators must ensure that the surfaces of movement areas are kept free of **foreign object debris (FOD)** by checking the wheels, tires, and mud flaps before they enter airside. Foreign material such as ice, mud, clay, gravel, organic matter, de-icing substance not approved for airside use (i.e., salt) or any other debris dropped on airside can seriously damage aircraft engines and shall not be knowingly brought airside.

Unless in an approved location; garbage, debris or other materials are not permitted to be disposed of on airside.

ALL personnel working on airside are required to wear reflective outerwear when outside their vehicle on Airside. The outerwear shall meet or exceed Class 2 CSA Z96-09 Standards.

As a part of the GNWT's Airports Safety Management System, it is the responsibility of all personnel working airside to **report all accidents**, such as slip and falls, injuries, damages etc. **as well as any unsafe conditions observed** to the Regional Airport Manager, designate or the Air, Marine & Safety Division Duty Manager.

2.10 AVOP Permit Expiry, Renewal, Change of Employer, Transfer, Multiple Airports Permit

- 2.10.1 **Expiry** - Subject to being revoked or suspended, an Airside Vehicle Operating Permit (AVOP) issued under this AVOP Manual is valid for a period of up to five years. If the permit is required for a shorter period of time due to a temporary need, the period of validity shall be for a lesser period and specified on the AVOP permit. Upon the expiry of an Airside Vehicle Operating Permit or termination of employment, the employer or permit holder shall immediately return the AVOP permit to the Regional Airport Manager or designate.
- 2.10.2 **Renewal** - An AVOP permit holder must renew their permit prior to expiry. Permits may be renewed up to 3 months prior to expiry. If a permit is not renewed prior to expiry, it will be deemed to have lapsed and the initial application process will be required to be undertaken, including all testing. A valid Territorial or Provincial Driver's Licence along with proof of automobile liability insurance endorsed to cover airside operations must be provided at the time of renewal. An AVOP application must also accompany a request for renewal. The Employer or Individual will reconfirm the applicant's employment and reconfirm the "need" to operate a vehicle airside.
- 2.10.3 **Change of Employer** - AVOP permits are filed by employer and are not valid if the permit holder becomes employed by a new employer. If there is a change in employer, the permit holder is to return the original permit to the former employer, the Regional Airport Manager or designate and submit a new application, signed by the new employer, confirming the person is employed by that company and that they have a "need" to operate a vehicle airside.

The Regional Airport Manager or designate will determine if there is a need to retest an applicant who is changing employer. If the employment change is immediate, the issuance of a new permit without testing may be authorized. If a break occurs in the employment change that exceeds 6 months, the previous permit will be deemed to have lapsed and the initial application process will be required to be undertaken, including all testing.

Applicants, who are employed by multiple employers and are required to operate a vehicle on the airside of an airport by more than one employer, will have to provide an application for each employer. They shall, either at the discretion of the Regional Airport Manager or designate, hold 2 AVOP permits or be endorsed for an additional employer on one permit. The permit application and supporting documentation will be filed in each employer's file held by the Regional Airport Manager. Automobile liability insurance endorsed to cover airside operations will be required for each employer for company vehicles being operated airside.

- 2.10.4 **Transfer** - If an AVOP holder is relocating from one NWT community to another and is being employed by the same employer, the AVOP permit holder can make arrangements with the Regional Airport Manager or designate to have their permit transferred to a different airport. This would include submitting an application for approval and undertaking any additional testing requirements, i.e. if the airport has LATDs or has a surface that is gravel versus pavement.
- 2.10.5 **AVOP Permit for Multiple Airports** - If an AVOP permit holder is required to perform duties at multiple airports, the AVOP permit holder can make arrangements with the Regional Airport Manager or designate to have their permit endorsed for additional airports or receive a Regional AVOP permit. This would include submitting an application for approval and undertaking any additional testing requirements, i.e. if the airport has LATDs or has a surface that is gravel versus pavement.

3 Airside Safety

3.1 General

- 3.1.1 At GNWT airports, the only persons allowed airside are those that have an established “need”, such as airport staff, air carrier employees, aircraft owners, aircraft servicing personnel, persons authorized by Regional Airport Manager or designate, and ticketed passengers when escorted by airline personnel to and from an aircraft to groundside or the air terminal building.
- 3.1.2 No pedestrian on an apron shall impede, interfere with or obstruct in any way the free movement of apron traffic.
- 3.1.3 Pedestrians are not allowed on the manoeuvring areas of an airport without permission.
Note: Manoeuvring areas only include runways and taxiways. While, the movement areas include runways, taxiways and aprons.
- 3.1.4 It is the responsibility of all personnel working airside to report all accidents, such as slip and falls, injuries, damages etc. and any unsafe conditions observed to the Regional Airport Manager, designate or the Air, Marine & Safety Division Duty Manager.
- 3.1.5 **Smoking is not allowed anywhere on the airside of an airport, including inside a vehicle.**
- 3.1.6 No person shall operate a vehicle on airside in a reckless or dangerous manner which poses a threat to aircraft, vehicle traffic, or airside personnel and passengers.
- 3.1.7 No person shall operate a vehicle on the airside of an airport while under the influence of drugs or alcohol, or if they have been prohibited from operating a vehicle imposed by a court or judge. Operating a vehicle under the influence is an offence under the Criminal Code of Canada and the Northwest Territories' Highway Traffic Act.
- 3.1.8 Passengers shall not be onboard an aircraft that is being refuelled, with the engines running.

3.2 Foreign Object Debris (FOD)

- 3.2.1 Foreign material such as ice, mud, clay, gravel, organic matter, or any other debris dropped on airside can seriously damage aircraft engines and shall not be knowingly brought airside. Vehicle operators must ensure that the surfaces of movement areas are kept free of foreign object debris by checking the wheels, tires, and mud flaps before they enter airside.
- 3.2.2 Chlorides, salts, or other materials corrosive to aircraft shall not be allowed to be tracked anywhere on airside. Vehicle operators shall ensure their vehicle does not track on to airside surfaces any chemical that is not authorized for use airside by the Airport Operator. The Regional Airport Manager or designate can answer any questions in this regard.
- 3.2.3 All foreign object debris (i.e. plastic bags, construction material, baggage tags, garbage, etc.) shall be picked-up, disposed of in FOD containers and reported immediately to their supervisor and the Regional Airport Manager or designate.
- 3.2.4 Occasionally FOD which is more serious in nature may be found on airside movement areas. This includes tools, fuel caps, aircraft components, freight, etc. FOD of this nature must be turned in to the Regional Airport Manager, designate or the local ATC/FSS/CARS, for recording into the site's FOD logbook and holding for return to its owner.

3.3 Personal Entertainment/Communications Devices

- 3.3.1 Personal entertainment devices (MP3 players, iPods etc.) are not permitted to be operational (switched on) on airside movement areas.
- 3.3.2 The use of cell phones on the airside is strictly for work related purposes and employees are to follow the NWT Distracted Driving Law. Personnel are prohibited from using cellphones where a spark may cause a concern.
- NOTE: The use of a cellphone is not a substitute for a radio unless as outlined in section 10.3.**
- 3.3.3 At no time are devices with headsets/earphones allowed to be used when operating a motor vehicle airside.
- 3.3.4 If a motor vehicle operator is required to communicate with the ATC, the FSS or the CARS on an airport radio frequency, headphones can be used as a component of the airport radio system installed in the motor vehicle/equipment.

3.4 Situational Awareness

- 3.4.1 Vehicle operators must recognize the importance of situational awareness in relation with time, place and activity when operating a motor vehicle on the airside as it may have an effect on their ability to operate safely. Factors that may hamper a vehicle operator's situational awareness include:
- Being intently focused on any one thing to the exclusion of everything else;
 - Vague or incomplete instructions that transmit ineffective communications;
 - Personal conflicts, either at home or at work, involving the vehicle operator which may cause or involve fatigue and stress;
 - Running behind schedule;
 - Being task overloaded; and
 - Degraded operating conditions, such as equipment malfunctions, rain, fog, or snow

3.5 High Visibility Outerwear

- 3.5.1 Part of remaining safe airside is to be visible, especially in darkness or low light situations. As such, **ALL** personnel working on airside are required to wear reflective outerwear when outside their vehicle on Airside. The outerwear shall meet or exceed **Class 2 CSA Z96-09 Standards**.
- 3.5.2 In cases where wearing safety vests would specifically interfere with the performance of duties, only the following personnel are exempt from the requirement of wearing high visibility outerwear:
- RCMP Officers (uniformed);
 - Fire and Ambulance;
 - Canada Border Services Agency;
 - Citizenship and Immigration Canada; and
 - Canadian Forces personnel (uniformed).

3.6 Priority of Airside Traffic

- 3.6.1 **Aircraft have the right-of-way airside, unless there is an emergency vehicle displaying flashing red light or flashing red and flashing yellow lights.** Before entering the manoeuvring area, the vehicle operator shall always visually check and ensure that aircraft are not approaching or departing.
- 3.6.2 In order of priority, vehicle drivers will yield to:
- An emergency vehicle responding to an emergency displaying flashing red light or flashing red and flashing yellow lights;
 - An aircraft taxiing, about to taxi or being pushed or towed; and
 - Other vehicles in accordance with the local air directives.

4 Responsibilities and Duties

4.1 Employer or Vehicle Owner

- 4.1.1 The employer or vehicle owner must ensure the vehicle being operated airside is:
- Properly insured and equipped for the area they operate on airside;
 - Maintained in safe operating condition; and
 - Their employees are qualified and licenced to operate the vehicle or equipment while performing their duties airside.

4.2 Vehicle Operator

- 4.2.1 The vehicle/equipment operator is responsible for determining the vehicle or equipment they are operating airside is in safe condition, and the required safety equipment, as specified in section 5 of this manual, is accessible and in good operational condition.
- 4.2.2 It is the responsibility of all vehicle operators to immediately notify their supervisor, employer or vehicle/equipment owner of any equipment malfunction or disrepair.

4.3 D AVOP Permit Holder

- 4.3.1 It is the responsibility of all D AVOP permit holders to report to the Regional Airport Manager or designate if any unauthorized person(s), including ticketed passengers who are walking airside unescorted.

NOTE: An AVOP permit holder may request the unauthorized person(s) to leave airside.

- 4.3.2 It is the responsibility of every D AVOP permit holder to carry a valid Territorial or Provincial Driver's licence when operating a motor vehicle airside.

NOTE: Regional Airport Managers are to maintain a running list of all AVOP holders within their Region.

- 4.3.3 While operating a motor vehicle on the airside of an airport, a D AVOP permit holder must comply with all airside operational procedures in this manual and the Local Traffic Directives Manual, if applicable, and be an authorized D AVOP holder.
- 4.3.4 If a D AVOP permit holder encounters any obstruction or potentially hazardous condition or accidents on airside, the permit holder must immediately report the nature and location of the hazard to the Regional Airport Manager, designate or the Air, Marine & Safety Division Duty Manager for remedial action.

5 Safety Equipment

5.1 Self-Propelled Equipment

- 5.1.1 All self-propelled vehicles shall be equipped with operating headlamps, tail lamps, parking lamps, rotating or flashing warning beacon(s), and if licenced for road use, turning signals and a licence plate lamp.
- 5.1.2 Vehicles/equipment operating on airside shall be equipped with a functional amber/yellow warning beacon except emergency service vehicles. Emergency service vehicles shall be equipped with red warning lights.
- 5.1.3 Vehicle warning beacons shall have a flash frequency of between 60 and 90 flashes per minute. The effective intensity of the flash shall be not less than 40 candela (cd) of red or yellow (amber) light.
- NOTE: SAE J845 Class 1 or SAE J845 Class 2 warning beacons meet the required airport standards.**
- 5.1.4 Warning beacons must be visible 360° from the air. On vehicles with a cab, where the cab is higher than the cargo or box area, the warning beacon shall be mounted on top of the cab. On vehicles where the cargo or box area is higher than the cab, the warning beacon shall be mounted on the cargo or box area.
- 5.1.5 Vehicles without a cab (i.e. baggage or cargo tractors) must be equipped with a warning beacon mounted on a mount suitably high enough that it is not obstructed by any personnel operating or riding in the vehicle.
- 5.1.6 Warning beacons are not permitted to be mounted in the interior of any vehicle.
- 5.1.7 Police, Emergency Services, and other vehicles equipped with safety marking prescribed for their normal operation are approved for operation on airport movement areas.
- 5.1.8 Drivers and passengers must wear seat belts while vehicles and equipment are in motion airside, provided that seat belts were installed for use by the original manufacturer.
- 5.1.9 Vehicles/equipment being operated on manoeuvring areas shall also be equipped with a radio capable of communicating with the ATC/FSS/CARS and a flare kit containing at least two red road flares.

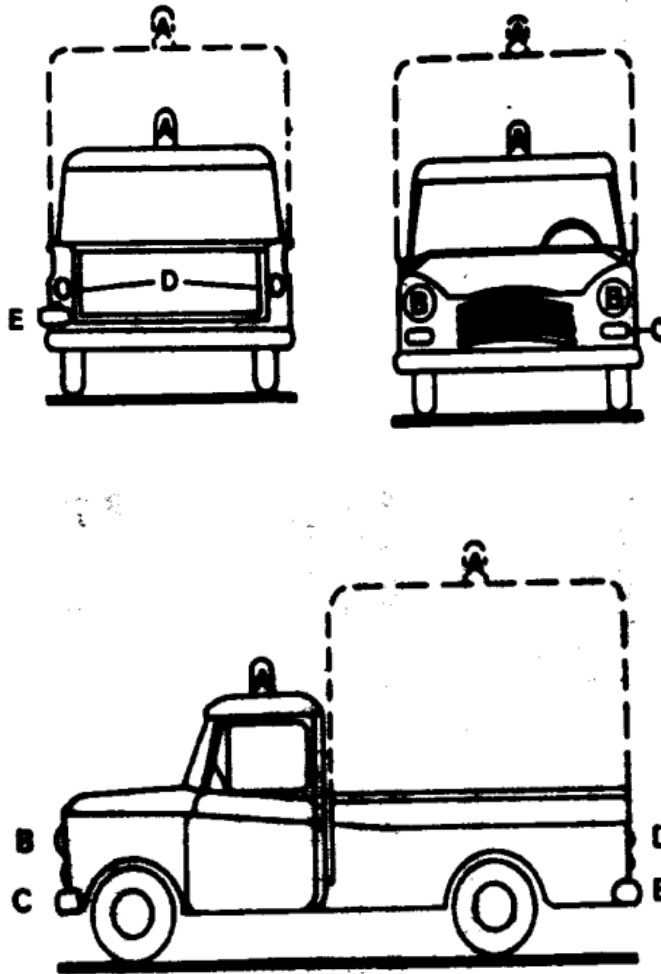
5.2 Towed Equipment

- 5.2.1 All towed equipment is required to have permanently affixed retro-reflective material as follows:
- One 4 cm (1.5 in) strip of yellow retro-reflective strips along the full length and width of the equipment body (above the wheels); and
 - Two 4 cm x 10 cm (1.5 in x 4 in) diagonal strips of yellow and black retro-reflective panels on the front and rear lower corners to show the overall dimensions of the equipment.
- 5.2.2 The presence of equipment on movement areas can be a significant hazard to taxiing aircraft and service vehicles. For this reason, it is important that the retro-reflective material on all equipment be affixed, clean, and in good condition at all times.

