



YYF Penticton Airport Winter Operations Plan 2024/2025



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Airport Winter Maintenance Plan

CARs 302.410 The operator of an airport shall have an airport winter maintenance plan that

- was developed by the operator after consultations with a representative sample of the air operators that use the airport; and
- includes the items required under section 302.411.

The operator of the airport shall review its airport winter maintenance plan at least once a year as well as each time the operator does not clear a priority area in accordance with the plan.

If the operator of the airport determines, as a result of a review, that its airport winter maintenance plan should be amended, the operator shall consult a representative sample of the air operators that use the airport before amending the plan.

The operator of the airport shall keep at the airport

- an up-to-date copy of its airport winter maintenance plan;
- a record of all consultations required under this section; and
- a record of each review required under this section.

CARs 302.411 An airport winter maintenance plan shall include

- procedures for identifying which airside areas are priority 1 areas, priority 2 areas or priority 3 areas during winter storm conditions
- a description of the winter maintenance operations to be carried out in an airside area once it is identified as a priority 1 area, priority 2 area or priority 3 area
- communication procedures that meet the requirements of subsection 322.411(2) of the Airport Standards — Airport Winter Maintenance
- procedures for publishing a NOTAM in the event of winter conditions that might be hazardous to aircraft operations or affect the use of movement areas and facilities used to provide services relating to aeronautics
- safety procedures for controlling the flow of ground vehicles during winter maintenance operations to ensure the safety of persons, vehicles and aircraft
- procedures for minimizing the risk of ice control chemicals — other than the ice control chemicals specified in subsection 322.415(1) of the Airport Standards — Airport Winter Maintenance — being tracked onto an airside area
- a description of the lines of authority and organizational relationships with respect to winter maintenance, including contact names and telephone numbers
- a description of how actions undertaken as part of winter maintenance will be coordinated
- a description of the arrangements for snow clearance

- a description of the process for reviewing and amending the plan
- a description of the administrative procedure for distributing the plan and its amendments; and
- a list of all agreements respecting the provision of winter maintenance services for navigation aids at the airport, and signed copies of those agreements.

Amendment Procedures

Winter Operations Plan amendments will be issued as required. The Airport Manager is responsible for the development, issuance, and control of the amendments. The Airport Manager ensures the contents are accurate, up to date and meets all regulatory requirements. The Record of Amendments and List of Effective Pages will be updated accordingly.

- (a) Each page will show the amendment number and date at the bottom.
- (b) When the manual requires an amendment, the proposed amendment and the "List of Effective Pages" (LEP) will be forwarded to those listed in the Distribution List and is available to the Minister upon request.
- (c) It is the responsibility of the individual manual holders to insert all amendments issued to them in a timely manner and ensure that all manual pages are consistent with the LEP. Any discrepancy between the LEP and the content of this manual must be brought to the attention of the Airport Manager.
- (d) All amendments will be shown by providing a vertical black line in the right margin where changes in paragraphs or wording are made.

Corrigenda

Minor changes (e.g. phone #, typos) can be accommodated by "pen and ink" amendments. Distribution of the changes will be the same as above and a record of these changes will be recorded in the corrigenda in the same format as the "Record of Amendments"

List of Effective Pages

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Title Page	6	October 15, 2024
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44	4	October 21, 2022
45	2	October 25, 2021
46	2	October 25, 2021
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48	5	October 20, 2023
49	6	October 15, 2024

Record of Amendments

No.	DATE ISSUED	DATE ENTERED	ENTERED BY	ORGANIZATION
1	November 6, 2020	November 6, 2020	Kerri Haybittle-Raffel	Transport Canada Penticton Airport
2	October 25, 2021	October 25, 2021	Kerri Haybittle-Raffel	Transport Canada Penticton Airport
3	November 1, 2021	November 2, 2021	Lance Duncan	Transport Canada Penticton Airport
4	October 21, 2022	October 21, 2022	Simon Barbour	Transport Canada Penticton Airport
5	October 20, 2023	October 27, 2023	Simon Barbour	Transport Canada Penticton Airport
6	October 15, 2024	October 15, 2024	Simon Barbour	Transport Canada Penticton Airport
7				
8				

Corrigenda

No.	DATE ISSUED	DATE ENTERED	ENTERED BY	ORGANIZATION
1				
2				
3				
4				
5				
6				
7				
8				

Distribution List

Transport Canada – Penticton Airport	Airport Manager	Paper & Electronic
	Airport Maintenance & Operations Supervisor	Paper & Electronic
	Airport Maintenance & Operations Specialists	Paper & Electronic
	Runway Inspection Vehicles: Staff 45 & Staff 47	Paper
	Manager, Resource Management	Electronic
	Administrative Clerk	Electronic
Transport Canada – Programs Group, Pacific Region	Penticton Airport Accountable Executive	Electronic
	Regional SMS Officer	Electronic
	Regional SMS Support Officer	Electronic
NAV CANADA – Penticton Flight Service Station (FSS)	Site Manager	Electronic
NAV CANADA – Penticton Flight Service Station (FSS)	Team Supervisor Penticton FSS	Electronic
	Penticton FSS	Paper & Electronic
Airport Security	Airport Security Supervisor, CYYF	Electronic
Executive Flight Centre	Operations Supervisor	Electronic
Paladin (CATSA)	Regional Manager	Electronic
	YYF Site Supervisors	Electronic
Executive Aviation (EA)	YYF Operations Manager	Electronic
WestJet Encore	Regional Manager	Electronic
Pacific Coastal	Operations Manager	Electronic
Transport Canada – Civil Aviation, Pacific Region	Civil Aviation Safety Inspector, Aerodromes and Air Navigation	Electronic (<i>upon request</i>)

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1.0 General Information

1.1 Introduction

The Penticton Airport Winter Operations Plan has been developed pursuant to the requirements outlined in the Canadian Aviation Regulations (CARs): Part III — Aerodromes, Airports and Heliports; Subpart 2 — Airports; Division IV — Airport Winter Maintenance.

As the airport supports air transport service as defined under Subpart 5 (Airlines) of CARs Part VII, the Winter Operations Plan has additionally been promulgated in accordance with the applicable standards, advisory circulars and guidance documents.

The plan is intended to optimize the use of personnel, equipment and resources to effectively clear snow and ice from aircraft, vehicle and pedestrian movement surfaces.

The priorities of the plan are to:

- a. Provide airport stakeholders and user groups with a framework of the air and groundside winter maintenance and operational activities in place at the airport;
- b. Outline the Airport Maintenance and Operation Team's plan to prioritize, maintain and monitor all runway, taxiways and aprons to ensure the safe and continuous operation of the airside movement areas during winter conditions; and
- c. Communicate the reporting procedures related to the provision of Aircraft Movement and Surface Condition Reports (AMSCRs).

The Winter Operations Plan is developed in consultation with the airlines and stakeholders that operate at the Penticton Airport.

The plan is reviewed and amended as necessary on an annual basis. It is then finalized and distributed to stakeholders included in the Distribution List

Penticton Airport Winter Operations Plan is in effect from November 1, 2024 until March 31, 2025.

It should be noted that depending on weather conditions, winter operations may end sooner, and formal notification will be provided to stakeholders included in the distribution list.

1.2 Regulations / Standards

The following regulations, standards and guidance documents were referenced in the development of operational procedures:

- Canadian Aeronautical Regulations
 - Standard 322 Division IV – Airport Winter Maintenance
 - CARS 302 Division IV – Airport Winter Maintenance
- Transport Canada Civil Aviation (TCCA) Advisory Circulars
 - AC 300-005 – Changes to Runway Surface Condition Reporting
 - AC 300-019 – Global Reporting Format (GRF) for Runway Surface Condition Reporting
 - AC 302-014 – Runway Ice Control Chemicals
- TP312 Aerodrome Standards and Recommended Practices
- NAV CANADA – Canadian NOTAM Operating Procedures (CNOP)

1.3 Notification

The operator of an airport referred to in paragraph 302.402(2)(b) shall:

- (a) provide the Minister, at least 60 days before implementing a decision to comply with sections 302.410 to 302.419 instead of sections 302.406 and 302.407, with notice in writing of that decision
- (b) provide the Minister, at least 60 days before implementing a decision to resume complying with sections 302.406 and 302.407, with notice in writing of that decision; and
- (c) notify the air operators that use the airport, and the air navigation services provider, of any change in the level of service provided at the airport as a result of a decision referred to in paragraph (a) or (b)
- Refer to CARs 302.403
YYF complies with CARS 302.410 to 302.419

1.4 Winter Maintenance Measures

Each year, before the start of winter maintenance operations, the operator of an airport (YYF) shall:

- consult a representative sample of the air operators that use the airport about the intended level of winter maintenance and keep a record of the consultations
- provide the aeronautical information publications provider with information, for publication in the Canada Flight Supplement, about the level of winter maintenance; and
- include information in the airport operations manual about the level of winter maintenance.