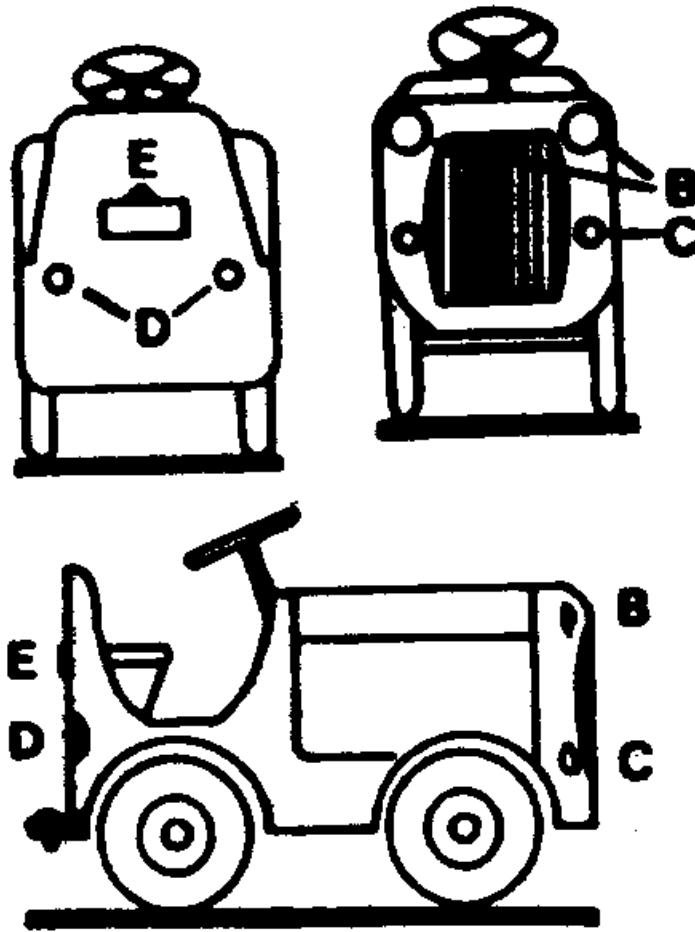
5.3 Safety Marking Requirements

Self-Propelled Vehicles with Cabs

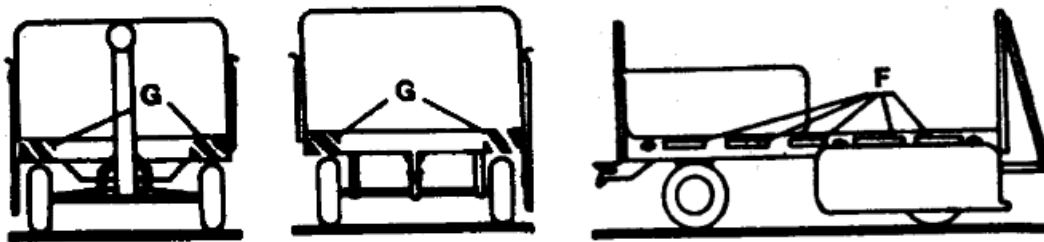
- A - Warning Beacon
- B - Head Lamps
- C - Parking/Signal Lamps
- D - Tail/Signal Lamps
- E - License Plate Lamp
- F - Retro-Reflective Strip
- G - Retro-Reflective Panel



Self-Propelled Vehicles without Cabs



Towed Equipment/Vehicles



6 Airside Security

6.1 General

- 6.1.1 All gates must be kept closed and locked to prevent unauthorized personnel or vehicles from accessing airside areas. Ensuring gates are closed also reduces the potential for wildlife accessing the airside and posing a threat to aviation safety.
- 6.1.2 **Any person that has established a need, including all AVOP permit holders, entering or exiting airside must remain at the gate until after the gates have been manually or electrically closed.**
- 6.1.3 Manually operated gates shall be locked with a suitable lock and/or chain supplied by the airport operator. Electrically operated gates are considered locked when closed as the gate operating mechanism prevents the gate from moving when not energised.



7 Reduced Visibility Operations (if applicable)

7.1 General

- 7.1.1 The Canadian Aviation Regulations and the Transport Canada Aerodrome Standards and Recommended Practices (TP312 5th Edition) provide direction to Airport Operators relating to ground traffic on airport manoeuvring areas when visibility is reduced. This may be from fog, ice fog, snowfall, smoke or other contaminants in the air.
- 7.1.2 Airports desiring to allow for vehicle and aircraft movements on airport manoeuvring areas during periods of reduced visibility are required to establish procedures to manage traffic such as vehicles, during poor visibility conditions to minimize any potential conflict with taxiing aircraft. As an AVOP permit holder you will be provided with additional information on Reduced Visibility Operation Plan (RVOP) if your airport has developed such a plan.
- 7.1.3 Presently **Yellowknife** Airport is the only airport in the NWT with a Reduced Visibility Operations Plan (RVOP). Important information regarding vehicle operations on airport surfaces is included in the plan. An excerpt from the Yellowknife airport plan is included, below.

Manoeuvring Areas:

During RVOP, only essential vehicles will be authorized to enter manoeuvring areas such as:

- Emergency vehicles
- Airfield maintenance vehicles
- Other equipment deemed necessary by the Regional Airport Manager

Main Apron:

During RVOP, only essential vehicles will be authorized to enter movement areas such as;

- Emergency vehicles
- Airfield maintenance vehicles
- Airline ground servicing vehicles
- Fuel dispensing equipment
- De-icing vehicles
- Other equipment deemed necessary by the Regional Airport Manager

Vehicle operators working on the movement areas must be aware of the elements in the current Yellowknife Airport RVOP.

8 Vehicle Operating Procedures

8.1 General

- 8.1.1 Vehicles, AVOP holders and pedestrians are permitted on the airport movement area only with authorization from the Regional Airport Manager or designate.
- 8.1.2 No person shall operate a vehicle airside unless the vehicle displays a Territorial or Provincial registration plate, or other means of identification authorized by the Airport Operator, and the vehicle owner has provided a Certificate of automobile liability insurance endorsed to cover airside operations for the vehicle and holds a valid AVOP of the appropriate class.
- 8.1.3 No person shall park an aircraft fuel servicing vehicle within 15 m of the airport terminal building, cargo building, aircraft hangar or any other airport structure designed to house the public that has windows or doors in any exposed walls.
- 8.1.4 No person shall park a vehicle/equipment so as to block fuel servicing vehicle from exiting without reversing.
- 8.1.5 No person shall operate a vehicle within 15 m of an aircraft being fuelled or defueled except for the purpose of servicing that aircraft.
- 8.1.6 Vehicle operators and vehicles, unless authorized by the Regional Airport Manager or designate, shall remain clear of the scene of an airport accident, incident, and aircraft knowingly carrying distinguished visitors.
- 8.1.7 No person shall park a vehicle in any area designated as no parking by a sign.
- 8.1.8 Vehicle operators shall yield the right-of-way to an aircraft that is approaching the apron and is close enough to constitute an immediate hazard and shall refrain from proceeding until the operator can do so safely.
- 8.1.9 Vehicles and equipment shall not be driven over aircraft power cables or service hoses.
- 8.1.10 Vehicles must never overtake a taxiing aircraft.
- 8.1.11 Vehicle/equipment operators shall reduce speed and maintain a careful lookout when near aircraft and corners of buildings or other installations.
- 8.1.12 Vehicle operators shall remain a safe distance from areas affected by jet blast or prop wash from manoeuvring aircraft. Vehicle operators shall not pass in front of or closely behind an aircraft with engines running unless the wheels of the aircraft are chocked or the marshaller waves permission.
- 8.1.13 No vehicle operator will tow an aircraft on an active movement area during hours of darkness unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lights mounted on the towing vehicle and directed at the aircraft being towed.
- 8.1.14 At no time will vehicle operators on the apron drive between an aircraft and the Air Terminal Building when passengers are enplaning or deplaning.
- 8.1.15 Winter weather conditions may result in periods when visibility is poor. Vehicle operators must be aware of weather conditions such as heavy snow, blowing snow, fog, ice fog, ice pellets, etc. which may obscure lights, visual references, pavement markings, airport signage and make movement area surfaces slippery. Ensure extra caution is taken when operating on airside movement areas in these conditions. Slow down at access gates entrances to avoid sliding into them when surfaces become ice covered.

8.2 Vehicle Corridors

- 8.2.1 Vehicle operators shall drive within vehicle corridors, where provided, when operating on the apron.
- 8.2.2 Vehicle corridors are not guaranteed safe routes. Taxiing aircraft and snow removal equipment may at times encroach upon vehicle corridors.
- 8.2.3 If a vehicle corridor or vehicle lane is obscured for any reason, such as faded paint or snow covered, vehicle operators should conform to the designated roadway as closely as possible, and exercise caution.
- 8.2.4 On paved aprons where vehicle corridors are not in place or on gravel aprons, vehicle operators must be aware of aircraft, equipment, pedestrians, and all other vehicles and then only proceed when it is clearly safe to do so.
- 8.2.5 Vehicle operators shall enter and exit vehicle corridors at right angles (90°) and signal their intent using the vehicle's turn signal lights. If the vehicle is not equipped with turn signal lights, the operator shall signal directional intent with approved hand signals.
- 8.2.6 Passing other vehicles within the vehicle corridor is permitted under the following conditions:
- The vehicle being passed is travelling at a speed of 15 km/h or slower;
 - Only one vehicle at a time is permitted to pass (multiple vehicle passing is prohibited);
 - The section of vehicle corridor immediately in front of the vehicle being passed is clear;
 - The applicable speed limit is not exceeded during the pass; and
 - The passing driver exercises caution as the vehicle being passed may turn unexpectedly.
- 8.2.7 Authorized vehicles may operate outside the vehicle corridors in the performance of their duties. These vehicles include but are not limited to:
- Slow-moving equipment operating immediately to the right of the vehicle corridor to allow for regular traffic flow;
 - Snow removal equipment and airport maintenance vehicles; and
 - Emergency response vehicles.
- 8.2.8 Taxiing or parked aircraft may at times encroach on vehicle corridors. If this is the case, you must avoid such aircraft.
- 8.2.9 Vehicles travelling in a connecting vehicle corridor that crosses an aircraft stand or aircraft stand taxi lane have right-of-way over vehicles that are established in the main corridor. The aircraft stand and the aircraft stand taxi lane must be kept clear for the movement of aircraft.
- 8.2.10 Vehicles in the main corridor must stop before the point where the main and connecting corridors intersect. When in doubt, yield to drivers in the connecting corridor.
- 8.2.11 Vehicles approaching a main vehicle corridor from a terminal must yield right-of-way to vehicles already established in the main vehicle corridor.
- 8.2.12 No vehicle operator entering or on an apron shall approach or cross an aircraft movement guideline except:
- At a right angle to the aircraft movement guideline; or
 - Where a designated vehicle crossing point exists, at that crossing point.

8.3 Operation of Vehicle/Equipment Lighting Airside

- 8.3.1 Whenever a self-propelled vehicle is moving from one place to another on the airport movement areas, the warning beacon, headlamps and tail lamps must be in operation. The purpose of this procedure is to indicate to aircraft and other vehicles/equipment that the vehicle is being operated in the active movement area.
- 8.3.2 Headlamps and parking lamps must be operated and left on when the vehicle is engaged in servicing a parked aircraft.
- 8.3.3 Beacons should not be left flashing when a vehicle is stationary within an aircraft stand or the perimeter of a parked aircraft being serviced. Generally, use of flashing beacons can be potentially distracting to taxiing aircraft and downgrades their value as a warning indicator that the vehicle is in motion.

8.4 Vehicle Parking Airside

- 8.4.1 Vehicles must always be backed into the designated airside vehicle parking areas when not in immediate use, with warning beacon and vehicle lights off.
- 8.4.2 Aircraft servicing vehicles and equipment, when not in use, shall be parked on the apron in a designated apron parking area, assigned by the Regional Airport Manager or designate, which is properly marked and provides separation from aircraft using the apron. This is for temporary parking only, while waiting for the aircraft.
- 8.4.3 Equipment and vehicles shall not be parked or left unattended on vehicular routes or aircraft movement areas without authorization from the Regional Airport Manager. No person shall leave a motorized vehicle or equipment on the apron or other movement areas over night without the specific authorization from the Regional Airport Manager or designate.
- 8.4.4 The following actions shall be taken by the vehicle operator in the event a vehicle breaks down on the apron or an airport movement area:
 - The Regional Airport Manager or designate and ATC/FSS/CARS shall be notified;
 - The vehicle operator shall make arrangements for the immediate removal of the vehicle from the movement area; and
 - Advise ATC/FSS/CARS and Regional Airport Manager or designate when the vehicle is off airside.
- 8.4.5 Vehicle repairs shall not be carried out on any movement areas, except for emergency repairs required to remove the vehicle from the movement area. All maintenance activities shall take place on the owners leased property.

8.5 Speed Limits Airside

- 8.5.1 No person on an apron or uncontrolled movement area shall drive vehicles or equipment in excess of 25 km/h, unless indicated otherwise in the Local Airport Traffic Directives. Check Local Airport Traffic Directives (LATDs) for changes. Vehicle/equipment operators shall reduce speed and maintain a careful lookout when near aircraft, corners of buildings or other installations.
- 8.5.2 No person shall drive a vehicle or equipment in excess of 50 km/h on airside service roads, where no speed limit is posted. No person shall drive a vehicle or equipment in excess of 25 km/h while operating in a marked or unmarked vehicle corridor.
- 8.5.3 When a vehicle operator is moving from one aircraft stand to another, speed shall be reduced to 15 km/h.
- 8.5.4 When a vehicle operator is operating within 6 m of an aircraft, speed shall be reduced to 10 km/h.

8.6 Operation of Vehicles on Aprons and Other Uncontrolled Movement Areas

- 8.6.1 Every operator of a vehicle/equipment shall acknowledge and obey instructions received from the Regional Airport Manager or designate.
- 8.6.2 A DA or D AVOP may limit the holder to operate a vehicle on specific area(s) of an airport only. This limitation recognizes that the operator will not require access to airside areas other than that specified on the permit and that the vehicle used in the normal performance of their duties may be equipped with a beacon and not a radio. Radio equipment is not required for vehicles operating on airport apron areas, uncontrolled taxiways or uncontrolled service roads.
- 8.6.3 Vehicle/equipment operators should make every effort to use services and/or perimeter roads to reach airside field locations when roads are available and time permits.
- 8.6.4 No operator of a vehicle shall overtake or pass another vehicle at an active pedestrian crosswalk.
- 8.6.5 Generally, aircraft servicing and aircraft maintenance personnel airside are permitted within aircraft operational stands in the performance of their duties. However, every vehicle operator on an apron shall yield the right-of-way to all pedestrian and passenger traffic at all times.
- 8.6.6 Areas within aircraft operational stands provide for free movement of aircraft service vehicles and equipment performing their duties. Never drive under the wings or tail of an aircraft unless authorized by the pilot-in-command.

NOTE: Unless engaged in servicing the aircraft all vehicles shall remain a minimum of 15 m away from the aircraft. The vehicle operator must know the apron layout, including the location of aircraft operational stands, passenger walkways, helicopter pad(s), designated apron safety area and vehicle parking location(s).

8.7 Operations of Vehicles on Controlled Manoeuvring Areas

- 8.7.1 A rotating/flashing beacon and a radio capable of communications with the Air Traffic Services Unit are required to operate a vehicle on controlled manoeuvring areas.
- 8.7.2 All self-propelled vehicles/equipment operating on controlled manoeuvring areas will be issued a vehicle identification call sign for communication purposes.
- 8.7.3 Vehicles operating on the manoeuvring areas or other remote locations of the airfield for an extended period of time are required to carry a supply of red, road safety flares, sufficient to provide a continuous signal for a minimum of one hour. The carriage of these flares is more critical in the winter when both engine and battery/radio failures are more 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 their supervisor are responsible to ensure that flares are in the vehicle when required, based on operating conditions and work assignment.
- 8.7.4 Vehicle/equipment operators with D AVOP must know the complete layout of airside and be capable of identifying and labelling areas on a drawing.
- 8.7.5 Aircraft being towed or vehicles towing an aircraft must always be in radio contact with the Air Traffic Services Unit before entering and while within the manoeuvring areas.
- 8.7.6 Vehicle/equipment operators will only proceed along routes specified on manoeuvring areas to airfield location unless the vehicle/equipment operator receives alternate advisory/instructions from the ATC/FSS/CARS.
- 8.7.7 D AVOP holders operating airside of an airport must always communicate with the Air Traffic Services Unit before proceeding past the double amber lights that indicate a taxiway and apron intersection,
- 8.7.8 At airports with Instrument Landing Systems (ILS) no vehicle or equipment shall stop or park without permission in the area of the glide path or localizer.

9 Airfield Lighting, Signage and Markings

9.1 General

On an Airport both vehicle and aircraft movements on the ground, are guided by airfield lighting, signage, and pavement and gravel markings, which are different from those used on roads and highways.

This section describes airfield lighting, signs, and pavement and gravel markings most commonly used at NWT Airports, which an airside vehicle operator is required to know. In addition, other traffic control devices may be used at some airports and will be described as required, in the Local Airport Traffic Directives (LATDs).

9.2 Airfield Lighting and Visual Aids

Every vehicle operator must know the meaning of airfield lights to avoid entering areas where they are not permitted to be, and as a guide to vehicle movement when within the movement areas of the airport.

NOTE: Airside lighting and visual aids can be activated by Pilots from their aircraft (if ARCAL lighting is in effect) or can be turned on manually by ATC/FSS/CARS.

Blue lights are used to mark the edges of aprons and taxiways.

Double Blue lights are used to mark the intersection of two or more taxiways and intersection of taxiways with runways.



Double Amber (yellow) lights are used to mark an apron/taxiway intersection.

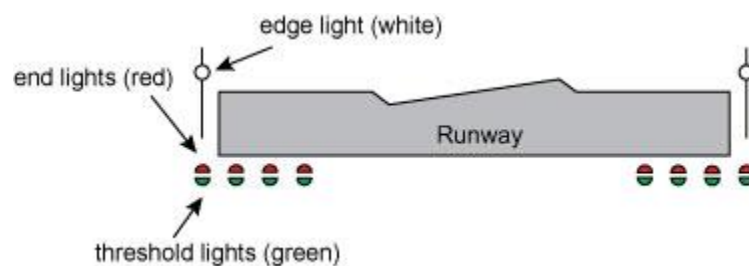


NOTE: DA AVOP holders must not drive past double amber lights, from an apron onto a taxiway; unless the taxiway is “uncontrolled” meaning it does not require advisory/permission from an Air Traffic Services Unit (ATSU) to proceed onto the taxiway.

White lights are used to mark runway edges (sides)



Threshold/Runway End Lights, are used to mark the runway ends and are double sided lights; one half shows red and one half shows green. The red faces the runway and green faces the approach to runway.



Aerodrome Beacon is a rotating or flashing white light mounted on a tower or a building and provides pilots with a visual identification of an airport during periods of reduced visibility or darkness.



Runway Guard Lights (RGLs) consist of a pair of elevated flashing yellow lights installed on either side of a taxiway. RGLs are the first line of defense against an unintended incursion of an active runway by an aircraft or vehicle. They are positioned at each side of a taxiway at the taxi-holding position marking where the taxiway is about to join a runway; both aircraft and vehicles are required to wait at this point until given clearance by the Air Traffic Services Unit to proceed. They are sometimes referred to as 'wig-wags'. They must be in operation whenever Runway Visual Range (RVR) is less than 1200 meters. RGLs are installed at airports that have a Reduced Visibility Operations Plan (RVOP).



Runway Identification Lights (RILS) These are provided at aerodromes where terrain may prevent the installation of approach lights, or where unrelated non-aeronautical lights or the lack of daytime contrast reduces the effects of approach lights. They consist of a pair of strobe (flashing) lights, one on each side of the runway, located in line with the runway threshold lighting. They provide pilots with rapid and positive identification of the approach end of a particular runway.



NOTE: The minimum distance an airside vehicle operator with a D permit can come to a RILS, PAPIs or VASIS is 2 metres (6 feet).

Precision Approach Path Indicator (PAPIs) are a series of lights beside a runway that indicate to the pilot if the aircraft is too high or too low during the landing phase of flight.





NOTE: The minimum distance an airside vehicle operator with a D permit can come to a RILS, PAPIS or VASIS is 2 metres (6 feet).

Visual Approach Slope Indicator System (VASIS) are a series of lights beside a runway that indicate to the pilot if the aircraft is too high or too low during the landing phase of flight.



NOTE: The minimum distance an airside vehicle operator with a D permit can come to a RILS, PAPIS or VASIS is 2 metres (6 feet).

Wind Direction Indicator (WDI) (wind sock) is normally a red or orange and white, cone shaped fabric, 3.6m long, that provides pilots a general indication of wind speed and wind direction. They are located off the side of a runway and depending on the airport runway length, will have a minimum of one and possibly two wind socks for each runway. They are required to be illuminated when intended for use during hours of darkness.



Ceiling Projector is a light usually located airside that directs a beam of light towards the sky, used by the Air Traffic Services Unit to measure the height of the cloud base, commonly referred to as a “ceiling”.



Runway Approach Lighting Systems Depending on the type of runway an airport has, such as a non-instrument runway, a non-precision runway or various categories of precision approach runways, an approach lighting system will be installed off the end of a runway. These systems range from a Simple Approach Lighting System, often referred to as ODALS, to the more complex Precision Approach Lighting Systems, referred to as MALSR or SSALR. Runway Approach Lighting Systems allows the pilot to visually identify the runway environment and align the aircraft with the runway upon arriving at a prescribed point on an approach.



Apron Floodlighting is located in the vicinity of airport aprons to provide adequate illumination to all apron service areas. They are usually mounted on a lighting pole or on the top or sides of buildings or Air Traffic Service Unit towers. When mounted on a pole, the pole is capable of being lowered, so the lamps may be changed when required.



Aircraft Radio Control of Aerodrome Lighting (ARCAL) is an electronic unit that allows a pilot to turn on airfield lighting remotely from the aircraft when the Air Traffic Services Unit is not operational. The ARCAL receivers are located in Airport Field Electrical Centers (FECs).



9.3 Navigational Aids

Depending on what type of runway an airport has, there may be navigational aids located on the airport that assist an aircraft in landing, departing or staying on course under varying weather conditions. Operating vehicles or equipment near navigational equipment may affect the signal on some types of electronic equipment such as Instrument Landing Systems (ILS). For this reason vehicle/equipment operators must get approval from the Air Traffic Services Unit prior to entering into these areas.

VHF Omnidirectional Radio Range (VOR) is a type of short-range radio navigation system for aircraft, enabling aircraft to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons, with a receiver unit.



Glide Path is a component of an airport Instrument Landing System (ILS) and provides vertical guidance on the approach path of an aircraft when landing. It is usually located on one side of the runway at the touchdown zone.



NOTE – Permission must be received from the Air Traffic Services Unit prior to entering the active area of the Glide Path. This will allow for the navigational aid to be turned off prior to vehicle/equipment entry into the area.

Localizer is the second component of an airport Instrument Landing System (ILS) and provides lateral guidance to an aircraft on approach to a runway. It is usually located off the end of a runway and consists of an antennae array.



NOTE – Permission must be received from the Air Traffic Services Unit prior to entering the active area of the Localizer. This will allow for the navigational aid to be turned off prior to vehicle/equipment entry into the area

9.4 Airfield Signage

Signs used on the manoeuvring areas 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 manoeuvring areas. These signs are normally mounted on the left, on the right, or on both sides of a runway or taxiway according to requirements. Airside guidance signs are illuminated at airports which are used at night or in low visibility.

Mandatory Signage is signage that shall be obeyed. They have white characters on a red background and similar to highway signage, this means STOP. Permission must be received from the Air traffic Services Unit to proceed beyond mandatory signs. They are located 15 m to 20 m from the edge of the manoeuvring surface. Mandatory signage includes the following:

- Runway Designator signs;
- Category I, Category II, Category III or Category II/III Holding position signs; and
- No Entry signs.



Runway Designator

Holding Position

Location/Runway Designator

For airports within area of compass unreliability, the **runway designation sign** will include a letter “T” after the runway designator numbers, to indicate the “true north” heading of the runway rather than the “magnetic north” heading of the runway.



Location

Runway Designator

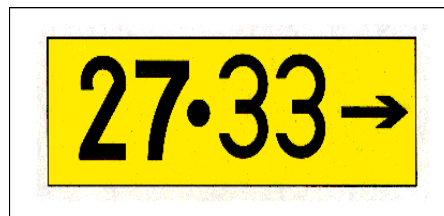
Information signs include direction signs, location signs, destination signs and runway distance remaining signs.

Directional signs (black on yellow) shall have a letter or a letter number combination message, identifying the route plus an arrow or arrows appropriately oriented.



(Directional signs combined with location sign)

Destination signs (black on yellow) shall have a letter, a letter number combination or a number message, identifying the destination plus an arrow indicating the direction to proceed. They include information to inbound and outbound aircraft.



Destination Sign for Common Taxiing Route to Two Runways



Inbound Destination Sign

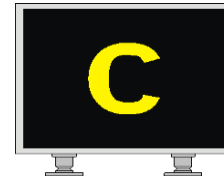
Location signs (yellow on black) contain characters that identify the location; most commonly a **taxiway** or other movement area the aircraft or vehicle is on or is entering and shall contain a letter or letter number combination. It shall **not** contain arrows. Taxiways are designated by letters. Runways are designated by numbers.



Location/Mandatory Sign



Location Sign



Location Sign

Distance to Go signs are usually found at airports with military facilities but are becoming increasingly popular at civilian airports. They are located along the side of a runway and contain white numbers on a black background. They contain a single digit that represents how many thousand feet of runway remain. A distance to go sign that shows a 5 means the pilot has 5000 feet of runway remaining.



Distance to Go Sign

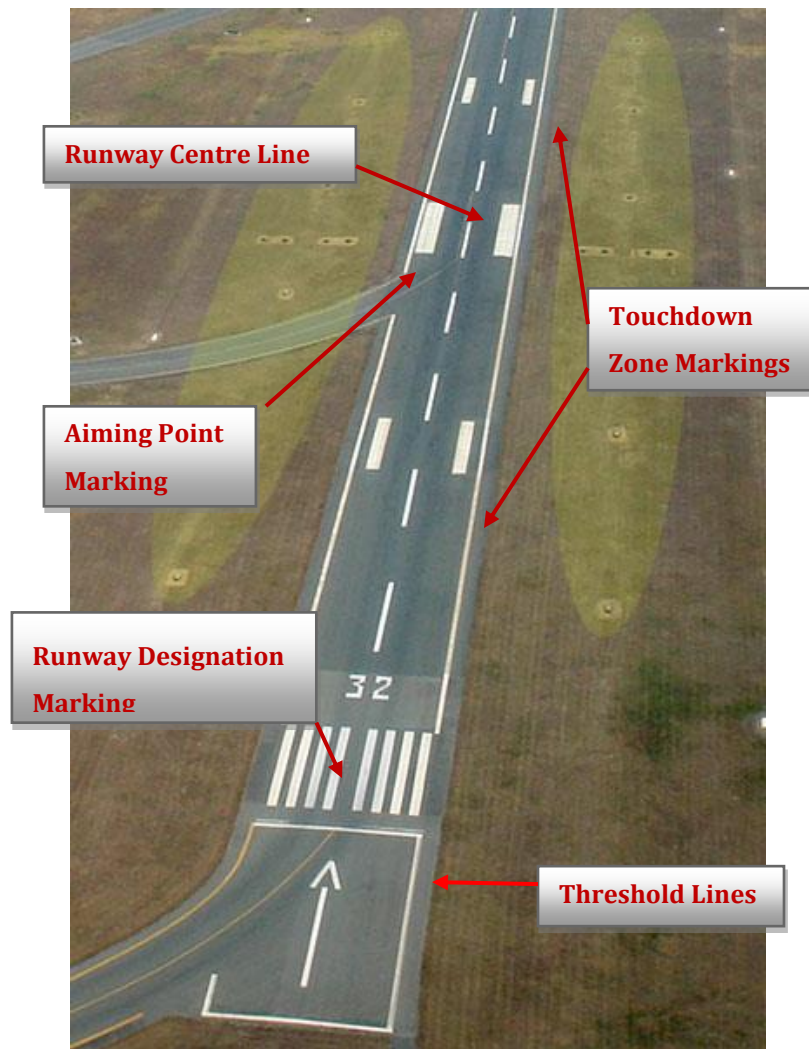
Airside Service Roads Signs are signs used on Aprons and Airside Service Roads and are generally the same signs as those used on territorial roads. All Vehicle Operators on Airside Service Roads are required to comply with these signs.

9.5 Pavement Markings

Airfield pavement markings provide information and guidance for both aircraft and vehicles when operating on airside movement areas with paved surfaces. On aprons and taxiways, yellow markings commonly guide aircraft and white markings provide guidance for vehicles. Runway markings are white.

Runway Markings usually consist of a Runway Centerline, Threshold Markings, Aiming Point Markings and Touchdown Zone Markings. Sometimes a Runway Side Stripe Marking is applied down the edge of the runway. Runway markings are white in colour and provide valuable information to pilots. These markings can be applied in solid blocks or in a striped pattern.

Runway Designation Marking is a two-digit number marking, located near the end of a runway, identifying that runway's number. The numbers also align with the orientation of the runway to a magnetic compass or in areas of compass unreliability, to true north. Runway Designation Markings are white in colour.



Runway Markings

Aircraft Movement Guidelines are provided to ensure aircraft travel on airport movement areas is done safely. The nose wheel of the aircraft is centered on the line to ensure that the main wheels of the aircraft are on pavement and that the wings will not contact known obstructions (buildings, light stands, etc.). Vehicles operating on airport aprons may only cross aircraft movement guidelines at right angles. Aircraft Movement Guidelines are yellow in colour. Vehicles and equipment must not be left in the vicinity of Aircraft Movement Guidelines.

Taxi-Holding Position Marking is located not less than 60 m from edge of runway, consisting of two solid and two broken yellow lines across the taxiway with the broken lines closest to runway. If the airport has an ATC or FSS, permission must be received to drive a vehicle beyond Taxiway Hold Lines. If the airport has a CARS station the vehicle operator will hold short at this location when CARS advises there is aircraft traffic intended for the runway. They are yellow in colour.



Taxiway Centerline Marking is a continuous line providing guidance to aircraft, from the runway center line, along a taxiway, to a point on the apron where aircraft stand markings begin. Taxiway Centerline Marking is yellow in colour.