The operator of the airport shall use AMSCRs to report the surface conditions of all movement areas and shall forward the AMSCRs to the air navigation services provider (FSS). Refer to CARs 302.406 (1) & (2)

2.0 Responsibilities

2.1 Penticton Airport

The Airport Maintenance and Operations Supervisor is responsible for the assignment of personnel, snow and ice removal machinery and equipment, and de-icing chemicals in accordance with the air and groundside priorities and operational requirements as detailed in this plan.

The Airport Maintenance and Operations personnel on shift, and/or designated equipment operator are responsible for taking Canadian Runway Friction Index (CRFI) readings and issuing Aircraft Movement Surface Condition reports (AMSCR) as required. (Refer to Section 4.2 Aircraft Movement Surface Condition Report.)

The Airport Maintenance and Operations personnel coordinates all ground traffic movements on aircraft maneuvering areas with Penticton FSS via the ground radio frequency 121.9 MHz.

The Airport Manager and/or the Airport Maintenance and Operations Supervisor will provide the NAV CANADA – Penticton Flight Service Station, Site Manager and Team Supervisor a memorandum outlining the commencement of Winter Operations and the relevant contact information for Airport Maintenance and Operations personnel. (Refer to Appendix D)

2.2 NAV CANADA

During Winter Operations NAV CANADA will relay qualifying AMSCR and NOTAM when submitted by the Airport in accordance with their procedures. Kamloops FIC will disseminate AMSCR and NOTAM onto the Aeronautical Fixed Telecommunication Network (AFTN) when submitted by the airport.

Penticton Flight Service Specialists have the responsibility to monitor conditions and criteria as set out in **Section 4.6 – Condition Change Advisory**.

Penticton Airport Contact information is included in:

- Appendix A – Penticton Airport Contacts
- Appendix D – Memo – Penticton Airport 2024/2025 Winter Operations Maintenance Call-out Procedures (Also faxed to Penticton FSS)

2.3 Airlines and their Service Providers

Airlines and their Service Providers are responsible for the safe movement of passengers to and from the Air Terminal Building and aircraft, and the reporting of hazardous conditions to the Airport Manager.

Airlines and their designated agents are responsible for parking of aircraft on the apron in accordance with directives issued by the Airport Manager.

If there are flight delays or irregular operations (IROPS), the airline should inform the Airport Manager and/or Airport Maintenance and Operations personnel to respond accordingly.

Airlines and their Service Providers are responsible for snow removal within their operational areas. E.g. pathways to/from aircraft for passengers; doorways, pathways and surfaces used for the passage of baggage equipment, etc.

Airlines and their Service Providers are responsible for the proper storage of ground handling equipment on the apron and the parking areas. Equipment is to be removed or cleared from the apron during and in anticipation of a snow event.

3.0 Resources

3.1 Equipment

Snow and ice removal can be achieved through a combination of plowing, sweeping, blowing, and hand shovelling techniques to achieve a safe operating surface.

Heavy and light snow removal equipment and machinery utilized at the Penticton Airport include, but are not limited to:

- Snow mauler with snow plow blade
- Snow plow trucks with plow blades
- Runway sweepers
- Snow blower
- Dual agent spreader for dry and liquid de-icing chemicals
- Loaders with snow attachments: plow blade, sweeper, snow pusher
- Skid steer with snow attachments
- Other small equipment with snow attachments

Penticton Airport personnel must follow Safe Work Practices and Standard Operating Procedures for the use of all machinery and equipment.

3.2 Personnel and Schedules

Airport Maintenance and Operations Specialists conduct daily airfield and groundside checks during the winter season. Maintenance staff are on duty during standard working hours; call-out coverage occurs after hours, during weekends and holidays.

During Winter Operations (November 1, 2024 until approx. March 31, 2025), the Penticton Airport Maintenance and Operations Department hours are:

November 1 – March 31: (subject to change based on commercial flight schedule)

- **Mon to Fri:** 07:00 – 17:45
- **Sat & Sun:** Standby coverage
 - 1.5 hours prior to scheduled/commercial aircraft arrival until flight departure
 - As scheduled/commercial flights are not consistent throughout the season, we ensure there is coverage, at minimum, 1.5 hours prior to scheduled flight arrival time

As the flight schedule changes frequently, formal notification will be provided should there be any amendments to scheduled onsite coverage.

3.3 Communication

Airport Maintenance and Operations personnel and the Airport Manager use portable handheld UHF radios and cellular phones to communicate with each other.

Communication between the Airport Maintenance and Operations personnel and Flight Service Station staff during winter operations are conducted over the phone and on VHF Ground Frequency 121.9 MHz.

3.4 Ice Control Agents

Ice conditions will be monitored, and the runway is maintained with manual clearing and chemical agents.

Chemicals used for ice control on airside areas include solid Urea and liquid Potassium Acetate that are applied using a dual agent truck mounted spreader.

Both airside ice control agents are in conformance with the standards set out in Advisory Circulars:

- AC 300-005 – Changes to Runway Surface Condition Reporting
- AC 302-014 – Runway Ice Control Chemicals

Potassium Acetate is also in conformance with the latest version of the Society of Automotive Engineers (SAE) – Aerospace Materials Specifications (AMS). Failure to use ice control chemicals that meet the SAE specifications may result in damage to aircraft components.

Urea is the primary ice control agent used on groundside pavement areas such as roadways and parking lots.

A small amount of commercial ice melt is used in specific groundside walkways/sidewalks areas only. It is distributed via a hand spreader in limited quantities, and there is no risk of commercial ice melt being tracked onto airside pavements.

Application of ice control chemicals is guided by continuous monitoring of surface conditions.

Sand and salt are not used at the Penticton Airport.

3.5 Lines of Authority

The following are the lines of authority in respect to the Penticton Airport winter maintenance plan:

1. Simon Barbour, Airport Manager, 250-770-4414
2. Richard Olson, Operations & Maintenance Supervisor, 778-392-7684

4.0 Surface Condition Reporting

4.1 Global Reporting Format (GRF)

The Global Reporting Format (GRF) utilizes a consistent method to report runway surface conditions and consists of five fundamental elements:

- (a) Aircraft movement surface condition report (AMSCR) and Runway Surface Condition (RSC) NOTAM;
- (b) Runway condition assessment matrix (RCAM);
- (c) Runway condition code (RWYCC);
- (d) Runway surface conditions; and
- (e) Runway surface descriptions.

See Appendix C: Sample of TRACR-NG GRF Airfield Condition Report and CRFI Ticket

4.2 Aircraft Movement Surface Condition Report (AMSCR)

For the 2024/2025 Winter Operations season, the Airport Maintenance and Operations schedule is being determined on a month-to-month basis as per the flight schedules that are being submitted by the air carriers.

When contaminants are present on a movement area, an Airport Maintenance and Operations Specialist will report an AMSCR, at a minimum:

- At the commencement and end of published hours:
November 1 – March 31:
 - **Mon to Fri:** 07:00 – 17:45
 - **Sat/Sun:** Approximately 1 hour prior to scheduled/commercial aircraft arrival
 - Updates to the schedule will be provided to Penticton FSS
- Every 8 hours at a minimum during the published reporting hours. The validity period of an AMSCR should not exceed 8 hours for airports reporting in RWYCCs, unless the surface conditions are being monitored;
- Following any aircraft accident or incident on the runway;
- Whenever the cleared runway width falls below full width;

- Reporting of the runway surface conditions shall continue until the runway is no longer contaminated. When this occurs, the airport operator will issue an AMSCR that states the runway is "wet" or "dry" as appropriate;
- Ice control chemicals are applied or removed from a runway;
- The runway lights are obscured or partially obscured by contaminant;
- As per required published minimum inspection frequency;
 - (a) When a significant changes occurs:
 - (i) Any change in the CRFI of 0.05 or more;
 - (ii) Any change in the contaminant type;
 - (iii) Any change of 20% or more in the reportable contaminant coverage;
 - (iv) Any change in contaminant depth as described in table below; and
 - (v) Any other information, which according to assessment techniques, is considered to be significant. For example, following the application or removal of sand or chemicals; following snow removal or sweeping; changes in conditions caused by rapid increases or decreases in temperatures.