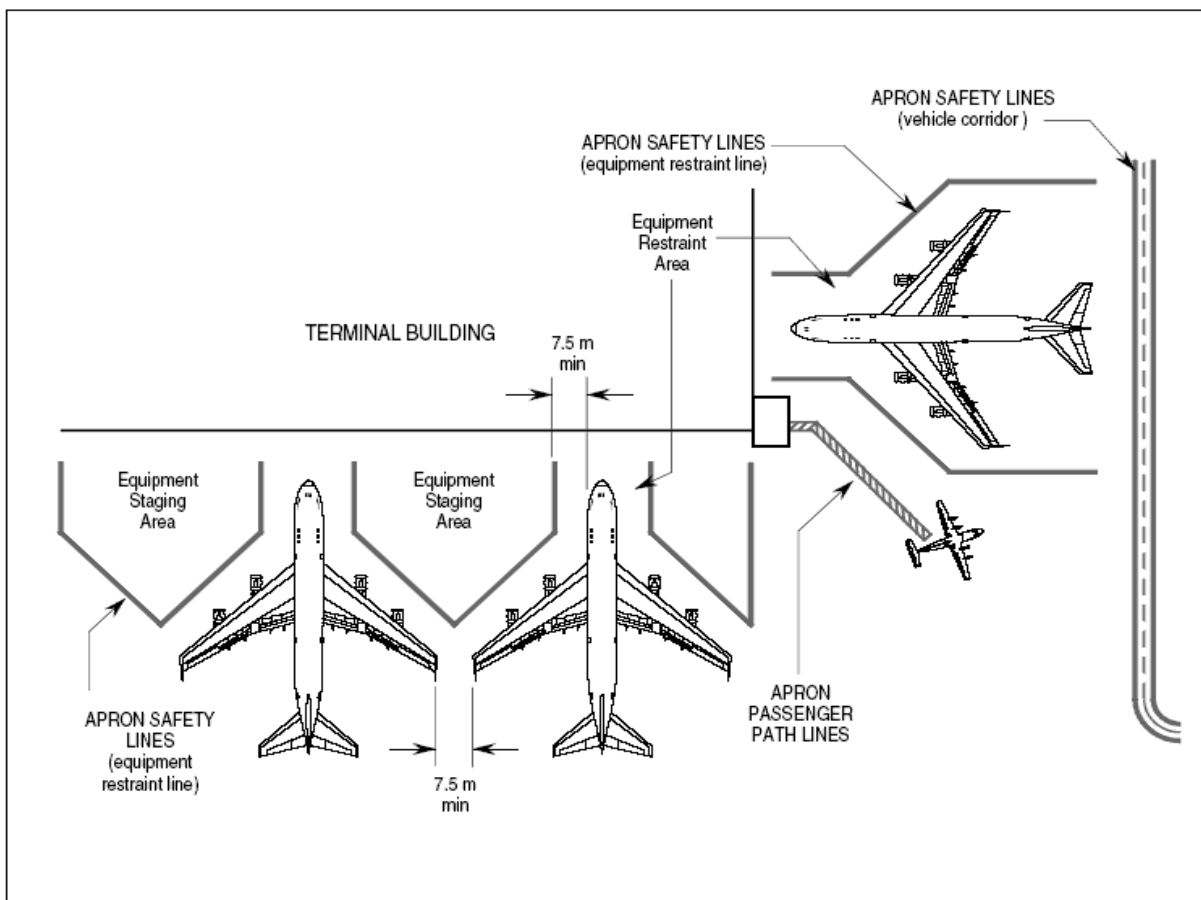
Aircraft Stand Taxilane Markings provide guidance for aircraft from the Taxiway Center Line to a point on the apron where Aircraft Stand Markings begin. Aircraft Stand Taxilane Markings are yellow in colour.

Aircraft Stand Markings may be provided for designated aircraft parking positions on an apron. Aircraft stand markings should include stand identification, lead-in line, turn bar, turning line, alignment bar, stop line and lead-out line as required for apron aircraft parking operations. Aircraft Stand markings are yellow in colour. Aircraft Lead-In, Turning and Lead-Out Lines are a continuous line between a Taxiway Centre Line and an aircraft stand or parking position. No Lead-Out line will be shown if the aircraft are pushed back out of the aircraft stand or parking position by a service tug. The aircraft nose wheel is centred on these lines to guide the aircraft into and out of the parking position without hitting other parked aircraft or obstructions. These markings are yellow in colour.

Apron Safety Lines may be provided on a paved apron as required by parking configurations and ground facilities. The apron safety lines are located to define areas intended for use by ground vehicles and other aircraft servicing equipment to provide safe separation from aircraft. Apron safety lines may also include wing tip clearance lines and service road boundary lines. Apron Safety Lines are white in colour.

Apron Passenger Path Lines may be provided where passengers are required to walk on an apron between the aircraft stand and the air terminal building. Apron Passenger Path Lines consist of two parallel lines with diagonal hatching between them, giving a zebra stripe appearance. No vehicle shall overtake or pass another vehicle at or within 30 m of an Apron Passenger Path Line. Apron Passenger Path Lines are white in colour.

Vehicle Corridor Markings may be provided on a paved apron. At airports with designated Vehicle Corridors, all vehicles shall operate within these Vehicle Corridors when moving about the apron. Vehicle operators shall use the Vehicle Corridor when transiting more than one gate. Authorized vehicles may operate outside the Vehicle Corridors in the performance of their duties. Vehicle corridor markings are solid lines spaced 7.5 m apart, with a broken line in between, to provide guidance to vehicle and equipment operators. Vehicle Corridor markings are white in colour.



9.6 Gravel Markers

Gravel runways, that have similar surface colours to surrounding terrain, may require edge markers and approach markers to assist pilots in identifying the runway area from the air. A variety of markers are used on gravel runways.

NOTE: The double amber lights at the taxiway/apron intersection can be used as a reference point to indicate a holding position for a gravel runway where a permit holder needs to get advisory/permission for ATSU.

Gravel Runway Edge Markers may be installed along each side of the runway. These markers will be incorporated at each runway edge light location. The markers are conical in shape and may be orange or orange and white in colour. They are lightweight and frangible mounted and must be sufficiently low enough to preserve clearance of aircraft propellers and should have a height not exceeding 50 cm. Some markers may be anchored to prevent them blowing around or away.

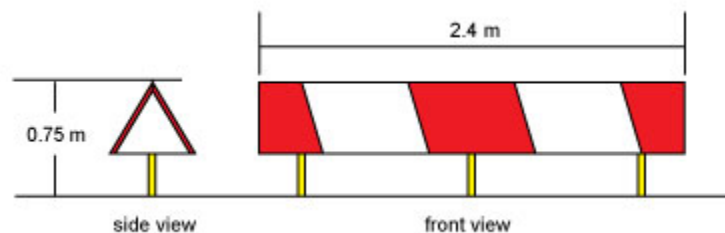


Threshold Marker Boards are international day glow orange wooden markers placed on either side of threshold.



Approach Marker Boards are three orange or orange with white stripes, wooden markers placed 150 m apart along the runway centreline. The first approach marker board is placed 150 m from the threshold.

Runway Approach Marker Boards





Taxiway Edge Markers may be provided where there is no taxiway edge lighting. A taxiway edge marker shall be retro-reflective blue, and be light weight and frangible. Their height shall be low enough to preserve clearance for aircraft propellers.

10 Radiotelephone Procedures

All persons requiring a D AVOP permit will have to pass an Industry Canada Restricted Operator Certificate with Aeronautical Qualification (ROC-A) test, in order to receive their radio licence. The Industry Canada study guide is available at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01397.html> and is listed as RIC-21.

10.1 Radiotelephone and Speech Transmission Techniques

In the aviation industry standard phraseology has been developed through years of practice to transmit clear concise messages most efficiently and without misunderstanding, using the fewest words.

- 10.1.1 Keep rate of speech constant, neither too fast, nor too slow. Refer to the radio manufacturer's manual for the recommended distance from the mouth to hold the microphone.
- 10.1.2 Listen first to ensure that you will not interrupt another transmission, then depress the "press to talk" (PTT) switch before beginning to speak and keep it depressed for the entire transmission. Avoid clicking PTT switch on and off. When the transmission is finished, release the PTT switch immediately.

NOTE: A station which has distress, urgency or safety communications to transmit is entitled to interrupt, at any time, a transmission of lower priority.

- 10.1.3 Speak plainly and distinctly to prevent running consecutive words together. Do not shout or accentuate syllables artificially.
- 10.1.4 Use standard procedure words and phrases, standard airport terminology and the ICAO Phonetic Alphabet.
- 10.1.5 Due to obstructions (i.e. metal buildings, hills, etc.), there may be some areas on the airport where signals are not received. These areas are referred to as blind spots and should be indicated in the Local Airport Traffic Directives airport site plan.

10.2 Communicating with Air Traffic Control/Flight Service Station

- 10.2.1 Air Traffic Control (ATC) and Flight Service Stations (FSS) provide positive vehicle control service on airports therefore all vehicle/equipment operators are always required to obtain permission before proceeding past the apron and taxiway intersection, and/or entering within 60m (200 ft.) from the side of a paved runway.
- 10.2.2 Vehicle/equipment operators when approaching the runway from the pre-threshold area are required to obtain permission 150m (500 ft.) from threshold of a runway before proceeding onto the manoeuvring area and maintain radio communication with ATC or the FSS when in this area.
- 10.2.3 All vehicle/equipment operators must monitor the radio at all times when on the manoeuvring areas. Vehicle operators are not allowed to leave a vehicle radio unattended while in the manoeuvring area, except with the specific permission of ATC or the FSS or the radio is equipped with an external speaker and the operator can answer in timely manner.
- 10.2.4 All vehicle/equipment operators will report to ATC or FSS only after completion of an activity on the manoeuvring area. For example, vehicle/equipment operators will only report being off of a runway after the vehicle operator is at least 60 m (200 ft.) from edge of runway paved surface, and not while still in the process of leaving the manoeuvring area.
- 10.2.5 Vehicle/equipment operators must ensure they fully understand and comply with all instructions given by ATC or the FSS before entering an aircraft manoeuvring area or crossing an active runway.
- 10.2.6 In addition to ATC or a FSS giving permission via radio to proceed onto or within the manoeuvring area, vehicle/equipment operators must visually check to ensure the operator will not interfere with any aircraft on the intended route or approaching the airport.
- 10.2.7 Vehicle/equipment operators must always use the correct radio call sign for the vehicle they are operating, in every radio transmission.
- 10.2.8 When non-radio-equipped vehicles and equipment are operating in groups or fleets with a radio-equipped vehicle, they shall be under the control of a qualified employee responsible for requesting and acknowledging all ATC or FSS instructions.
- 10.2.9 Before entering onto manoeuvring areas, the vehicle/equipment operator shall contact ATC/FSS for permission to proceed to a specific location by a specified route (only if a specific route is required). The vehicle/equipment operator shall acknowledge all instructions from the ATC/FSS as understood or request that the instructions be repeated if not understood. The vehicle/equipment operator shall proceed only along the specified route to the specified location unless the vehicle operator receives alternate instructions.

10.2.10 Requests for permission to proceed onto the manoeuvring area shall include:

- The vehicle identification
- The vehicle's current location
- The intended activity/work to be performed while in the manoeuvring area and/or specific destination and intended route (only if a specific route is required) (otherwise the ATC/FSS will normally specify the route to be followed)

EXAMPLE:

YELLOWKNIFE RADIO THIS IS STAFF 49 ON APRON ONE. REQUEST PERMISSION ON RUNWAY 16/34 VIA TAXIWAY A TO PERFORM AN AIRFIELD LIGHTING INSPECTION.

STAFF 49, THIS IS YELLOWKNIFE RADIO, NO REPORTED TRAFFIC, PROCEED RUNWAY 16/34 VIA TAXIWAY A, REPORT WHEN OFF

YELLOWKNIFE RADIO, THIS IS STAFF 49, ROGER

10.2.11 When an operator is instructed to hold short of a runway or is waiting permission to cross, or proceed onto a runway the operator shall hold the vehicle 60m (200 ft.) from the nearest side of the runway or behind the solid yellow line on the taxiway so marked. **Vehicle/Equipment Operators shall read back "hold short" instructions to the ATC/FSS.**

EXAMPLE:

NORMAN WELLS RADIO, THIS IS STAFF 31, REQUEST PERMISSION ON RUNWAY 10/28 FOR RUNWAY INSPECTION

STAFF 31, THIS IS NORMAN WELLS RADIO, NEGATIVE HOLD SHORT RUNWAY 10/28, AIRCRAFT INBOUND

NORMAN WELLS RADIO, THIS IS STAFF 31, HOLDING SHORT RUNWAY 10/28

10.2.12 When instructed to leave the runway vehicle operators shall acknowledge instructions and proceed to a taxiway holding position or to a safe position off to the side of the runway at least 60m (200 ft.) from the nearest side of the runway. Once in the holding position, vehicle operators shall inform ATC/FSS that they are off the runway and give their exact position.

EXAMPLE:

GRADER 152, THIS IS INUVIK RADIO, AIRCRAFT INBOUND IN 5 MINUTES, EXIT RUNWAY 06/24, REPORT WHEN OFF

INUVIK RADIO THIS IS GRADER 152, ROGER,

INUVIK RADIO THIS IS GRADER 152, OFF RUNWAY 06/24 ON TAXIWAY DELTA

NOTE: Vehicles/equipment may have to operate within 60m (200 ft.) from the runway. When this happens, the operator must receive permission from the ATC/FSS under the same conditions as being on a manoeuvring area. No vehicles/equipment may remain within 60m (200 ft.) from the side of the runway if aircraft are landing or taking off.

10.3 Radio Communication Failure and/or Vehicle/Equipment Failure at an Airport with ATC/FSS/CARS

10.3.1 If the vehicle/equipment breaks down, the operator shall immediately notify the ATC/FSS/CARS of location and difficulty and request assistance.

10.3.2 If the radio fails while the vehicle is in the manoeuvring area, turn the vehicle to face ATC/FSS/CARS and flash the headlights on and off. Then immediately vacate the manoeuvring area.

NOTE: In the course of moving from the manoeuvring area the vehicle operator must hold short of each intervening runway and receive instruction (by flashing runway lights on and off) to proceed before crossing the runway (if the airport has more than one runway).

NOTE: A vehicle operator may use a cell phone to communicate a radio failure with the ATC/FSS/CARS.

10.3.3 If the vehicle/equipment radio and vehicle both fail while in the manoeuvring area, light and place red road flares approximately 30m (100 ft.) ahead of and behind the vehicle in line parallel to the nearest runway or taxiway as a warning to aircraft. If the flares are not likely to be seen from the ATC unit or the FSS due to snowbanks or other intervening obstructions light, then place one or more flares near the vehicle where they may be clearly visible from the ATC unit or the FSS. Stay with the vehicle. In adverse weather conditions your vehicle may provide the best protection until help arrives.

10.3.4 **The blinking on and off of runway edge lights is a warning signal for all vehicles to leave the runway immediately.**

10.4 Communicating with Community Aerodrome Radio Station (CARS)

10.4.1 CARS provide a communication service to vehicles and aircraft. The process for communicating with CARS varies from airports with ATC/FSS because the CARS do not have positive vehicle control. Vehicle/equipment operators shall always communicate their intentions before proceeding past the apron and taxiway intersection, and/or before entering within 45 m (150 ft.) from the side of a **gravel runway**.

10.4.2 Vehicle/equipment operators shall always communicate their intentions before proceeding past the apron and taxiway intersection and entering within 60 m (200 ft.) from the side of a **paved runway**.

10.4.3 CARS will acknowledge the transmission and explain the air traffic situation. Based on this information, the vehicle operator must decide if it is safe to go on the runway or not. The vehicle operator then will advise the CARS of his/her intentions and proceed accordingly.

10.4.4 If the vehicle operator is advised of an aircraft taxiing for takeoff or inbound to land, they shall hold short or get off the active runways and taxiways. Advise the CARS of intentions and report **“off” or “Holding Short”**.

10.4.5 Vehicle/equipment operators, when approaching the pre-threshold area(s), are required to advise the CARS operator when they need to operate within 150m (500 ft.) from pre-threshold of a runway before proceeding onto that area and maintain radio communication with CARS when in that area.

- 10.4.6 All vehicle/equipment operators must monitor the radio at all times when on the manoeuvring area. Vehicle Operators are not allowed to leave a vehicle radio unattended while on the manoeuvring area. However, in some circumstances vehicle operators may leave the vehicle/equipment if they have a portable radio on the Mandatory Frequency (MF) or the radio installed in vehicle/equipment is equipped with an external speaker and the operator can answer in timely manner.
- 10.4.7 It is mandatory that all vehicle/equipment operators advise the CARS when they have exited the manoeuvring area.
- 10.4.8 All vehicle/equipment operators shall advise CARS only after completion of an activity on the manoeuvring area. For example, vehicle/equipment operators will only report being off of a runway after they are at least 45 m (150 ft.) from side of a gravel runway surface or 60 m (200 ft.) from the side of a paved runway surface, and not while still in the process of leaving the manoeuvring area.
- 10.4.9 Vehicle/equipment operators must ensure they fully understand information received from CARS before entering an aircraft manoeuvring area or crossing an active runway.
- 10.4.10 In addition to communicating the vehicle/equipment operator's intentions to proceed onto a runway or within manoeuvring areas to the CARS, vehicle/equipment operators must visually check to ensure they will not interfere with any aircraft on the intended route or approaching the airport.
- 10.4.11 Vehicle/equipment Operators must always use the correct radio call sign for the vehicle they are operating. Call signs should be used at least when initial contact is being established, and again when the communication is concluded.
- 10.4.12 When non-radio-equipped vehicles and equipment are being escorted in a group or fleets, they shall be under the control of a radio equipped vehicle and qualified employee responsible for requesting and acknowledging all radio communications with the CARS.
- 10.4.13 Before proceeding onto manoeuvring areas, the vehicle/equipment operator shall contact CARS and advise them of his/her intentions to proceed on to the runway, vehicle/equipment specific location and specified route to be used (only if a specific route is required). The vehicle/equipment operator shall acknowledge all information from the CARS as understood or request that the information be repeated if not understood.
- 10.4.14 Vehicle/equipment operators advising CARS of intentions to proceed into the manoeuvring area shall include:
- The vehicle identification
 - The vehicle's current location
 - The intended activity/work to be performed while in the manoeuvring area and/or specific destination and intended route (only if a specific route is required).

EXAMPLE:

FORT SIMPSON AIRPORT RADIO, THIS IS TRUCK 85, ON THE APRON PROCEEDING ONTO RUNWAY 14/32 VIA TAXIWAY A FOR PLOWING

TRUCK 85, THIS IS FORT SIMPSON AIRPORT RADIO, NO REPORTED TRAFFIC

FORT SIMPSON AIRPORT RADIO, THIS IS TRUCK 85, PROCEEDING ONTO RUNWAY 14/32, WILL ADVISE WHEN OFF

EXAMPLE:

FORT SMITH AIRPORT RADIO, THIS IS STAFF 24, ON THE APRON PROCEEDING ONTO RUNWAY 12/30 VIA TAXIWAY A FOR RUNWAY INSPECTION FOR THE NEXT 10 MINUTES

STAFF 24, THIS IS FORT SMITH AIRPORT RADIO, TRAFFIC, AIRCRAFT TAXIING FOR DEPARTURE RUNWAY 12, ADVISE INTENTIONS

FORT SMITH AIRPORT RADIO, THIS IS STAFF 24, HOLDING SHORT OF RUNWAY 12/30 ON THE APRON

Note: the words “holding short” shall be used so that there is no misunderstanding of your intentions

10.4.15 When advised by CARS of an inbound aircraft the vehicle operators shall acknowledge the information, advise intentions, leave the runway and proceed to the apron or a taxiway holding position or to a safe position off to the side of the runway at least 45m (150 ft.) from the nearest edge of a gravel runway and 60m (200 ft.) from the nearest edge of a paved runway. Once in the holding position, vehicle operators shall inform CARS that they are off the runway and give their exact position.

EXAMPLE:

TRUCK 82, THIS IS HAY RIVER AIRPORT RADIO, TRAFFIC, AIRCRAFT ESTIMATING RUNWAY 32 IN FIVE MINUTES ADVISE INTENTIONS

HAY RIVER AIRPORT RADIO, THIS IS TRUCK 82, PROCEEDING OFF RUNWAY 14/32 VIA TAXIWAY A

TRUCK 85, THIS IS HAY RIVER AIRPORT RADIO, REPORT WHEN OFF

HAY RIVER AIRPORT RADIO, THIS IS TRUCK 82, OFF RUNWAY 14/32, ON THE APRON

10.5 Radio Communication Failure and/or Vehicle/Equipment Failure at an Airport with CARS

10.5.1 If the vehicle/equipment breaks down the operator shall immediately notify the CARS of the location and difficulty and request for assistance.

10.5.2 If the radio fails while the vehicle is in the manoeuvring area, turn the vehicle to face the CARS and flash the headlights off and on. Then immediately vacate the manoeuvring area.

NOTE: In the course of moving from the manoeuvring area the vehicle operator must hold short of each intervening runway and verify no aircraft are ready for takeoff or on approach for landing before proceeding across the runway.

10.5.3 If the vehicle/equipment radio and vehicle both fail while in the manoeuvring area, light and place red road flares approximately 30m (100 ft.) ahead of and behind the vehicle in line parallel to the runway or taxiway as a warning to aircraft. If the flares are not likely to be seen from the CARS due to snowbanks or other intervening obstructions light, then place one or more flares near the vehicle where they may be clearly visible from CARS. Stay with the vehicle. In adverse weather conditions your vehicle may provide the best protection until help arrives.

10.5.4 **The blinking on and off of runway lights is a warning signal for all vehicles to leave the runway immediately.**

Note: Vehicles/equipment may have to operate within 45m (150 ft.) from the side of a gravel runway or 60m (200 ft.) from the edge of a paved runway. When this happens the vehicle/equipment operator must not remain within 45m (150 ft.) from the side of a gravel runway or 60m (200 ft.) from the edge of a paved runway if aircraft are landing or taking off.

10.6 Radiotelephone Procedures if CARS/FSS/ATC is Closed

10.6.1 Communications between pilots and vehicles/equipment operators will be restricted to the provision of information related to vehicle/equipment operation and aircraft movement surface condition report (if qualified to complete and report AMSCR). Vehicle/equipment operators will not communicate any other operational information to pilots. During any period where CARS/FSS/ATC is not available (e.g. less than 24 hour operation) the driver of a radio equipped vehicle/equipment shall:

- When possible, conduct a radio test;

- Prior to entering on the manoeuvring area, broadcast position and intentions on the mandatory frequency (MF) twice;
- When on the manoeuvring area continuously monitor the mandatory frequency;
- Visually check to ensure there are no aircraft arriving or departing;
- When requested provide the location of other known ground traffic on the manoeuvring area;
- When requested provide aircraft movement surface condition reports, only if qualified to do so;
- Give way to aircraft at all times;
- Stay alert and keep a lookout for arriving or departing aircraft;
- Leave the runway as soon as aircraft appear;
- Leave the runway if an aircraft makes a low pass; and
- Broadcast on the MF that the permit holder is off the manoeuvring area upon exiting.

NOTE: If CARS opens while the operator is out on the runway, the operator is to establish positive communication with CARS and inform them that they are on the manoeuvring area and intentions.

10.7 Phraseology If CARS/FSS/ATC is Closed

10.7.1 The following are examples of the phraseologies used to notify aircraft in the area of the airport, of the vehicle/equipment operator's intentions and typical responses to the call from aircraft, if CARS/FSS/ATC is closed.

10.7.2 **All Vehicle/Equipment Operators shall blind broadcast their intentions twice on the mandatory frequency to ensure message is clear and understood.**

10.7.3 **All vehicle/equipment operators shall wait for one minute after transmitting blind broadcast intentions prior to proceeding on to the airport manoeuvring area to give aircraft in the vicinity time to respond.**

NOTE: Insert **your** airport name where the example shows Norman Wells; **your** vehicle/equipment call sign where the example shows Staff 21 or Grader 150 and **your** runway numbers where the example shows runway 13-31.

EXAMPLES: Airport vehicle/equipment operators advising intentions to proceed onto the manoeuvring areas

NORMAN WELLS AIRPORT TRAFFIC, THIS IS STAFF 21; PROCEEDING ON TAXIWAY AND RUNWAY 10/28 FOR AIRFIELD INSPECTION (repeat two times).

NORMAN WELLS AIRPORT TRAFFIC, THIS IS GRADER 150; PROCEEDING ON TAXIWAY AND RUNWAY 10/28 FOR SNOW REMOVAL (repeat two times).

EXAMPLE: Aircraft call up

NORMAN WELLS AIRPORT TRAFFIC, THIS IS FOXTROT ALPHA BRAVO CHARLIE, TEN MILES NORTHWEST OF NORMAN WELLS INBOUND FOR LANDING RUNWAY 10 IN 8 MINUTES, CONFLICTING TRAFFIC THIS IS FOXTROT ALPHA BRAVO CHARLIE ON ONE TWO THREE DECIMAL TWO.

EXAMPLE: Airport vehicle/equipment operator (on the runway), response to the aircraft call up.

AIRCRAFT IN VICINITY OF NORMAN WELLS, THIS IS GRADER 150, AIRPORT MAINTENANCE AT NORMAN WELLS, ON RUNWAY 13-31. WILL ADVISE WHEN EQUIPMENT IS OFF RUNWAY.

AIRCRAFT IN THE VICINITY OF NORMAN WELLS, THIS IS STAFF 21, ON RUNWAY 10/28. WILL ADVISE WHEN ALL EQUIPMENT IS OFF RUNWAY.

Note: Do not try to remember the call sign of aircraft, use the phrase “aircraft in vicinity of airport” at all times.

EXAMPLE: Provision of Aircraft Movement Surface Condition Report (AMSCR) to an Aircraft in the Vicinity (only if qualified to complete and report AMSCR)

AIRCRAFT IN THE VICINITY OF NORMAN WELLS, THIS IS STAFF 21. AIRCRAFT MOVEMENT SURFACE CONDITION REPORT FOR RUNWAY 10/28, 100 PERCENT DRY SNOW ¼ INCH, WINDROWS BOTH SIDES AND LENGTH OF RUNWAY 2 FEET HIGH, 5 FEET FROM EDGE LIGHTS.

10.8 Standard Procedures and Words

10.8.1 While it is not practical to develop precise phraseology for all radiotelephone procedures, slang expressions such as “OK”, “OVER AND OUT”, “TEN-FOUR”, BREAKER BREAKER”, “COME IN PLEASE”, etc. should not be used. The words “CLEAR” and “REPEAT” are also **not** allowed to be used as they may cause confusion. The following words and phrases should be used where applicable:

Word or Phrase	Meaning
ACKNOWLEDGE	Let me know that you have received and understood this message.
ADVISE INTENTIONS	“Tell me what you plan to do.”
AFFIRMATIVE	An expression used in radio communication meaning “Yes.”
CONFIRM	“Have I received the following” or “Did you receive the message?”
CORRECTION	An error has been made in this transmission (or message indicated). The correct version is....
HOLD SHORT	Do not proceed or do not proceed as requested. The instruction to “HOLD SHORT” requires a mandatory read back.
HOW DO YOU READ?	What is the readability of my transmission?
I SAY AGAIN	An expression used in radio communication meaning “I repeat for clarity or emphasis.”
NEGATIVE	No, or permission not granted, or that is not correct, or I do not agree.
OUT	This conversation is ended and no response is expected. (Normally used only under poor communication conditions.)
OVER	My transmission is ended and I expect a response from you. (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 of your last transmission.
SAY AGAIN	Repeat all, or the following part, of your last transmission. (Do not use the word “Repeat”.)

STANDBY

Wait and listen, will call you again.

10.9 Call up Procedures

10.9.1 A “call-up” is a procedure used to establish two-way communication between an airport vehicle/equipment operator and an ATC, a FSS, CARS, or an aircraft. Before making a “call-up”, listen out to avoid cutting into a transmission from other users. Proceed only when others are not using the frequency.

10.9.2 A call-up by a vehicle/equipment consists of:

- Call sign of the station being called (Inuvik Radio; Fort Smith Airport Radio; etc.)
- The words “THIS IS”.
- Call sign of the station from which the call is made (Loader 151; Staff 35, etc.)

10.9.3 A call-up by an ATC, FSS or CARS consists of:

- Call sign of the station being called (Grader 150; Staff 21; etc.)
- The words “THIS IS”.
- Call sign of the station from which the call is made (Yellowknife Radio; Fort Good Hope Airport Radio, etc.)

NOTE: If you do not receive a response to your call-up, wait a reasonable time and call again.

10.10 Acknowledgments

An acknowledgment means a transmission has been received and understood. Transmissions must be acknowledged or a request to “SAY AGAIN” is made until the transmission is acknowledged. Never acknowledge a transmission until it is fully understood.

EXAMPLE:

An acknowledgement by a vehicle/equipment operator to an ATC, a FSS, or CARS

INUVIK AIRPORT RADIO, THIS IS TRUCK 82, ROGER

A request to “SAY AGAIN” because transmission was not understood

INUVIK AIRPORT RADIO, THIS IS BLOWER 134, SAY AGAIN

10.11 Authorization Request when Escorting Non-Radio Equipped Vehicle

When non-radio equipped vehicles require access to the manoeuvring area, they are required to be escorted by a D AVOP holder operating a radio equipped vehicle. The call-up to the ATC, FSS or CARS must indicate the number of vehicles being escorted by the radio equipped vehicle by using the term “Plus” followed by the number of vehicles being escorted as shown below.

EXAMPLE:

INUVIK AIRPORT RADIO, THIS IS STAFF 31 PLUS TWO, ON THE APRON, PROCEEDING RUNWAY 11/29 FOR SURVEYING FOR APPROXIMATELY 1 HOUR

STAFF 31 PLUS TWO, THIS IS INUVIK AIRPORT RADIO, NO REPORTED TRAFFIC

INUVIK AIRPORT RADIO, THIS IS STAFF 31 PLUS TWO, PROCEEDING RUNWAY 11/29, WILL ADVISE WHEN OFF

10.12 Radio Test Procedures

Aeronautical radio tests, when necessary, should not be more than 10 seconds in duration. The radio test shall not interfere with other aeronautical communications. The readability of signals may be reported in plain language, but most often are reported according to the following scale:

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

10.13 Vehicle Identification

Vehicle identifications (call signs) are assigned to each vehicle by the Regional Airport Manager or designate. Every vehicle operating on the manoeuvring area must have its own assigned vehicle identification. Airport vehicles are given the following identifiers:

Function	Generic Identifier	Number Allocated
Crash Firefighting and Rescue Vehicles	Red	1-19
Staff vehicles (cars, vans, pickups) includes Headquarters, Regional Airport Manager, NAV CANADA	Staff	20-79
Trucks (dump, snow plow, stake, etc.)	Truck	80-119
Snow blowers	Blower	120-149
Tractors, Graders, Loaders	Tractor/Grader/Loader	150-179
Passengers Transfer Vehicles (PTV)	PTV	180-204
Police and Security	Police	205-219
Other vehicles and equipment not covered above	Type of vehicle	220-239
Commercial, maintenance, and construction vehicles and mobile equipment rented or contracted to the Department of Infrastructure	Type of vehicle	240-299
Air carrier and service agency vehicles and equipment	Type of vehicle	300-499
National Defense Vehicles except Airport Emergency Services Vehicles	Type of vehicle consistent with the above	500-599
<i>Note: The identification assigned to a vehicle must be used in full in every radiotelephone transmission from that vehicle.</i>		

10.14 Phraseology “No Reported Traffic”

When advised by ATC/FSS/CARS that there is “no reported traffic” it means no aircraft have reported their location within the airport vicinity. There could be an aircraft with no radio or a radio failure within the vicinity so it is important to always keep a visual look out when on manoeuvring areas.