Contaminant	Valid depth values to be reported	Significant change
STANDING WATER	¼ inch, then assessed value	1/8 inch
SLUSH	1/8 inch, then assessed value	1/8 inch
WET SNOW	1/8 inch, then assessed value	¼ inch
DRY SNOW	1/8 inch, then assessed value	¾ inch

Notes:

- 1) For *STANDING WATER*, ¼ inch is the minimum depth that can be reported. (When the water depth is 1/8 inch or less, the runway is reported to be *WET*).
- 2) For *SLUSH*, *WET SNOW*, and *DRY SNOW*, 1/8 inch is the minimum depth which can be reported.

An AMSCR (and CRFI) is valid for a maximum 8 hours during the Penticton Airport’s published reporting hours. (See 4.2 for RSC NOTAM validity within NAV CANADA’s database.)

Other reported runway condition information includes:

- (a) Treatments applied to the runway surface:
 - CHEMICALLY TREATED
- (b) Snow drifts, windrows or snowbanks on the runway;
- (c) Other localized conditions;
 - Ice patches;
 - Compacted snow patches; and
 - Standing water patches
- (d) Snowbanks adjacent to the runway; and
- (e) Runway remarks.

The AMSCR identifies the runway surface condition for the CRFI measurement if required. The remarks section of the AMSCR identifies the date and time of the next planned observation. If significant patches of contaminants cause lower readings than the average, their distance from the threshold of one end of the runway is reported in the remarks section of the AMSCR.

Note. – *Only two (2) contaminants can be listed in the reporting body. Any additional contaminants or observations will be contained within the Remarks section.*

The designated Airport Maintenance and Operations Specialist that is on standby after hours will monitor the weather forecast for low temperatures and may call Penticton FSS to verify actual airport temperature and conditions when necessary.

4.3 AMSCR > Runway Surface Condition (RSC) NOTAM

As per Advisory Circular 300-019 Issue 02, the following order of reporting in runway thirds applies to a complete RSC NOTAM:

1. NOTAM information;
2. RSC information including:
 - (a) Runway in use designator, when reporting by thirds (e.g. RSC 33);
 - (b) Runway Thirds identified as: Section A (Touchdown), Section B (Midpoint), and Section C (Rollout)
3. Surface conditions for each runway, as applicable:
 - (a) RWYCC for each runway third (where applicable);
 - (b) Condition or contaminant(s) within the cleared width: percent coverage, depth (if applicable);
 - (c) Cleared width (if applicable);
 - (d) Snow drifts, windrows and/or snowbanks on the runway (where applicable);
 - (e) Localized conditions (where applicable);
 - (f) Treatments (where applicable);
 - (g) Conditions for remaining width (where applicable);
 - (h) Snowbanks adjacent to runway (where applicable);
 - (i) Runway remarks (where applicable); and
 - (j) RSC validity time report in the “from-to” format starting with the word VALID. (e.g. VALID FEB 04 1500 – FEB 04 2300).
4. CRFI Header: ADDN NON-GRF/TALPA INFO;
5. CRFI readings for each runway as applicable;
6. Taxiway conditions;
7. Apron conditions; and
8. General remarks, including next scheduled time of observation (where applicable).

Where possible, the following terminologies are used when describing runway surface conditions in an AMSCR:

- a. Compacted snow
- b. Dry
- c. Dry snow
- d. Dry snow on top of compacted snow
- e. Dry snow on top of ice
- f. Frost
- g. Ice
- h. Slippery when wet
- i. Slush
- j. Slush on top of ice
- k. Standing water
- l. Water on top of compacted snow
- m. Wet
- n. Wet ice
- o. Wet snow
- p. Wet snow on compacted snow
- q. Wet snow on top of ice
- r. Chemically Treated Runway

An Airport Maintenance and Operations Specialist will disseminate the AMSCR via the NAV CANADA NOTAM Entry System (NES) online reporting system where they are then known as an RSC NOTAM.

RSC NOTAM's will have a maximum validity of 8 hours (this is the ICAO standard). The RSC NOTAM will be removed from the system after 8 hours or the posted validity period has expired.

The Airport Maintenance and Operations personnel who conducts the inspection will record the runway surface condition and Canadian Runway Friction Index (CRFI) (if required) information using the TRACR-NG GRF system. The TRACR-NG GRF system is compatible with and transmits to NAV CANADA's NES system.

When the inspection results have been submitted, the TRACR-NG GRF system distributes reports via e-mail to the Airport Manager and each TC employee included in the distribution list, and NES sends a copy to Penticton FSS.

If TRACR-NG GRF and/or NES system(s) are not operational, the AMSCR will be faxed to Kamloops Flight Information Centre (FIC) at (250) 376-9347.

Additionally, time constraints created by Snow and Ice Control events (SNIC) may necessitate providing verbal condition report to Penticton FSS via Ground Frequency 121.9 MHz. This will remain in effect until an AMSCR can be promulgated through TRACR-NG GRF & NES.

YYF now utilizes the TRACR-NG GRF platform which is web based. All reports are stored on this platform and can be accessed via the TRACR-NG GRF Dashboard. Additionally, the reports are saved in VORTEX.

The Airport Maintenance shop shall retain the hard copy printout provided by the electronic recording decelerometer. If the NES is offline, the AMSCR will be completed as per usual through TRACR-NG GRF.

4.4 Runway Condition Assessment Matrix (RCAM) and Runway Condition Code (RWYCC)

Runway Condition Assessment Matrix (RCAM) is a method by which the airport operator determines a preliminary Runway Condition Code (RWYCC) for each runway third is based on type and depth of contaminant, outside air temperature (where applicable) and whenever **water, snow, slush, ice** or **frost** is present on the runway surface.

See Appendix G for the RCAM.

RWYCC represent the runway condition description based on defined terms and increments. In the event of full width of the runway is not cleared, the RWYCC will be determined based on the contaminants present in the cleared portion of the runway (typically centre 100 feet).

When a runway condition information is reported in thirds, a RWYCC is to be reported.

RCAM consists of a Runway Surface Description and a RWYCC. The Runway Surface Descriptions in each category are linked to the corresponding RWYCC based on their effect on aeroplane braking performance.

Runway Surface Description column of the RCAM lists:

- (a) The contaminants on the runway (e.g. slush, dry snow, wet snow, etc.); and
- (b) Runway surface conditions if a runway is dry, wet or slippery when wet.

Downgrade Assessment Criteria

Airport operator shall consider downgrading RWYCC when CRFI measurements (if available), vehicle deceleration or directional control observations, pilot report(s), local knowledge and/or other information reveal that the runway surface is more slippery than the preliminary RWYCC indicated.

When downgrading RWYCC, the Assessment Criteria includes:

- (a) CRFI Range;
- (b) Vehicle Deceleration or Directional Control Observation; and
- (c) Pilot Braking Action
 - A pilot report (PIREP) of braking action reflects the pilot's assessment of the available wheel braking

Upgrade Assessment Criteria

Under very cold conditions, typically below -15°C , frozen contaminants may exhibit a higher degree of friction than indicated in the RCAM. In these circumstances, upgrading the RWYCC may be possible. When a RWYCC has been upgraded, the information must be included in the runway remarks.

***Note.** – A preliminary RWYCC of 2, 3, 4 or 5 cannot be upgraded. The airport operator may only upgrade a preliminary RWYCC of 0 or 1 up to but no higher than a RWYCC of 3, when all requirements in Advisory Circular 300-019 Section 6.8 are met.*

4.5 Friction Measurement

A decelerometer is used to measure the rate of deceleration to determine the CRFI. The decelerometer is operated, maintained, and calibrated in accordance with the manufacturer's instructions. One decelerometer is mounted in the Penticton Airport's Staff Airfield Inspection Vehicle. The Inspection Vehicle will be maintained in accordance with the Standards identified in CARs 302.416 (6) (a)(c)

The Penticton Airport provides Canadian Runway Friction Index (CRFI) readings in accordance with **CARs 302.416 (1)**:

- a. Carry out the measurements for the purposes of determining CRFIs in accordance with section 322.416 *Friction Measurement of Standard 322 Airport Winter Maintenance (2020-05-15)*;
- b. Provide the CRFIs to Penticton FSS in accordance with subsection 322.411(2)(d) of *Standard 322*: immediately forward CRFI readings of 0.40 or less; and

Maintain the accuracy of the **equipment referred** to in *Standard 322 Section 322.416* of those standards in accordance with that section.

Measurements of the rate of deceleration are obtained at intervals not greater than 300 metres within 10 metres and on both sides of the runway centreline at that distance from the centreline where the majority of aeroplane operations take place.