10.15 D AVOP Test

The written AVOP test is based on 30 multiple choice questions taken from information contained in this manual. Questions that relate to the Local Airport Traffic Directives are contained in another airport document that should be attached to the student study manual and forms part of your AVOP theory exam.

D AVOP exams (gravel and pavement)

- Exams are 30 multiple choice questions.
- There may be an addition exam with 10 questions on Local Airport Traffic Directives at airports where applicable.
- There is a practical driving test.
- Require 80% (corrected to 100%) to pass.
- Retest requires at least 24 hours before applicant can re-write or complete practical test.
- Applicant will have three attempts to pass D AVOP exams.

10.16 Forms and Records

All records are confidential and subject to the Privacy Act and Access to Information Act controls. All requests for access to personal information must be directed to Policy, Planning and Communication. All records are retained in accordance with information contained in the Operational Records Classification Schedule (ORCS).

AVOP Application The Application is filed at the applicable Regional Airport Manager’s office, or elsewhere as designated by the Regional Airport Manager, and a copy is provided to the Applicant or their Employer.

Test Results The test results are kept on file at the applicable Regional Airport Manager’s office, or elsewhere as designated by the Regional Airport Manager.

11 D AVOP Enforcement System

11.1 Enforcement System – General

Safety will be the first responsibility of all airside drivers at GNWT owned and operated airports. At no time do operational considerations such as time pressures, allow drivers to disobey this AVOP Manual. Any action that compromises safety or is not compliant with the AVOP requirements will result in an infraction report and will be treated as an offense under the Enforcement System. Penalties applied under the Enforcement System range from a verbal warning to a lifetime suspension of AVOP privileges.

11.2 Infraction Reports

AVOP permit holders who do not comply with the AVOP Manual will be issued infraction reports. The Regional Airport Manager and designate have the authority to enforce the AVOP Manual and to issue the infraction reports. The RCMP also has authority to enforce the regulations under the Criminal Code. If an infraction report has been issued, the Regional Airport Manager or designate shall send a letter outlining the violation to the AVOP holder's Employer. The GNWT, Air, Marine & Safety Division, Manager Air Safety & Security, will be copied on all infraction reports.

11.3 Corrective Actions

If an AVOP permit holder receives an infraction report or is observed to be non-compliant with the AVOP Manual, the Airport Operator (GNWT) reserves the right to:

- Test drivers at any time, with cause;
- Suspend the AVOP privileges for the violation of any requirement described in this manual; or
- Require an AVOP permit holder to complete additional training and re-testing.

11.4 Infractions and Violation Types

Depending upon the severity of the Infraction or Violation, Vehicle Operators can face penalties that range from a Verbal Warning to a LIFETIME suspension of AVOP privileges as show below.

- **Minor** (verbal warning and up to a 7 day suspension of AVOP privileges);
- **Major** (retraining and retesting, and up to a 14 day suspension of AVOP privileges);
- **Gross** (retraining and retesting, and up to a 30 day suspension of AVOP privileges);
- **Critical** (up to a 1 year suspension of AVOP privileges).

Multiple Infractions or Violations arising from the same incident will result in multiple penalties that are cumulative in scope. AVOP offences are outlined in the tables below.

Multiple critical infractions may result in the vehicle operator receiving a lifetime ban from operating a vehicle on airside.

AVOP infraction penalties are specific to the AVOP program and do not follow the HR disciplinary process.

11.5 Minor Violations

Failure to comply with Local Airport Traffic Directives (LATDs).

Driving on airside without valid AVOP & Driver's Licence in the Operators possession.

Failing to report an accident or unsafe condition (if aware) (e.g. FOD, etc.).

Failure to wear CSA Class 2 outerwear when outside of vehicle or aircraft on airside.

Failure to wear seat belt.

Failure to obey directional and guidance signs, pavement markings and barriers.

Failure to meet vehicle safety equipment and marker requirements.

Failure to use a designated vehicle corridor.

Failure to enter/exit vehicle corridor at 90° angle.

Failure to yield to vehicular traffic.

Driving behind an aircraft.

Driving outside the vehicle corridor while aircraft is on push back.

Driving 1-9 km/h above the speed limit.

Failure to advise when off manoeuvring area.

Unsafe operation of vehicle.

Parking motorized vehicle or equipment in a non-designated area.

Improper passing.

Knowingly depositing, creating, or failing to retrieve FOD.

Use of personal entertainment device with headset or earphones (1st Offence).

Improper use of a cell phone (1st Offence).

Driving without an operational beacon (1st Offence).

Failing to ensure gate is closed upon entry or exit to the airside (1st Offence).

Vehicle incursion, no impact on aviation safety.

Failure to communicate intentions.

Driving between aircraft and terminal when passengers are loading or unloading (1st Offence).

11.6 Major Violations

Leaving equipment on the Apron with no lights or markings.

Driving between an aircraft and a Marshaller.

Failure to yield right-of-way to aircraft or marshalling crew.

Unauthorized parking in fire lane or area that impacts aircraft movements.

Failure to comply with instructions from the Airport Operator (GNWT).

Interfering with an emergency in progress.

Failure to yield right-of-way to responding emergency vehicles.

Failure to yield right-of-way to airport maintenance vehicles.

Failure to maintain proper escort (vehicle or aircraft).

Driving between aircraft and terminal when passengers are loading or unloading (2nd Offence).

Driving 10-20 km/h above the speed limit.

Speeding or causing a threat to taxiing/parked aircraft or pedestrian.

Failure to secure vehicle (leaving the keys in the vehicle).

Vehicle incursion impacting aviation safety.

Failure to communicate intentions resulting in potential near miss incident or accident.

Failure to leave the manoeuvring area when requested by a pilot or FSS.
Causing damage from the improper parking of a vehicle and/or equipment
Failure to adjust vehicle operation to surface conditions.
Unsafe operation of vehicle. (Driving without due care and attention.)
Failure to wear CSA Class 2 outerwear when outside of vehicle on airside (2nd Offence).
Use of personal entertainment device with headset or earphones (2nd Offence).
Improper use of cell phone (2nd Offence).
Driving without an operational beacon (2nd Offence).
Failing to ensure the gate is closed upon entry or exit to the airside (2nd Offence).

11.7 Gross Violations

Runway incursion.
Driving greater than 20 km/h above speed limit.
Failing to give right-of-way to pedestrian.
Driving between aircraft and terminal when passengers are loading or unloading (3rd Offense).
Driving on the Manoeuvring Area without an appropriate AVOP.
Driving with a suspended or expired Territorial or Provincial Driver's Licence.
Unauthorized parking in a fire lane.
Smoking Airside.
Use of personal entertainment device with headset or earphones (3rd Offence).
Improper use of cell phone (3rd Offence).
Failing to ensure the gate is closed upon entry or exit to the airside (3rd Offence).
Driving without an operational beacon (3rd Offence).
Failure to wear CSA Class 2 outerwear when outside of vehicle on airside (3rd Offence.)
Proceeding on to the airside with a vehicle/equipment, that is contaminated with a non-approved ant-icing or de-icing chemical.

11.8 Critical Violations

Causing an accident that either injures or kills an individual or damages an aircraft.
Dangerous driving. (Driving in a manner dangerous to others.)
Driving Airside while impaired by either drugs (illegal or other) or alcohol.
Refusing to submit to a Police breathalyser.
Use of personal entertainment device with headset or earphones (4th Offence).
Improper use of cell phone (4th Offence).

NOTE: AVOP Infractions and Violations are not applied to a Territorial or Provincial Driver's Licence; Offences under the Criminal Code of Canada are.

11.9 Surrendering an AVOP

AVOP Holders operating vehicles Airside shall surrender their AVOP card to a representative of the Airport Operator (GNWT) as requested. Failure to comply with this requirement is a major AVOP infraction for “failure to comply with instructions from the Airport Operator” and may result in withdrawal of AVOP privileges. The representative of the Airport Operator shall return the surrendered AVOP to the Regional Airport Manager. Depending on the circumstances of surrender, the AVOP Holder may be subject to sanctions under the Criminal Code depending on the specific infraction(s).

11.10 Driver’s Licence Suspensions

If an AVOP holder’s Territorial or Provincial Driver’s Licence is suspended or becomes subject to other limitations or conditions of use, the prohibition from operating a motor vehicle applies at ALL GNWT Airports and is not subject to appeal.

An AVOP holder shall notify the Regional Airport Manager or designate if their Territorial or Provincial Driver’s License is suspended or becomes subject to other limitations or conditions of use.

11.11 Driving Airside without a Valid AVOP

11.11.1 Driving Airside without an AVOP is a violation of Section 301.08 and of Section 302.10 of the Canadian Aviation Regulations and may be prosecuted accordingly.

11.11.2 If authorised, driving Airside under Escort without an AVOP is not a violation of Section 301.08 of the Canadian Aviation Regulations.

11.11.3 Any Vehicle Operator found operating a vehicle Airside with an expired, suspended, or revoked AVOP may face the following consequences:

- Escorted removal of the vehicle from Airside;
- Employer notification; and
- Possible prosecution under Section 301.08 or of Section 302.10 of the ***Canadian Aviation Regulations***.

11.11.4 Furthermore, the driver is required to contact the Regional Airport Manager in order to schedule an appointment in order to review the incident and to determine:

- If prosecution under Section 301.08 or of Section 302.10 of the ***Canadian Aviation Regulations*** is warranted;
- What AVOP retraining and retesting (both written and practical tests) is required;
- If suspension of AVOP permit privileges is warranted; or
- If withdrawal of AVOP permit privileges is warranted.

12 Appeal Process

12.1 Appeal Process - General

12.1.1 AVOP permit holders may appeal:

- A Notice of Infraction;
- An AVOP suspension or loss of permit privileges; and
- An AVOP withdrawal.

Initial appeals are made to the Regional Airport Manager responsible for the Airport where the infraction took place. The decisions of the Regional Airport Manager may be appealed to the Safety Management System (SMS) Manager, Department of Infrastructure. Arguments citing operational necessity will not be considered on appeal. The decision of the SMS Manager shall be final and conclusive.

12.2 Appeal Stages

Appeal Stage	Appeal Level	Appeal Process
Stage 1	Regional Airport Manager (or other personal if deemed necessary)	<p>Notice of Infraction</p> <ul style="list-style-type: none"> • A written appeal must be submitted to the Regional Airport Manager within seven (7) business days of receiving the Notice. • The written submission must include all the details of the AVOP permit holder’s case, with justification as to why the appeal should be considered. • The Regional Airport Manager shall review the written appeal and all relevant information and may choose to interview the AVOP permit holder. • Within five (5) business days of receiving the appeal, or within such time as is reasonably necessary to complete a full investigation, the Regional Airport Manager shall issue a decision in writing to the AVOP permit holder’s Employer. • Upon receipt of the written decision, the Employer shall notify the Employee (AVOP permit holder). <p>AVOP Suspension or Loss of Permit Privileges</p> <ul style="list-style-type: none"> • To appeal an AVOP suspension or loss of permit privileges, the AVOP permit holder shall meet with the Regional Airport Manager. If the infraction took place at an Airport other than the Regional Airport Manager’s Airport, the permit holder has the option to contact the Regional Airport Manager by telephone within 24 to 48 hours of the suspension or withdrawal. • At this meeting, the Regional Airport Manager shall present to the AVOP permit holder all information regarding the nature of the offence and the circumstances of the incident leading to the suspension or withdrawal. The AVOP permit holder shall present their interpretation of events and be provided with an opportunity to challenge the evidence presented. • The representative of the Airport Operator (GNWT) who issued the infraction may be requested to present the circumstances of the violation. • Within five (5) business days of receiving the appeal, or within

Appeal Stage	Appeal Level	Appeal Process
		<p>such time as is reasonably necessary to complete a full investigation, the Regional Airport Manager shall issue a decision in writing to the AVOP permit holder's Employer describing, as required, the length of the suspension and the reasons for its length.</p> <ul style="list-style-type: none"> • Upon receipt of the written decision, the Employer shall notify the Employee (AVOP permit holder).
Stage 2	Safety Management System (SMS) Manager	<p>All Written Decisions</p> <ul style="list-style-type: none"> • An AVOP Holder may, within five (5) business days of the Regional Airport Manager's issuance of a written decision describing a suspension or loss or privileges, appeal that decision in writing to the SMS Manager. • The SMS Manager shall consider the report of the Regional Airport Manager and conduct such other investigations as considered appropriate. • The permit holder is entitled to: <ul style="list-style-type: none"> ○ Meet with the SMS Manager to address the AVOP suspension or loss or privileges; ○ Present evidence; and ○ Challenge the conclusions of the Regional Airport Manager. • The SMS Manager (in consultation with senior management if deemed necessary) may confirm, reject, or vary both the decision and the penalty imposed by the Regional Airport Manager. • The SMS Manager shall issue a written decision to the AVOP permit holder's Employer describing, as required, the results of the Stage 2 Appeal and any changes to the findings of the Stage 1 Appeal within five (5) business days. • Upon receipt of the written decision, the Employer shall notify the Employee (AVOP permit holder).

13 AVOP Self-Test Questions

The correct answer for each question is located at the end of the self-test. Check your own score and identify those areas of the manual that may need further study.

1. Which of the following most accurately describes 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 landings, excluding aprons?
 - A. Restricted area
 - B. Movement area
 - C. Airport area
 - D. Manoeuvring area

2. What is an Air Traffic Services Unit?
 - A. A Flight Service Station
 - B. A Community Aerodrome Radio Station
 - C. An Air Traffic Control Tower
 - D. All of the Above

3. Local Airport Traffic Directives?
 - A. Apply only at government airports
 - B. Apply only to commercial vehicles
 - C. Apply only at airports where issued
 - D. Apply only to government vehicles

4. A D AVOP allows the holder the privilege, based on need, to operate a motorized vehicle on:
 - A. Airport apron only
 - B. Uncontrolled taxiways and airport service roads only
 - C. Taxiways, runways, airports aprons and airside service roads
 - D. Uncontrolled taxiway and airport aprons only

5. How much automobile liability insurance coverage is required for a vehicle/equipment to operate on the airside of an airport?
 - A. \$2,000,000.00
 - B. \$1,000,000.00
 - C. \$1,500,000.00
 - D. \$500,000.00

6. What document must be carried at all times when operating a vehicle on airside of airport?
 - A. Valid driver's licence
 - B. A valid AVOP permit
 - C. Security pass
 - D. ROC-A radio licence

7. In order to provide a vehicle escort on airport movement areas, what must a person have?
- A. A valid AVOP, a valid Learners Driver's Licence & a vehicle equipped with an amber rotating beacon
 - B. A valid Driver Licence, a valid AVOP permit, automobile liability insurance endorsed to cover airside operations and a properly equipped vehicle
 - C. No specific requirement in place, anyone can provide a vehicle escort
 - D. Automobile liability insurance endorsed to cover airside operations, a valid Driver Licence and no aircraft scheduled to land or take off from the airport for at least thirty minutes
8. Who is totally responsible and liable for a vehicle being escorted airside?
- A. The Regional Airport Manager
 - B. The company providing the escort
 - C. The Airport Maintenance Contractor
 - D. The RCMP
9. Under normal circumstances, an AVOP permit is valid for a maximum period of:
- A. Two years
 - B. Three years
 - C. Four years
 - D. Five years
10. Failure to renew your AVOP permit prior to expiry will result in:
- A. Being allowed to use it for six months after expiry
 - B. Permit being deemed to have lapsed and having to re-write the AVOP permit tests
 - C. Having a grace period of three months to renew permit
 - D. Permit being deemed to have lapsed but still able to provide an escort to other vehicles
11. If an AVOP permit holder changes employers, the permit holder is required to:
- A. Continue to use the same AVOP permit
 - B. Advise Employer they already have a valid AVOP permit
 - C. Turn old AVOP permit into former Employer or Regional Airport Manager and submit an application for a new AVOP permit, signed by new Employer
 - D. Throw the old permit out and get a new one
12. Who is allowed to be on the airside of an airport?
- A. All persons who have justified a need, including ticketed passengers
 - B. Emergency vehicles and maintenance staff only
 - C. Aircrew and passengers only
 - D. Airport security and maintenance staff only

13. Smoking on airside areas is:

- A. Permitted around aircraft.
- B. Permitted on airside in vehicles with windows closed.
- C. Prohibited anywhere on airside
- D. Prohibited in and around aircraft only.