The CRFI is measured and averaged for each third of the runway length in the report. CRFI readings are documented with the date and time of the test, the CRFI test results, as well as the surface condition, temperature, type of equipment, vehicle identification and operator. Alternating side method is not utilized at Penticton Airport as an approved method of Friction Measurement.

Pursuant to subsection 302.416(1) of the Canadian Aviation Regulations, the operator of an airport shall report CRFI in accordance with the following requirements:

- 1) For runways greater than or equal to 1829 m in length:
 - a) the measurements of the rate of deceleration taken in accordance with subsection (2), for each third of the runway length, shall be averaged to obtain a CRFI reading for each third of the runway length,
 - b) CRFI readings shall be reported for each third of the runway length,
 - c) the runway thirds shall be referred to in the direction of the runway end in use:
- 2) Touchdown
- 3) Midpoint, and
- 4) Rollout;

Pursuant to paragraph 302.416(1)(c) of the Canadian Aviation Regulations, the operator of an airport shall maintain the accuracy of the friction measurement equipment as follows:

- (a) the operator of an airport shall check the calibration of each instrument prior to the commencement of each winter season; and
- (b) the operator of an airport shall do the calibration of each instrument in accordance with the manufacturer's recommendation at the time of purchase.

Pursuant to subsection 302.416(1) of the Canadian Aviation Regulations, the operator of an airport shall only use vehicles that meet the following criteria:

(a) the friction test instrument used to establish the CRFI shall be mounted on the following vehicle types only:

- sedans, station wagons, intermediate or full-size automobiles,
- utility and passenger/cargo pick-up trucks, or
- mini-vans;
- **Penticton Airport utilizes a passenger/cargo pick-up truck**

(b) the vehicle's four-wheel traction or anti-lock braking system (ABS), if any, shall be disengaged while friction measurements are being taken;

(c) in order to consistently provide accurate decelerometer readings, the operator of an airport shall only use vehicles that are equipped as follows:

- all four tires are of the same type of construction,
- both front tires have matching tread configurations and both rear tires shall have matching tread configurations,
- tires are replaced when the tread wear exceeds 75%,
- wear on all four tires are the same,
- tires are inflated to the tire manufacturer's specification,

- shock absorbers are of heavy-duty type and in good condition,
- brakes are tested frequently to ensure operation in accordance with manufacturer's specifications, and
- all four tires are non-studded tires.

A CRFI reading will **only** be completed when a visual runway surface observation indicates the area within 10 metres of either side of centreline of the runway, has more than 25% of its surface contaminated with any of the following:

- Ice;
- Wet ice consisting of a thin film of water on ice;
- Compact snow;
- Slush on ice;
- Dry snow not exceeding 2.5 cm (1 inch) in depth;
- De-icing chemical solution on ice; and
- Frost.
- Chemically treated

Testing will be conducted between the hours of 07:00 – 17:45 on Monday – Friday. Saturday/Sunday, approximately 1 hour prior to scheduled/commercial aircraft arrival.. For after-hours testing call **(250) 809-6694 (Airport Maintenance duty cell)**.

As per CARs 302.417 (2) The operator of the airport shall not include friction readings in an AMSCR if those friction readings are obtained from a runway surface using a decelerometer and if:

- The runway surface is wet but there is no contaminant;
- On the runway surface there is a layer of slush but no other contaminant;
- On the runway surface there is wet snow that, when stepped on or driven on, splatters, turns to slush or results in the presence of visible water; or
- On the runway surface there is dry snow or wet snow that exceeds 2.5 cm (1 inch) in depth.

As per 322.411(2)(d) of the *Airport Standards — Airport Winter Maintenance*, the Penticton Airport will immediately forward CRFI readings of 0.4 or less to Penticton FSS.

AMSCR and CFRI remain valid for 8 hours until they are superseded or cancelled. However, the RSC NOTAM remains active in the NAV CANADA NOTAM system for 24 hours.

4.6 Condition Change Advisory

Flight Service Specialists shall advise Penticton Airport Operations and Maintenance when any of the following conditions impact the aircraft movement areas:

1. Snow removal is required for officially declared emergency or medevac;
2. Freezing precipitation occurs or is forecast in a TAF issued outside of Airport Maintenance and Operations' scheduled hours;
3. Rain or wet snow is followed by a rapidly decreasing temperature that may cause a potential runway surface freezing hazard;
4. New snow accumulation of $\frac{1}{4}$ in. (.635cm); (when the maneuvering surface previously had none/less”;
5. Heavy frost; and
6. Any other conditions that arise which demand runway surface maintenance action.

Penticton Airport Contact information is included in:

- Appendix A: Penticton Airport Contacts
- Appendix D: Memo – Penticton Airport 2024/2025 Winter Operations Maintenance Call-out Procedures

5.0 Snow Removal Priorities

Priorities are established to ensure the safe operation of the airport and meet Transport Canada's policy commitment to safety of all airport users.

5.1 Airside

Priority 1: (red)

The following airside areas shall be cleared throughout weather events to maintain the *minimum* operational capability of the airport during inclement conditions.

- The centre 100 ft. of Runway 16/34 (full length)
- Taxiway Alpha, then Bravo
- Apron/Ops stand 2 & 3) to accommodate aircraft operations, de-icing operations and passenger and cargo movement requirements
- Airside to groundside access roads, Gate 76 & 94, for emergency vehicle access
- Removal of any windrow in excess of 30 cm within the Priority 1 areas
- Localizer critical areas (> .75 metres)
- Visibility of Runway 16/34 and Taxiway Alpha and Bravo lights and visual aids
- Visibility and legibility of mandatory signs on taxiway(s) Alpha and Bravo
- Entrance and exit access to Runway 16/34, Taxiway Bravo, Apron, and Public walkways on the Apron to ATB (Arrivals, Departures and South Terminal access)

Priority 2: (green)

The following operational areas will be cleared after Priority 1 areas.

- Remaining full length width of Runway 16/34 including any windrow removal
- Remaining areas on the Apron
- Taxiways Charlie and Delta, including entrance and exit access
- Visibility of Taxiway Charlie and Delta lights
- Visibility and legibility of mandatory signs on taxiway(s) Charlie and Delta
- Airside access to leased tenant areas
- Operational areas around Penticton Airport Operations and Maintenance facilities

Priority 3: (blue)

The following airside areas to be cleared after priority 2 areas.

- Pre-threshold areas so that it does not interfere with the operation of aeroplanes. Clearing will be in accordance with CARs 322.413 Diagrams I and II see Appendix I
- Runway and taxiway shoulder areas in accordance with CARs 322.414.
- Apron shoulder areas
- All other movement areas not included in Priority 1 and 2
- Remaining airside signage and lights.

See Appendix H for Priority Snow Removal Map

5.2 Groundside

Priority 1: (red)

In order to maintain safe access to the airport during a SNIC event, groundside areas shall be cleared of snow on a continuous basis during a SNIC event as required:

- Airport Road from the Airport Terminal and Maintenance buildings to Highway 97
- Air Terminal Building and Fire Hall sidewalks and entrance doorways
- Airside to groundside access roads, Gate 76 & 94, for emergency vehicle access
- Personnel gates

Priority 2: (green)

Other areas cleared during inclement conditions dependant on operational requirements and staff availability:

- All Public Parking Lots
- Remaining groundside roads, employee parking lots and pedestrian walkways

Priority 3: (blue)

- Areas used for snow dumps may be cleared after the inclement conditions have passed.

See Appendix H for Priority Snow Removal Map

While every effort will be made to ensure the air and groundside priority areas are addressed as outlined above, there may be occasion when this may be altered due to operational requirements. The Airport Maintenance and Operations Specialists will coordinate and communicate any deviations from the priorities as appropriate.

5.3 Snow Accumulation on or Adjacent to Threshold Areas

302.413 The operator of an airport shall prevent snow that has accumulated on or adjacent to threshold areas from interfering with the operation of aeroplanes by clearing and banking the snow in a manner that meets or exceeds the specifications set out in section 322.413 of the Airport Standards — Airport Winter Maintenance.