14. Vehicle operators must ensure that mud or ice is not deposited on aircraft movement surfaces because:

- A. The material can cause damage to taxiing aircraft and aircraft engines
- B. Erosion could occur if too much dirt is removed from the runway edge
- C. The material can cause damage to manoeuvring areas
- D. Dirty vehicles are not permitted on airside of an airport

15. If a vehicle operator notices foreign materials (plastic bags, garbage or solid objects) on the apron, the vehicle operator is required to:

- A. Report the nature and location of the material to the RCMP
- B. Stop, remove the material and report it to their supervisor and the Regional Airport Manager or designate
- C. Report the location of the foreign material to CARS
- D. Leave foreign material for the wind to blow away as there is no special requirement for vehicle operators

16. Personal entertainment devices such as MP3 players are:

- A. Permitted to be operational on the airside of an airport
- B. Permitted to be operational on the airside of an airport only when you are on a break
- C. Permitted to be operational on the airside of an airport only when you are in a vehicle
- D. Not permitted to be operational on the airside of an airport at any time

17. What are factors that may affect a vehicle operator's situational awareness?

- A. Deteriorating weather conditions
- B. Personal conflicts that may result in fatigue or stress
- C. Running behind schedule or task overload
- D. All of the above

18. CSA Class 2 reflective outerwear must be worn whenever:

- A. You are outside of your vehicle on the Airside of the airport
- B. You are inside your vehicle
- C. You are inside the air terminal building
- D. you are on the Groundside of the airport

19. Who has first priority or the right of way over all airside traffic?

- A. Airport maintenance vehicles/equipment
- B. Aircraft servicing vehicles
- C. Aircraft
- D. The vehicle approaching from the right

- 20.** Who is responsible for getting proper automobile liability insurance endorsed to cover airside operations, ensuring the vehicle is properly equipped for airside operations and maintained in a safe operating condition?
- A. The Employer or the owner of the vehicle
 - B. The vehicle operator
 - C. The RCMP
 - D. The Regional Airport Manager
- 21.** Who is responsible for determining the vehicle they are operating is in safe condition and all lights, warning beacon and safety equipment is operational?
- A. The RCMP
 - B. The Regional Airport Manager
 - C. The owner of the vehicle
 - D. The vehicle operator
- 22.** Who is responsible for reporting an unauthorized person found on the airside of an airport without an established need to be there, or a ticketed passenger not under escort of air carrier personnel, a pilot or an aircraft owner?
- A. The airport maintainer
 - B. The air carrier agent
 - C. The Community Aerodrome Radio Station (CARS) only
 - D. All AVOP permit holders
- 23.** Whose responsibility is it to report any obstruction or potentially hazardous condition or accidents on airside?
- A. The aircraft passengers
 - B. The base supervisor
 - C. The mechanic
 - D. All AVOP permit holders
- 24.** All self-propelled vehicles/equipment operating on airport manoeuvring areas, except those under escort, must be equipped with the following safety equipment:
- A. Headlights, tail lights and a warning beacon on the cab or box area
 - B. Flashing hazard lights, head lights, tail lights, parking lights and a flare kit
 - C. A radio capable of communications with ATC/FSS/CARS, a flare kit, headlights, tail lights, parking lights and a warning beacon
 - D. A radio on company frequency, flashing hazard lights, head lights, tail lights, parking lights and a flare kit
- 25.** All towed equipment used on the airport aprons must be equipped with safety marking. Which of the following accurately describes that marking?
- A. A strip of yellow retro-reflective material along the full length of the equipment, and diagonal striped yellow and black retro-reflective panels on the front and rear lower corners
 - B. Headlights, tail lights, a horn and a warning beacon
 - C. A strip of red retro-reflective material along the full length of the equipment
 - D. Reflective material that can be seen from 300 m at night and a slow moving vehicle sign

- 26.** Who is responsible for ensuring gate(s) to the airside of the airport are closed and locked after use?
- A. Passengers
 - B. Airport maintenance staff only
 - C. Any person that has established a need, including AVOP Holders
 - D. Airline employees and passengers only
- 27.** How far away must an AVOP vehicle/equipment operator stay from any aircraft being fuelled, unless involved in servicing the aircraft?
- A. 7.5 meters
 - B. 10 meters
 - C. 15 meters
 - D. 20 meters
- 28.** If there was an aircraft accident or incident at the airport, unauthorized vehicle operators are required to:
- A. Wait for the RCMP, Fire Department and Ambulance to arrive before going to crash site area
 - B. Proceed immediately to the scene and render assistance
 - C. Stay away from the area unless authorized by your employer
 - D. Remain clear of the area unless otherwise authorized by the Regional Airport Manager or designate
- 29.** Whenever an aircraft carrying distinguished visitors is at an airport, unauthorized personnel and vehicles are required to:
- A. Remain clear of the aircraft unless otherwise authorized by the Regional Airport Manager
 - B. Drive slowly past the area to find out who the person
 - C. Drove close to the aircraft so you can take pictures
 - D. There is no restriction on vehicle movement and you can drive up to the aircraft
- 30.** When is it permissible for a vehicle to cross directly in front of or behind an aircraft with engines running?
- A. Not at any time
 - B. The red, anti-collision beacon of the aircraft is turned off
 - C. The Marshaller waves permission or the aircraft wheels are blocked (chocked)
 - D. You have waited three minutes and the pilot has not indicated any intention to move the aircraft
- 31.** When passengers are enplaning or deplaning an aircraft, can a vehicle drive between the aircraft and the air terminal building to perform operational duties?
- A. Only if vehicle/equipment operator is being escorted by aircraft servicing staff and passengers are told to keep out of the way
 - B. At no time will an airside vehicle/equipment operator be allowed to drive between an aircraft and the air terminal building when passenger are enplaning or deplaning
 - C. It is allowed when the marshaller stops passengers and waves to the vehicle operator to proceed
 - D. Vehicle operators can proceed when there is an opening between passengers and the air terminal building

- 32.** When a vehicle operator enters or exits a vehicle corridor, they shall do so under the following conditions:
- A. Enter and exit the corridor at right angles (90°)
 - B. Signal their intent to turn with the vehicle's turn signal lights
 - C. Yield the right of way to vehicles already in the corridor
 - D. All of the above
- 33.** Whenever a self-propelled vehicle is moving from one place to another on the airport movement areas, except those under escort, what lighting must be operational?
- A. Four way flashers and an amber warning beacon
 - B. Headlights, tail lights and an amber warning beacon
 - C. Parking lamps, four way flashers and back-up lamps
 - D. An amber warning beacon only
- 34.** When vehicles are parked in an approved airside parking space, they shall be:
- A. Left with the warning beacon or flashing signal lamps in operation
 - B. Backed into the parking space with warning beacon and lights off
 - C. Driven in front first into parking space with warning beacon and lights off
 - D. Left with the engine running, alongside the building and all lights on
- 35.** If the vehicle you are operating breaks down on the apron or airport movement area, what would you do?
- A. Push the vehicle/equipment off to side of apron by the shortest route and get someone to tow disable vehicle/equipment off airside for repairs
 - B. Sound the horn until someone comes to your assistance; tow the disabled vehicle/equipment off apron to groundside for repairs
 - C. Wait until the next aircraft lands and have the passengers help you push the vehicle/equipment off the apron to groundside
 - D. Advise ATC/FSS/CARS and the Regional Airport Manager or designate; make arrangement for the immediate removal of vehicle from the movement area; and advise Regional Airport Manager or designate and ATC/FSS/CARS when the vehicle is off airside
- 36.** What is maximum speed limit on the apron?
- A. 50 Km/h
 - B. 30 Km/h
 - C. 25 Km/h
 - D. 15 Km/h
- 37.** What is the maximum speed limit on airside services roads?
- A. 25 Km/h
 - B. 50 Km/h
 - C. 60 Km/h
 - D. There is no speed limit

- 38.** When a vehicle operator is moving from one aircraft stand to another, speed shall be reduced to:
- A. 10 Km/h
 - B. 25 Km/h
 - C. 15 Km/h
 - D. 50 Km/h
- 39.** When a vehicle operator is operating within 6 m of an aircraft, speed shall be reduced to:
- A. 25 Km/h
 - B. 50 Km/h
 - C. 10 Km/h
 - D. 15 Km/h
- 40.** How far away must a vehicle/equipment operator stay from any aircraft, unless involved in servicing it?
- A. 7.5 meters
 - B. 10 meters
 - C. 15 meters
 - D. 20 meters
- 41.** Prior to proceeding onto airside manoeuvring areas, what vehicle requirements must be met?
- A. A vehicle properly equipped with an amber warning beacon, a flare kit, a radio capable of two way communications, and carry the appropriate insurance
 - B. A vehicle properly equipped with an amber warning beacon, retro reflective markings and a radio capable of two way communication
 - C. A vehicle properly equipped with hazardous goods placards, a flare kit, a radio capable of two way communications, and carry the appropriate insurance
 - D. A vehicle properly equipped with four-way flashers, a flare kit, a radio capable of two way communications, and carry the appropriate insurance
- 42.** When a vehicle is towing an aircraft on the manoeuvring areas of an airport, the vehicle operator must:
- A. Ensure that the towing vehicle is diesel powered only
 - B. Maintain radio contact with the ATC/FSS/CARS
 - C. Refrain from further radio contact once towing commences
 - D. Maintain radio contact with the pilot only
- 43.** What is the colour of lights used to mark the edges of aprons and taxiways?
- A. White
 - B. Blue
 - C. Amber
 - D. Red
- 44.** What colour lights are used to mark the intersection of two or more taxiways?
- A. Single blue light
 - B. Double white lights
 - C. Double amber lights
 - D. Double blue lights

45. Lights used to indicate the intersection of a taxiway and aprons are what colour and arrangement?

- A. Single amber (yellow)
- B. Double amber (yellow)
- C. Single blue
- D. Double blue

46. What colour are threshold/runway end lights?

- A. Half green and half blue
- B. Half white and half red
- C. Half amber and half green
- D. Half red and half green

47. What is an aerodrome beacon?

- A. It is a white flashing light use to light up the highest building around the apron
- B. Is a white light usually located on a building or a tower; it can be activated by the pilot of an aircraft or manually by ATC/FSS/CARS; when activated it flashes and is used by pilots to locate the airport
- C. Is a white light usually located on a building or a tower; it can be activated by the pilot of an aircraft or manually by ATC/FSS/CARS; when activated it flashes and advises the community of an incoming aircraft
- D. It's a rotating beacon that transmits a radio signal with the location of airport to aircraft

48. Runway guard lights are positioned at the taxi-holding position for what purpose?

- A. To illuminate the taxi-holding position pavement markings
- B. To serve as a reminder to aircraft and vehicles to wait at this point until permission is received to proceed, during reduced visibility conditions
- C. To indicate to vehicles an aircraft is crossing the taxiway
- D. To indicate to aircraft only, that they may proceed

49. What is the minimum recommended distance an airside vehicle operator with a D AVOP permit can come to the RILS, PAPIS or VASIS?

- A. 1 m (3 ft.)
- B. 2 m (6 ft.)
- C. 3 m (9 ft.)
- D. 15 m (50 ft.)

50. What is the normal colour of a windsock?

- A. Yellow and white
- B. Red/orange and white
- C. Green and red
- D. Yellow and red

51. Which of the following examples most accurately describes the precaution that must be taken before operating a vehicle near radio navigational facilities?
- A. Get permission from the Regional Airport Manager prior to entering the area
 - B. Drive a small vehicle so that the signal will be affected as little as possible
 - C. Get approval from Air Traffic services unit at the airport
 - D. Stay away from this equipment at all times
52. The colour of mandatory signage that shall be obeyed is:
- A. White background with red characters
 - B. Green background with black characters
 - C. Green background with white characters
 - D. Red background with white characters
53. Location signs used to identify the movement area the aircraft or vehicle is on or is entering, are what colour?
- A. Yellow characters on black background
 - B. Black characters on yellow background
 - C. White characters on red background
 - D. Red characters on white background
54. Manoeuvring surfaces at an Airport that are designated by a letter are?
- A. Aprons
 - B. Runways
 - C. Service roads
 - D. Taxiways
55. The colour of pavement markings related to aircraft movement guidelines and aircraft lead-in lines are:
- A. Green, except in grassed areas
 - B. Yellow
 - C. White
 - D. Different for each class and type of aircraft
56. The purpose of an aircraft movement guideline is:
- A. To indicate where aircraft movement is permitted
 - B. To indicate where aircraft movement is not permitted
 - C. To outline lanes on a taxiway for vehicle movement
 - D. To serve as a center-of-aircraft guideline to aid in the safe travel of aircraft on taxiways and aprons
57. Which of the following is used to indicate the "HOLD" position on a paved taxiway?
- A. A sign with a red background and white characters located on the left side or both sides of a taxiway
 - B. A single solid and single broken white line across the width of the taxiway with the broken line closest to the taxiway
 - C. Two solid and two broken yellow lines across the width of the taxiway with the two broken lines closest to the runway
 - D. A and C above

58. What are apron safety lines?

- A. Defines an area(s) for the parking of airport maintenance equipment and vehicles
- B. Defines an area(s) for free movement of vehicles performing their duties related to aircraft
- C. Defines an area(s) where vehicle flashing lamps or beacon lamps must always be turned on
- D. Defines an area(s) used by ground vehicle(s) and other aircraft servicing equipment to park and provides for a safe separation from aircraft

59. What are apron passenger path lines?

- A. A 15cm wide continuous white line that provides guidance from the edge of the apron to the entry door position of the aircraft for which the aircraft stand is normally intended to serve
- B. Two white parallel lines with diagonal hatching between them giving a zebra stripe appearance and runs from the edge of the apron to the entry door position of the aircraft for which the aircraft stand is normally intended to serve
- C. A 1-meter wide continuous white line that provides guidance from the edge of the apron to the entry door position of the aircraft for which the aircraft stand is normally intended to serve
- D. Two Yellow parallel lines spaced approximately 2 meters apart with diagonal hatching at 45 degree angles between them giving a zebra stripe appearance and runs from the edge of the apron to the entry door position of the aircraft for which the aircraft stand is normally intended to serve

60. Vehicle corridors may be provided on a paved apron. Vehicles operators shall use these vehicle corridors when:

- A. Moving about the apron or transiting more than one gate
- B. Performing snow removal on the apron
- C. Refuelling or servicing an aircraft
- D. Escorting passengers to an aircraft

61. What lighting can be used as a reference point to indicate a hold position for a gravel runway?

- A. Double blue lights
- B. A single blue light
- C. Double amber lights
- D. A single amber light

62. When speaking into a microphone, you should always:

- A. Keep rate of speech constant, neither too fast or too slow
- B. Refer to the radio manufacturer's manual for the recommended distance from the mouth to hold the microphone
- C. Speak plainly and distinctly to prevent running consecutive words together
- D. All of the above