322.413 Snow Accumulation on or Adjacent Threshold Areas

The airport operator shall not permit snow to accumulate in a manner that interferes with the operation of aeroplanes, in the case of pre-threshold areas

See appendix I

(a) Width – the width of the runway plus the profile outlined in Diagram I

(b) Length – the distance from the end of the runway established in accordance with Diagram II and as follows:

- 30 m for non-instrument runways less than 800 m in length, and
- 60 m for all other runways, and
- Slope – the height of snow, ice or any other object not to exceed a plane having an upward slope established in accordance with Diagram II and as follows:

Runway length (m)	Maximum Snow Accumulation Slope (%)
less than 1200	2.0
1200 to 1799	1.5
1800 and greater	1.25

Penticton YYF falls under 1800 and greater

5.4 Runway and Taxiways

Whenever possible, runways and taxiways are cleared to a dry surface for their full width. If at any time the cleared width falls below full width, Airport Maintenance & Operations personnel will update the RSC NOTAM. If possible, clearing takes place in a manner that allows for the continuous operation of the runway and taxiways during snow removal.

During snow clearing operations, Airport Maintenance personnel shall not permit snow accumulations that may interfere with the operation of an Aeroplane in Runway and Taxiway shoulder areas. Any snow accumulation will be within the specified guidelines outlined in Diagram I – see Appendix I

5.5 Apron

Clearing sufficient Apron area to accommodate aircraft operations, passenger, cargo movement requirements, de-icing, and entrance and exit access.

5.6 Edge Lights & Pre-Threshold Areas

These areas are cleared to Transport Canada standards to provide for safe winter operations at the airport.

5.7 Visual Aids

Snow is removed from these areas when it provides an obstacle to a correct approach slope reading. Removal is usually done during clean-up operations.

5.8 Windrows

Windrows may be permitted on maneuvering areas to a maximum height of 30 cm. All efforts will be made to limit the time frame windrows will be on maneuvering areas. Airport Maintenance & Operations personnel will update the RSC NOTAM when windrows are created on maneuvering areas. Windrows may be permitted on airside roads, at the discretion of the Airport Maintenance & Operations Supervisor or the Airport Maintenance & Operations personnel.

6.0 Runway Closing Authority

Due to the unpredictable nature of airport winter operations, timing actions to counter against runway surface contaminants such as snow and ice is difficult. Fluctuating temperatures and precipitation are two variables which increase the probability of surface friction compromise.

Penticton Airport Maintenance and Operations Specialists monitor for both short and long-term weather trends. The potential of an unforeseeable condition however always remains. If such a condition occurs, a response focused on priority maintenance may be required.

In extreme snow and ice conditions, the Airport Manager or their designate, reserves the right to issue a NOTAM that closes the runway to facilitate priority maintenance activities. The Airport Maintenance and Operations response would proceed in a manner designed to avoid lengthy operational delays.

7.0 Aircraft De-Icing

A Glycol Operational Management Plan (GMP) is mandatory for all operators utilizing de-icing fluids.

A GMP is to be provided to the Penticton Airport Manager annually prior to commencing de-icing operations.

It remains the responsibility of the de-icing operators to ensure that **no** de-icing material accumulates on surface areas or enters surface water drainage systems. De-icing operations are to occur on the apron only. Clean up must be accomplished in accordance with applicable environmental acts and regulations.

Note. – *De-icing operators are to keep accurate records of glycol usage and provide monthly usage reports to the Airport Manager during the winter season.*

Glycol Operational Management Plan refers to RDIMS #[12404623](#)

8.0 Unscheduled Flights and After-Hours Call-Out Procedures

It is recommended that as much notice as possible be provided to the Airport Manager if an airline, air operator or pilot has an unscheduled flight into the Penticton Airport. A minimum of 2 hours prior notification is required.

User Fees will be levied to customers requiring Airport Maintenance and Operations personnel to provide services outside of published reporting hours. This does not include scheduled commercial service, declared emergencies, Air Ambulance and/or Search and Rescue (SAR) activities.

For unscheduled flights and pilots requiring services, RCR hours are published in the CFS and amended by NOTAM as required. The RCR requires 2 hours prior notice via the published phone number. This is the recommended minimum time to enable maintenance to conduct runway clearing. Penticton FSS will advise the Airport if a MEDEVAC or aircraft in known emergency state requires service.

References:

- Appendix A: Penticton Airport Contact List
- Appendix E: Penticton Airport User Fee Schedule

9.0 Training

Each year before the start of winter operation, review the Airport Winter Operations Plan with all maintenance staff on any amendments that have been made to the plan since the previous winter.

The Airport Operator must maintain all training records for 5 years after the day on which the latest training was received.

NAV CANADA ILS Snow Clearing Training

Annual NAV CANADA technical services led training session for all maintenance staff.

AMSCR-GRF Training

Airport Operators are responsible for ensuring that their personnel are adequately trained, so that they can perform their duties. It is recommended that airports develop a training program for all personnel who report runway conditions.

Training program should include:

1. Initial training; and
2. Annual Recurrent training

Penticton Airport initial training consists of engaging a consultant for the full AMSCR-GRF training every 4 years. AMSCR-GRF certification can only be completed after successful completion of the Penticton Airport AVOP D permit testing which includes, safe vehicle operation, radio communication procedures and airport layout familiarization.

302.418 (1) The operator of an airport shall not assign duties in respect of its airport winter maintenance plan to a person unless that person has received training from the operator on those duties and on the matters set out in section 322.418 of the Airport Standards — Airport Winter Maintenance.

(2) The operator of the airport shall not assign supervisory duties in respect of its airport winter maintenance plan to a person unless that person has received training on those duties and on the content of the plan.

(3) Each year, before the start of winter maintenance operations, the operator of the airport shall provide persons who will be assigned duties in respect of its airport winter maintenance plan with training on any amendments that have been made to the plan since the previous winter.

(4) Training provided under this section shall be competency-based with an emphasis on performance, and shall include written or practical examinations.

Annual recurrent training includes the following:

- Review of the Advisory Circular 300-019
- Transport Canada GRF training session PowerPoint modules
- CRFI decelerometer review and successful completion of practical skills checklist
- TRACR-NG GRF review
- Snow and Ice Control for Airside Lighting, Markers and Signage as per 322.418 of the Airport Standards — Airport Winter Maintenance
- Successful completion of a competency based written knowledge test
- All tasks included in annual recurrent training will be documented in the Vortex/training module as proof of completion

References: Advisory Circular 300-019, CARs 302.406, 302.418, 302.419, 322.418

Appendices

Appendix A: Penticton Airport Contact List

Penticton Airport Maintenance and Operations	Published Hours	(250) 770-4425
	After Hours and Statutory Holidays	(250) 809-6694
Penticton Airport Maintenance and Operations Supervisor: Richard Olson	Cellular	(778)392-7684
	Email	richard.olson@tc.gc.ca
Penticton Airport Airport Manager: Simon Barbour	24 hrs / 7 days a week	(250) 809-4596
	Email	simon.barbour@tc.gc.ca
Superintendent of Airport Operations and Technical Services: Lance Duncan	Cellular	(250) 460-2468
	Email	Lance.duncan@tc.gc.ca
Penticton Airport Manager, Resource Management: Amanda Hazelton	Office	(250) 770-4416
	Cellular	(250) 328-8629
	Email	amanda.hazelton@tc.gc.ca

Appendix B: Terminologies and Abbreviations

AIRCRAFT MOVEMENT SURFACE CONDITION REPORT (AMSCR): A report that details the surface conditions of all movement areas at an airport including runways, taxiways and aprons.

AERONAUTICAL FIXED TELECOMMUNICATION NETWORK (AFTN): A world-wide system of aeronautical fixed circuits provided, as part of the Aeronautical Fixed Service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communications characteristics.

CHEMICALLY TREATED: Chemical treatment on the runway.

CLEARED WIDTH: The narrowest portion of the runway width that has been cleared of loose contaminants.

COMPACTED SNOW: Snow that has been compacted into a solid mass such that aeroplane tires, at operating pressures and loadings, will run on the surface without significant further compaction or rutting of the surface.

CONTAMINANT: Material that collects on a surface including standing water, slush, snow, compacted snow, ice or frost, sand and ice control chemicals.

CANADIAN RUNWAY FRICTION INDEX (CRFI): The average of friction measurements taken on runway surfaces on which freezing or frozen contaminants are present.

DRY: A surface condition that is free of visible moisture and has no observed contaminants.

DRY SNOW: Means snow that does not contain sufficient water to allow the crystals to stick together or bond to a surface. (Dry snow, when compressed, falls apart, and a snowball cannot readily be made from it.)

DRY SNOW OVER COMPACTED SNOW: Snow that is neither compacted on nor bonded to a surface, which has fallen on snow that has been compacted.

DRY SNOW ON TOP OF ICE: Snow that is neither compacted on nor bonded to a surface, which has fallen on to an ice surface.

FROST: Ice crystals formed from air borne moisture condensing on a surface whose temperature is below freezing. Frost differs from ice in that the frost crystals grow independently and therefore have a more granular texture.

Note 1: *Below freezing refers to air temperature equal to or less than the freezing point of water (0°C).*

Note 2: *Heavy frost that has noticeable depth may have friction qualities similar to ice and downgrading the runway condition code accordingly should be considered. If driving a vehicle over the frost does not result in tire tracks down to bare pavement, the frost may be of sufficient depth to consider a downgrade of the runway condition code.*

GLOBAL REPORTING FORMAT (GRF): GRF is an internationally accepted concept which utilizes a consistent method to report runway surface conditions.

ICE: Water that has frozen on a surface and includes the condition commonly known as “black ice” and the condition in which compacted snow has turned into a polished ice surface.

ICE CONTROL CHEMICALS: Chemicals used to prevent ice formation, to prevent ice from bonding to a surface or to break up or melt ice on a surface.

LOOSE CONTAMINANTS: Those contaminants that an aeroplane's tire will not remain on the surface of without breaking through. Water, slush, wet snow, and dry snow are loose contaminants. For loose contaminants, the depth of the contaminant can affect both the aeroplane’s acceleration and deceleration capability.

NOTAM: A notice distributed by means of telecommunications containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

NOTAM Entry System (NES): The NOTAM Entry System (NES) is a web application which allows the direct entry of NOTAM by an accountable source.

PERCENTAGE COVERAGE OF CONTAMINANT: The estimated amount of each contaminant present on surface of the runway and reported as a percentage (%) of the assessed surface.

PRIORITY 1 AREA: An airside area that, based on prevailing winds or operational requirements, is necessary to maintain the operational capability of an airport.

PRIORITY 2 AREA: An airside area that is necessary to provide additional runway availability should wind conditions or operational requirements change.

PRIORITY 3 AREA: An airside area that is not a priority 1 area or priority 2 area.

RUNWAY CONDITION ASSESSMENT MATRIX (RCAM): A matrix allowing for the assessment of runway condition code from a set of observed runway surface condition(s).

RUNWAY CONDITION CODE (RWYCC): A number for describing the runway surface condition.

RUNWAY SURFACE CONDITION (RSC): The portion of the AMSCR which reports the surface condition of the runway.

RSC NOTAM: A special series NOTAM notifying the presence of hazardous conditions due to contaminants on runways by means of a specific format. They are issued under Series S, A or B.

SAND: Small particles of crushed angular mineral aggregates or natural sand material used to improve runway surface friction levels. **Sand is not used at CYYF.*

SIGNIFICANT CHANGE: Material change to the runway surface condition which may impact the operational performance of the surface. Significant changes can include: changes in type of condition or contaminant, such as from dry snow to wet snow; measurable changes in depth of condition or contaminant; following the application or removal of sand or chemicals; following snow removal or sweeping; changes in conditions caused by rapid increases or decreases in temperature.

SLIPPERY WHEN WET: A wet runway where the surface friction characteristics of the runway have been determined to be degraded.

Note 1. – *A runway or any portion of a runway is deemed as having low friction (e.g. due to rubber accumulation, surface texture degradation, etc.) when the friction measurements (as measured by a continuous friction measuring device in accordance with AC 302-017) are below the minimum coefficient of friction specified in TP312.*

SLUSH: Partially melted snow or ice, with a high-water content, from which water can readily flow. (Slush will spatter if stepped on forcefully, and water will drain from slush when a handful is picked up.)

SLUSH ON TOP OF ICE: Partially melted snow or ice on an ice surface.

SNOW BANK: A heap or mound of snow created mechanically that is higher than the surrounding snow cover, and is located:

- (i) next to or on the edge of a runway or taxiway; and/or
- (ii) next to or on the edge of the cleared area of a runway or taxiway

Note. – *‘Snowbank’ is used to describe accumulations which will remain over longer time periods; see ‘Windrow’ for shorter-term accumulations, such as those resulting from clearing operations in progress.*

STANDING WATER: Water having a depth of more than 1/8 inch (3mm).

TAKE-OFF AND LANDING PERFORMANCE ASSESSMENT (TALPA): A method of reporting runway conditions (which relates to aeroplane performance), developed by the US FAA, which is intended to reduce the risk of runway excursions.

TRACE (TR): The presence on a surface of a contaminant that can be visibly detected but cannot be readily measured.

WATER ON TOP OF COMPACTED SNOW: Water on top of snow that has been compacted.

WET: A surface condition where there is any visible dampness or water up to and including 1/8 inch (3mm) deep.

WET ICE: Ice with water on top of it or ice that is melting.

WET SNOW: Snow that will stick together when compressed but will not readily allow water to flow from it if squeezed. (Wet snow contains enough water to be able to make a well-compacted, solid snowball, but water will not squeeze out.)

WET SNOW ON TOP OF COMPACTED SNOW: Compressed snow, that water does not easily flow from when compressed, on snow that has been compacted.

WET SNOW ON TOP OF ICE: Compressed snow, that water does not easily flow from when compressed, on an ice surface.

WINDROW: A ridge of material, such as snow or gravel, created by airside maintenance equipment.

Note 1. – *A windrow is typically temporary in nature, having been formed during clearing operations with the intent of subsequent removal in the near-term (either ploughed/swept to the runway edge or graded for gravel runways).*

VORTEX: An electronic software platform designed specifically for airports and used for daily airport operations and safety management

Appendix C: Sample of TRACR-NG GRF Airfield Condition Report and CRFI Ticket

SAMPLE**TRACR-NG GRF - Runway Condition Report**

Airport Name: Penticton Airport
 Airport Code: CYYF
 Report #: 266b9abf
 Operator: Gary Wilson (gwilson)
 Date: 2021-10-25 12:24:37Z

Condition Report

Surface	Summary	Submitted
16-34	Reported Width 148' (Full) Section A: Contaminants: 100% WET, RWYCC 5 Section B: Contaminants: 100% WET, RWYCC 5 Section C: Contaminants: 100% WET, RWYCC 5	2021-10-25 12:23:53Z
ALPHA	Contaminants: WET	2021-10-25 12:22:03Z
BRAVO	Contaminants: WET	2021-10-25 12:22:03Z
CHARLIE	Contaminants: WET	2021-10-25 12:22:03Z
DELTA	Contaminants: WET	2021-10-25 12:22:03Z
APRON	Contaminants: WET	2021-10-25 12:22:17Z

C44F
 AIRPORT

34-16
 RUNWAY

Craig/Lance
 OPERATOR

DATE: 22/10/21
 TIME: 12:56
 LEVELLED: 12:45

STOP	READING
1	0.58 ****
2	AUTO
3	0.65
4	0.63
5	0.64
6	0.70
7	0.71
8	0.74
9	0.66
10	0.67
11	0.67
12	0.70
13	0.69
14	0.63
15	0.64
16	0.65
17	0.64
18	0.67

AVERAGE 0.66

FIRST	1/3	AUG	0.64
SECOND	1/3	AUG	0.65
THIRD	1/3	AUG	0.69

START of season
 All equip working

RSC 16 5/5/5 100 PCT WET, 100 PCT WET, 100 PCT WET. VALID OCT 25 1223 - OCT 25 2023.
 RSC 34 5/5/5 100 PCT WET, 100 PCT WET, 100 PCT WET. VALID OCT 25 1223 - OCT 25 2023.

ADDN NON-GRF/TALPA INFO:
 CRFI 16 NR/NR/NR.
 CRFI 34 NR/NR/NR.

RMK: TWY ALPHA, BRAVO, CHARLIE, DELTA, 202110251222, WET.
 RMK: APN APRON, 202110251222, WET.
 RMK: NEXT OBS AT OCT 25 1330.