63. The "press to talk" (PTT) switch on a microphone should be:

- A. Clicked on and off between words or phrases while you think about what you want to say
- B. Left open after you complete your transmission to show you are waiting for a reply
- C. Depressed before beginning to speak and kept depressed for the full transmission
- D. Clicked on and off rapidly to get the attention of the Air Traffic Service Unit

- 64.** When phonetics are required for clarity in radiotelephone communications, what alphabet must be used?
- A. The Standard English (French) Alphabet
 - B. The ICAO Phonetic Alphabet
 - C. The Radio Technician's Alphabet
 - D. Industry Canada Vehicle Communication Alphabet
- 65.** A radio "blind spot" is:
- A. Any place on the airport where an obstruction prevents a radio signal from being sent or received
 - B. Any place where the vehicle operator cannot see the control tower or Flight Service Station
 - C. Any place on the airport where the Air Traffic Services Unit cannot see the vehicle
 - D. A location off airport that is too far away for the Air Traffic Services Unit transmission to be received by the vehicle
- 66.** At Airports with Air Traffic Control or a Flight Service Station, vehicle operators are required to obtain permission prior to :
- A. Proceeding on the airport apron
 - B. Proceeding on an uncontrolled taxiway
 - C. Proceeding past the apron taxiway intersection and/or entering within 60m from the side of a paved runway
 - D. Proceeding past the apron taxiway intersection and/or entering within 45m from the side of a paved runway
- 67.** Vehicle operators entering the manoeuvring area from the pre-threshold area of the runway:
- A. Must obtain permission 150m (500 ft.) from the threshold prior to proceeding
 - B. Must obtain permission 60m (200 ft.) from the threshold prior to proceeding
 - C. Must obtain permission 45m (150 ft.) from the threshold prior to proceeding
 - D. Must obtain permission 15m (50 ft.) from the threshold prior to proceeding
- 68.** When a vehicle/equipment operator is working on the manoeuvring areas, under what circumstances may the operator leave a vehicle radio unattended?
- A. Never
 - B. With specific permission of the Air Traffic Services Unit
 - C. If the radio is equipped with an external speaker and the operator can answer in a timely manner
 - D. Both B and C are correct
- 69.** When is a vehicle operator required to report off the manoeuvring area?
- A. When the vehicle is in the process of leaving the runway
 - B. When the vehicle is at least 60 m from the side of the paved runway surface
 - C. When the vehicle is off the runway on a controlled taxiway
 - D. When the vehicle is off the airport property

- 70.** Requests for permission onto manoeuvring areas, at airports with an ATC or FSS, shall include:
- A. The vehicle identification
 - B. The intended activity/work to be performed while in the manoeuvring area and/or specific destination and intended route (only if a specific route is required) (otherwise the ATC/FSS will normally specify the route to be followed)
 - C. The vehicle's current location
 - D. All of the above
- 71.** When told to "Hold Short" or when awaiting permission to cross a paved runway, what must the vehicle operator do?
- A. Stop at least 60 m (200 ft.) from the nearest edge of the runway or behind the solid yellow lines painted on the taxiway and wait for permission from the Air traffic Services Unit to proceed
 - B. Stop at least 45 m (150ft.) from the nearest edge of the runway or behind the solid yellow line on the taxiway. Look both to the right and the left and proceed only if aircraft are not landing or taking off
 - C. Read back hold short instruction, stop at least 60 m (200 ft.) from the nearest edge of the runway or behind the solid yellow lines painted on the taxiway and do not proceed until the Air Traffic Service Unit gives permission
 - D. Keep all future transmissions as brief as possible
- 72.** What instruction from an Air Traffic Services unit requires a mandatory read back?
- A. Hold short
 - B. Proceed as requested
 - C. Confirm
 - D. Exit the runway
- 73.** Under what conditions may a vehicles/equipment be operational within 60m of a paved runway edge?
- A. When the Air Traffic Services Unit gives permission/advisory and no aircraft are landing or departing
 - B. At all times, as long as you do not go onto the runway
 - C. Only when operating a slow moving vehicle
 - D. Only when the Regional Airport Manager gives permission
- 74.** You are working in the manoeuvring area and your vehicle breaks down. You are unable to move the vehicle under your own power. What should you do?
- A. Leave your vehicle with the lights on and walk to where you can get help
 - B. Get out of the vehicle and try and push it off to the side of the runway
 - C. Try to repair the vehicle on your own
 - D. Notify the Air Traffic Service Unit of your location and difficulty and ask for assistance and stay with the vehicle until help arrives

75. You are operating a radio-equipped vehicle in the manoeuvring area and your radio breaks down. What should you do?
- A. Return to a non-manoevring area by the shortest route for repairs
 - B. Try to repair the radio and if this fails, sound the horn until someone comes to your assistance
 - C. Wait until the next aircraft lands and follow it back to the apron
 - D. Turn your vehicle to face the Air Traffic Services Unit and flash your headlights on and off. Then immediately vacate the runway.
76. A vehicle with a disabled radio has received instructions to exit the manoeuvring area. To exit, the vehicle must cross another runway to reach the apron. The vehicle operator is required to:
- A. Proceed without stopping until off the manoeuvring area
 - B. Sound the horn twice before crossing the runway
 - C. Hold short of the runway and check for arriving or departing aircraft before proceeding across the runway
 - D. Hold short of the runway and wait to receive instruction (by flashing runway lights on and off) from the Air traffic Services Unit before proceeding
77. What action must you take if the vehicle you are operating has a complete failure on the runway?
- A. Leave the vehicle on the runway and walk over to the Air Traffic Services Unit to advise them to issue a NOTAM for disabled vehicle on the runway
 - B. Stand outside your vehicle and wave at aircraft to warn them of a vehicle on the runway
 - C. Light and place red, road flares 30 m (100 ft.) ahead and behind the vehicle in a parallel line to nearest runway or taxiway as a warning to aircraft
 - D. Use a flashlight to signal CARS/FSS that you need help and stay with the vehicle to warn aircraft, using a flashlight
78. The blinking on and off of runway lights means:
- A. Identify yourself to the tower by turning your beacon light off
 - B. Leave the runway immediately
 - C. The Air Traffic Services Unit wants you to drive faster
 - D. The runway lights are being tested
79. At airports where the Community Aerodrome Radio Station (CARS) provides a communication service, what must vehicle/equipment operators do before proceeding past the apron taxiway intersection?
- A. Communicate their intentions to the CARS operator
 - B. Request permission to proceed onto the manoeuvring areas
 - C. Proceed directly onto the manoeuvring areas if no aircraft traffic is present
 - D. Wait for permission from CARS prior to proceeding
80. At airports where CARS has explained the air traffic situation to the vehicle/equipment operator, what must the vehicle equipment operator then do?
- A. Decide if it is safe to go on the runway
 - B. Advise CARS of his/her intentions
 - C. Proceed accordingly
 - D. All of the above

- 81.** At airports with a CARS communication service, what must the vehicle operator do if advised an aircraft is taxiing for takeoff or inbound to land?
- A. Try and finish up their work quickly before the aircraft enters the manoeuvring area
 - B. Wait outside the runway edge lights until the aircraft is off all manoeuvring areas
 - C. Advise CARS of the vehicle operator's intentions and report off the runway or holding short
 - D. Communicate with the aircraft directly advising the vehicle operator need ten more minutes to complete snow plowing
- 82.** When entering onto the runway from the pre-threshold area, when must a vehicle operator advise their intentions to the CARS or request permission from ATC or FSS?
- A. Prior to 150 m (500 ft.)
 - B. Prior to 60 m (200 ft.)
 - C. Prior to 45 m (150 ft.)
 - D. Prior to 15 m (50 ft.)
- 83.** In addition to communicating the vehicle/equipment operator's intentions to proceed onto the runway or within the manoeuvring areas to the CARS station, what else must the vehicle/equipment operator do?
- A. There are no other requirements, proceed as quickly as possible so you lessen the time you are on the runway
 - B. Visually check to ensure you will not interfere with any aircraft on the intended route or approaching the airport
 - C. Turn your radio down so the sound will not distract you when you are performing specific tasks
 - D. Take a passenger along with you to operate the radio so you can focus on the task at hand
- 84.** Vehicle/equipment operators advising CARS of intentions to proceed into the manoeuvring area shall include:
- A. The vehicle identification
 - B. The intended activity/work to be performed while in the manoeuvring area and/or specific destination and intended route (only if a specific route is required)
 - C. The vehicle's current location
 - D. All of the above
- 85.** In situations where a vehicle/equipment operator must proceed onto the manoeuvring area/runway after CAR/FSS/ATC hours of operation, the vehicle/equipment operator must:
- A. Have a vehicle equipped with a two way radio on the mandatory frequency or air traffic frequency
 - B. Broadcast intentions two times, prior to proceeding
 - C. Visually check to ensure there are no aircraft arriving or departing before proceeding onto the runway
 - D. All of the above

- 86.** When an aircraft makes a low pass over the runway, all vehicle operators on the runway must:
- A. Move over to the edge of the runway
 - B. Proceed with your duties until you receive direct instructions to leave the manoeuvring area
 - C. Park your vehicle parallel to the runway edge with headlights on and facing the direction of aircraft approach
 - D. Leave the runway immediately
- 87.** When advised by CARS of an inbound aircraft the vehicle operator shall:
- A. Acknowledge the information and advise intentions
 - B. Leave the runway and proceed to the apron or a taxiway holding position or to a safe position off to the side of the runway at least 45m (150 ft.) from the nearest edge of a gravel runway and 60m (200 ft.) from the nearest edge of a paved runway
 - C. Inform CARS that the vehicle operator is off the runway and give exact position
 - D. All of the above
- 88.** Communications between pilots and vehicle/equipment operators, if CARS/FSS/ATC is closed, is limited to:
- A. Aircraft movement surface condition reporting (only if qualified to complete and report AMSCR) and the location of ground vehicle traffic
 - B. Weather conditions and aircraft movement surface condition reporting
 - C. Ground vehicle traffic location only
 - D. Aircraft movement surface condition reporting only
- 89.** When exiting the manoeuvring areas of an airport, if CARS/FSS/ATC is closed, the following requirements must be met:
- A. There is no requirement as the CARS is not staffed and no one can hear you
 - B. Broadcast on the mandatory frequency or the air traffic frequency that the ground traffic is off the manoeuvring area upon exiting
 - C. Leave a note for the CARS/FSS/ATC staff that you were on the runway and that you exited
 - D. Maintain a log book of the times you were on the manoeuvring area when CARS was closed
- 90.** What is the proper radio procedure for a vehicle operator to use to call the Air Traffic Services Unit?
- A. Say the name of the station being called, the words "THIS IS", followed by the vehicle call sign.
 - B. Say the name of person being called, the words "THIS IS", followed by the vehicle call sign.
 - C. Say the vehicle call sign, the words "THIS IS", followed by the station you are calling.
 - D. There is no standard procedure.
- 91.** If a radio transmission or instruction from the Air Traffic Service Unit is not understood, what should the vehicle/equipment operator do?
- A. Proceed as requested and try and go quickly
 - B. Go to the Air Traffic Services Unit and ask them what they said
 - C. Respond to the Air Traffic Services Unit on the radio and request "SAY AGAIN"
 - D. Acknowledge the transmission

92. When a D AVOP permit holder is escorting a non-radio equipped vehicle(s) on the manoeuvring areas, what is the standard phraseology to be used when calling the Air Traffic Services Unit?
- A. AIRPORT RADIO THIS IS STAFF 31
 - B. AIRPORT RADIO THIS IS STAFF 31 AND A TRUCK AND A LOADER
 - C. AIRPORT RADIO THIS IS STAFF 31 PLUS TWO
 - D. AIRPORT RADIO THIS IS STAFF 31 AND I HAVE SOME OTHER VEHICLES WITH ME
93. The readability of a radio signal may be reported numerically. A reported readability of four (4) means:
- A. Unreadable
 - B. Readable
 - C. Readable but with difficulty
 - D. Perfectly readable
94. When referring to Crash Firefighting and Rescue Vehicles on the radio, they are known as:
- A. Red
 - B. Police
 - C. Staff
 - D. Emergency Vehicles
95. A vehicle advisory from an Air Traffic Services Unit may indicate that there is “no reported traffic”. What does this term mean?
- A. No aircraft traffic has reported to the Air Traffic Services Unit but aircraft without a radio may still be present
 - B. There are no aircraft in the area of concern to the vehicle operator
 - C. Aircraft are known to be operating to and from the airport but are not big enough to bother reporting them to the vehicle operator
 - D. Secret military flights are operating into the airport that cannot be reported to the vehicle operator
96. What testing is required to acquire a D AVOP permit?
- A. A D AVOP written test only
 - B. A LATD written test and an Industry Canada radio licence test
 - C. A D AVOP written test, a LATD written test, an Industry Canada radio licence test (if the applicant does not already have ROC-A) and a practical driving test
 - D. A practical driving test only

14 AVOP Self-Test Answers

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|--------------------|--------------------|-----------------|----------------|
| 1. D (Definitions) | 2. D (Definitions) | 3. C (2.2) | 4. C (2.3) |
| 5. A (2.6.2) | 6. A (2.8.1) | 7. B (2.9) | 8. B (2.9) |
| 9. D (2.10.1) | 10. B (2.10.2) | 11. C (2.10.3) | 12. A (3.1.1) |
| 13. C (3.1.5) | 14. A (3.2.1) | 15. B (3.2.3) | 16. D (3.3) |
| 17. D (3.4.1) | 18. A (3.5.1) | 19. C (3.6.1) | 20. A (4.1.1) |
| 21. D (4.2.1) | 22. D (4.3.1) | 23. D (4.3.4) | 24. C (5.1.1) |
| 25. A (5.2.1) | 26. C (6.1.2) | 27. C (8.1.5) | 28. D (8.1.6) |
| 29. A (8.1.6) | 30. C (8.1.12) | 31. B (8.1.14) | 32. D (8.2.5) |
| 33. B (8.3.1) | 34. B (8.4.1) | 35. D (8.4.4) | 36. C (8.5.1) |
| 37. B (8.5.2) | 38. C (8.5.3) | 39. C (8.5.4) | 40. C (8.6.6) |
| 41. A (8.7) | 42. B (8.7.5) | 43. B (9.2) | 44. D (9.2) |
| 45. B (9.2) | 46. D (9.2) | 47. B (9.2) | 48. B (9.2) |
| 49. B (9.2) | 50. B (9.2) | 51. C (9.3) | 52. D (9.4) |
| 53. A (9.4) | 54. D (Definition) | 55. B (9.5) | 56. D (9.5) |
| 57. D (9.5) | 58. D (9.5) | 59. B (9.5) | 60. A (9.5) |
| 61. C (9.6) | 62. D (10.1) | 63. C (10.1.2) | 64. B (10.1.4) |
| 65. A (10.1.5) | 66. C (10.2.1) | 67. A (10.2.2) | 68. D (10.2.3) |
| 69. B (10.2.4) | 70. D (10.2.10) | 71. C (10.2.11) | 72.A (10.2.11) |

73. A (10.2.1)

74. D (10.3.1)

75. D (10.3.2)

76. D (10.3)

77. C (10.3.3)

78. B (10.3.4)

79. A (10.4.1)

80. D (10.4)

81. C (10.4.4)

82. A (10.4.5)

83. B (10.4.10)

84. D (10.4.14)

85. D (10.6.1)

86. D (10.6.1)

87. D (10.4.15)

88. A (10.6)

89. B (10.6)

90. A (10.9.2)

91. C (10.10)

92. C (10.11)

93. B (10.12)

94. A (10.13)

95. A (10.14)

96. C (10.15)