Appendix D: Penticton Airport – Winter Operations Maintenance Call-Out Procedures Memos 2024/2025

October 15, 2024

MEMO RE: PENTICTON AIRPORT – 2024/2025 WINTER OPERATIONS

Airport maintenance call-out procedures

- The Penticton Airport's Winter Operation Schedule will commence effective November 1, 2024, with Airport Maintenance Staff providing Aircraft Movement Surface Condition Reports (AMSCRs) 7 days a week.
- For the 2024/2025 Winter Operations season, the Airport Maintenance and Operations schedule is being determined on a month-to-month basis as per the flight schedules that are being submitted by, WestJet Encore, and Pacific Coastal respectively.
- Updates to the weekend reporting schedule will be provided to Penticton FSS monthly from November 2024 – March 2025.
- An Airport Maintenance and Operations Specialist will report the surface conditions, at minimum:
 - At the commencement and end of published hours:
November 1 – March 31:
 - **Mon to Fri:** 07:00 – 17:45
 - **Sat/Sun:** Approximately 1 hour prior to scheduled/commercial aircraft arrival
 - Updates to the schedule will be provided to Penticton FSS
 - Every 8 hours at a minimum during the published reporting hours. The validity period of an AMSCR should not exceed 8 hours for airports reporting in RWYCCs, unless the surface conditions are being monitored;
- To contact the Airport Maintenance and Operations Team during scheduled working hours, please call (250) 770-4425.
- An Airport Maintenance and Operations Specialist is on-call after hours and on Statutory Holidays. They can be reached via the Penticton Airport's dedicated maintenance duty cellphone, (250) 809-6694.
- For any other emergencies, incidents or occurrences requiring immediate attention, please contact Simon Barbour, Airport Manager at (250) 809-4596 (24/7).

- Winter Operations are scheduled until March 31, 2025; however, this date may be adjusted according to weather conditions at the time.

If you have any questions or concerns, please contact Rich Olson, A/Airport Maintenance and Operations Supervisor at (778) 392-7684.

Simon Barbour

Airport Manager, Penticton Airport

Penticton Airport / Transport Canada / Government of Canada
109 - 3000 Airport Road, Penticton, BC V2A 8X1
simon.barbour@tc.gc.ca / Tel: (250) 770-4414 / Fax: (250) 770-4423

Aéroport de Penticton / Transports Canada / Gouvernement du Canada
3000 chemin Airport, bureau 109, Penticton (C.-B.) V2A 8X1
simon.barbour@tc.gc.ca / Tél: (250) 770-4414 / Fax: 250) 770-4423

Action

NAV CANADA, Penticton Flight Services Station

Info

NAV CANADA – Site Manager Kelowna & Penticton FSS
TC – Penticton Airport Manager
TC – SMS Accountable Executive – Penticton Airport
TC – Regional Safety Management Systems Officer

Appendix E: Penticton Airport User Fee Schedule

Transport Canada Programs – Pacific Region

Penticton Airport User Fees

As per the Canada Flight Supplement (CFS), a fee will be levied when Penticton Airport Maintenance and Operations Specialists are requested to provide Runway Surface Condition (RSC) reports and/or maintenance of the runway beyond published operating hours.

Penticton Airport User Fees	
Request for a Runway Surface Condition Report (RSC)	\$100.00 + GST
Request for runway, taxiway and/or apron maintenance, with updated RSC. (min. 3-hour call-out)	\$300.00 + GST
Additional hourly fee for time required beyond the original 3-hour call-out period.	\$100.00 + GST

This fee schedule applies to all requests ***except*** scheduled commercial air service, declared emergencies, Air Ambulance, and Search and Rescue (SAR) operations.

Appendix F: Penticton Airport and NAV CANADA Winter Operations Agreement

APM/FSS Agreement on Procedural/Operational Arrangements (APOA)
Airport-ANS Operational Agreement (AAOA) is currently being developed.

**AGREEMENT ON PROCEDURAL / OPERATIONAL
ARRANGEMENTS (APOA)**

THIS AGREEMENT made as of the 16th day of August 2004.

BETWEEN: • **Transport Canada operating the Penticton Airport**
(hereinafter called “**Airport Operator**”)

AND: **NAV CANADA**
a corporation incorporated under the provisions of Part II of the *Canada Corporations Act*.

WHEREAS Her Majesty the Queen in Right of Canada (hereinafter called “ Her Majesty”) has entered into an Aviation Services and Facilities Agreement (hereinafter called the “ASFA”) with NAV CANADA on the 31st day of October 1996;

AND WHEREAS Her Majesty has assigned the ASFA to the Airport Operator by an Assignment, Assumption and Release Agreement which was executed and delivered on the 31st day of October, 1996;

AND WHEREAS pursuant to the ASFA, the Airport Operator and NAV CANADA have agreed, for purposes of ensuring the continuing effective operation of the Airport and in order to fulfill the objectives and provisions of the ASFA, to supplement the ASFA by specifying certain procedural and operational arrangements as set out in the Appendices of this Agreement.

NOW THEREFORE, in consideration of the covenants and conditions contained herein, the Parties agree as follows:

1. INTERPRETATION

(a) In this Agreement, unless the context otherwise requires,

“**Agreement**” means this written agreement between the Parties, including the terms and conditions and all Appendices, as forming part of the Agreement, all as amended by written agreement of the parties from time to time;

“**Airport**” means the Penticton airport;

“**Aircraft Movement Information Agreement**” means the agreement between Her Majesty and NAV CANADA effective November 1, 1996 concerning the provision of aircraft movement

information by NAV CANADA to Her Majesty or to the Airport Operator for billing and statistical purposes;

“Airside Vehicle Operator’s Permit” (AVOP) means a document issued by the airport operator certifying that the person named therein is authorized to operate vehicles in an airside area of an airport;

“Manoeuvring Area” means that part of an airport intended for the taking off and landing of aircraft and the movement of aircraft associated with the taking off and landing of aircraft, normally referred to as runways and taxiways but excludes aprons;

“Party” means the Airport Operator or NAV CANADA and **“Parties,”** means the both of them;

“Procedural Arrangements” means the undertakings, actions or activities associated with operations at the airport as described in the Schedules to this Agreement;

“Vehicle Advisory Service” (VAS) means the communication of advice and known information to assist the airport operator in managing the movements of ground traffic on the manoeuvring areas at uncontrolled airports.

“Vehicle Control Services” (VCS) means commands and instructions to regulate and direct the movements of ground traffic on the manoeuvring areas of an airport;

- (b) This Agreement shall be interpreted as being subordinate to the ASFA. This Agreement does not constitute an amendment in writing to the ASFA under subsection 2.4 of the ASFA. In the event of any inconsistency or conflict between this Agreement, the ASFA or the Aircraft Movement Information Agreement, the inconsistent or conflicting parts or sections of this Agreement shall have no force or effect.
- (c) The headings used in this Agreement are inserted for convenience of reference only and shall not affect their interpretation;
- (d) In this Agreement, words importing the singular number include the plural and vice versa and words importing the masculine include the feminine gender and the neuter;
- (e) The following Appendices form an integral part of this Agreement:

Appendix A – Terms of Reference - Joint Airport Operator / NAV CANADA Consultative Committee.

Appendix B – Airport Site Specific Procedural / Operational Arrangements.

2. TERMINATION OF MEMORANDUM OF UNDERSTANDING

The Airport Operator acknowledges that all previous memoranda of understanding between Her Majesty and the Airport Operator with regard to the subject matter of this Agreement have not been assigned to NAV CANADA and have been subsequently terminated.

3. LIMITATION OF LIABILITY

Pursuant to NAV CANADA's obligations under this Agreement, NAV CANADA shall not be responsible or liable for any special, indirect, incidental or consequential damages of any nature or kind, including any financial losses, suffered by the Airport Operator resulting or arising from the breach of either NAV CANADA's obligations, or any actions or omissions on the part of NAV CANADA pursuant to this Agreement, except to the extent to which such loss or damage has arisen out of NAV CANADA's negligence.

Pursuant to the Airport Operator's obligations under this Agreement, the Airport Operator shall not be responsible or liable for any special, indirect, incidental or consequential damages of any nature or kind, including any financial losses, suffered by NAV CANADA resulting or arising from the breach of either the Airport Operator's obligations, or any actions or omissions on the part of the Airport Operator pursuant to this Agreement, except to the extent to which such loss or damage has arisen out of the Airport Operator's negligence.

4. GOVERNING LAW

This Agreement shall be interpreted in accordance with the laws in force in the Province of British Columbia, subject always to any paramount or applicable federal laws.

5. TERMINATION

Either Party may, with 30 days notice and in accordance with Section 7, terminate this Agreement, in all or any part, upon receipt of a written termination notice. The Parties shall continue to be bound by all parts of the Agreement not terminated by the termination notice.

6. NOTICES

All notices or other communications necessary for the purposes of this Agreement shall be in writing and shall be delivered personally or by courier, or shall be sent by registered mail or sent by facsimile or other electronic means that provides a paper record of the text of the notice, addressed to the Party for whom it is intended at the address in the Agreement or at the last address of which the sender has received notice in accordance with this section.

For NAV CANADA, all notices or other communications required by this Agreement shall be directed to the following mailing address:

Regional Manager Safety and Service Design
#300 9925-109 St

Edmonton Alberta
T5K 2J8

For the Airport Operator, all notices or other communications required by this Agreement shall be directed to the following mailing address:

Airport Manager – Transport Canada
109-3000 Airport Road
Penticton B.C.
V2A 8X1

7. AMENDMENT

Except for the termination rights under Article 6 of this Agreement, this Agreement may be amended by written agreement signed by both parties. No amendment, variation, addition, deletion, rider or other change to this Agreement, other than termination in whole or part in accordance with Article 6, shall have any force or effect unless it is in writing and unless it is signed by both parties.

8. ENTIRE AGREEMENT

The ASFA, the leases and licences pursuant to the ASFA, the Off-Airport Agreement and this Agreement set forth the entire agreement between the parties hereto concerning the subject matter hereof. No representation or warranty expressed, implied or otherwise is made by the Parties except as expressly set out in the ASFA or this Agreement.

IN WITNESS WHEREOF, the parties hereto have, through duly authorized officials, executed this Agreement effective as of the date and year first written above:

AIRPORT OPERATOR

NAV CANADA

Louise A. Noble

Print Name of Signing Officer

N.D. WHITEFORD

Print Name of Signing Officer

Louise A. Noble

Signature of Authorized Signing Officer

N.D. Whiteford

Signature of Authorized Signing Officer

August 17, 2004

Date

17 Aug / 04

Date

APPENDIX A**AIRPORT OPERATOR/NAV CANADA JOINT COMMITTEE
CONCERNING AIRPORT OPERATIONS AND REVIEW**

- In order to address operational concerns, the Parties hereby agree to establish an on-going Airport Operations Joint Committee to ensure the safety, security and effectiveness of the airport as well as, the air navigation system in support of the airport.
- The objectives of the Joint Committee include, but are not limited to:
 - (1) Providing a mechanism for the exchange of information, consultation and co-ordination related to issues of common concern including, but not limited to, the commercial exchange of services and plans for development and construction on the airport that may affect aviation safety or interfere with existing or planned air navigation facilities;
 - (2) Defining responsibilities and a process for dealing with contractor activities and to establish authorities during work site inspections and to set out a procedure for applying sanctions in cases of contractor non-compliance.
 - (3) Discussing issues associated with the Procedural / Operational Arrangements outlined in Appendix B to this Agreement as well as the requirement to amend these arrangements.
- The Joint Committee shall meet regularly. It is recommended the committee meet at least quarterly with the option of more frequent meetings at the call of either Party, as required, or in cases of urgency.
- A record of all decisions taken at the meeting will be created, signed and acknowledged by both parties within 30 days of the meeting. Composition of the committee will be decided upon locally.

APPENDIX B**PROCEDURAL / OPERATIONAL ARRANGEMENTS**

Purpose: The purpose of this Agreement between NAV CANADA and the Airport Operator is to outline certain airport specific procedural and/or operational arrangements and to designate responsibilities for these arrangements. These arrangements have been developed to assist both Parties in ensuring safe operations at the airport and may incorporate procedures related to the transfer of responsibilities from one Party to another. Transfers of responsibility that result in incremental expenditures and/or are of a commercial nature shall not be included in this Agreement.

Responsibilities:**1. Aircraft/Vehicle Advisory or Control Services**

- 1.1 Uncontrolled Airports – (airports with an Airport Advisory Service [FSS]). NAV CANADA shall provide the communication portion of a vehicle control service in order to coordinate vehicle access to the manoeuvring area of the airport during the hours of operation of the Flight Service Station. The Airport Operator is responsible for vehicle control over the entire airport premises.

- 1.2 The Airport Operator shall implement and keep in full force and effect an airside vehicle operator's permit program to ensure that all vehicle operators are qualified to operate vehicles and equipment. The Airport Operator shall not permit the operation of a vehicle on the airside area unless that person is in the possession of an Airside Vehicle Operator's Permit (AVOP), or that person is escorted or accompanied by a person who is in possession of a valid AVOP.

- 1.3 The Airport Operator shall follow and abide by Canadian Aviation Regulations and Standards with respect to the Airside Vehicle Operator's Permit (AVOP).
- 1.4 The Airport Operator shall ensure that all vehicle operators communicate with the applicable Air Traffic Control Tower or Flight Service Station regarding any vehicle movements on the manoeuvring area of the airport. The Airport Operator shall comply with Transport Canada's Airport Traffic Directives (TP 2633) and/or the draft National Airside Directive Guidelines (TP 12690).
- 1.5 NAV CANADA shall file an occurrence report with Transport Canada in case of any person operating a vehicle on the manoeuvring areas of an airport without first contacting the applicable Air Traffic Control Tower or Flight Service Station during its hours of operation.
- 1.6 The Airport Operator shall be responsible for the security of the airport perimeters including any access and control measures required by vehicles and pedestrians in order to access the airside portion of the airport.
- 1.7 In the event that NAV CANADA removes or plans to remove its on-site airport control or advisory services personnel at the airport, NAV CANADA may terminate Vehicle Control or Advisory Services with 30 days written notice.
- 1.8 NAV CANADA may, upon reasonable notice, discontinue the provision of Vehicle Control Services for reasons of aviation safety. Aviation safety reasons include, but are not limited to: a lack of airport perimeter security, incidents of non-compliance with instructions from NAV CANADA air traffic services personnel, the operation of a vehicle on the airside of the airport without a valid AVOP, or the operation of an unescorted equipment vehicle without the appropriate radio equipment on the airside of the airport. NAV CANADA will advise the Aerodrome Safety Branch of Transport Canada should Vehicle Control Services be terminated for reasons of aviation safety.
- 1.9 Except where line-of-sight interference was a pre-existing condition prior to the commencement date of this Agreement and such interference is acceptable to NAV CANADA, the Airport Operator shall ensure that any line-of-sight interference obscuring the vision of NAV CANADA personnel in the provision of Vehicle Control Services to any portion of the manoeuvring area be removed immediately. The Airport Operator acknowledges and agrees that NAV CANADA will not continue to provide a Vehicle Control Service at this airport during such time as any such interference exists.

[Indicate which of the following arrangements apply to this airport by clicking /placing an X in the appropriate box below]

2. Airport Emergency and Security Procedures

- NAV CANADA shall respond to non-routine safety, security or emergency occurrences by complying with the procedures defined in the applicable approved plans and procedures developed by the Airport Operator and described in such documents as: the Airport Emergency Plan/Procedures, the Airport Security Plan, Airport Contingency and Business Resumption Plans, Airport Fire Emergency Organization and Evacuation Orders. When requested, NAV CANADA will assist the Airport Operator in the development of such plans.
- In Aircraft Fire Fighting situations, notification and other emergency response actions shall be carried out as described in the applicable ATC or FSS MATS and/or the Airport Emergency Procedures Manual. The Airport Operator and NAV CANADA shall meet in the joint committee as described in Appendix A to this agreement to discuss any amendments or changes to these documents when changes affect the response requirements of either party.

The Airport Operator contact person(s) for the above is:
APM Penticton (250-492-6042)

NAV CANADA's contact person (s) for the above is:
NCM Penticton (250-493-5453)

3. Airport Monitoring, Reporting and Co-ordination

- NAV CANADA shall notify the Airport Operator of known safety hazards or obstructions on the movement areas of the airport. NAV CANADA will monitor the general activities on the airport and report any observations that may require corrective action, including security concerns, to the appropriate airport agency.
- NAV CANADA shall notify airport personnel of known or forecasted weather information when such weather may affect airport operations (e.g. heavy snowfall, strong winds, freezing rain, etc.).
- NAV CANADA shall notify the Airport Operator of known airport lighting and communication system malfunctions. NAV CANADA shall notify the Airport Operator, for priority action, of known equipment outages that may affect airport operations. NAV CANADA shall notify the Airport Operator of any main and/or secondary electrical power outages that are affecting air navigation operations. The Airport Operator shall notify NAV CANADA of any planned or expected power disruptions that may impact on Air Navigation operations.
- NAV CANADA shall provide notification to the Airport Operator of known information related to the carriage of hazardous cargo as described in the ATC / FSS MATS Manual.
- The Airport Operator and NAV CANADA shall co-ordinate activities of known VIP flights.

- The Airport Operator shall provide required information to NAV CANADA associated with Airport Occurrence Reports, Incident Reports and non-routine operational activities. NAV CANADA shall disseminate these reports as requested by the Airport Operator.
- The Airport Operator shall provide to NAV CANADA verification of aerodrome data for purposes of publishing such information in the Canadian Air Pilot (CAP) and the Canada Flight Supplement (CFS). A notice of verification will be provided to either the local NAV CANADA site manager at the airport or to the Aeronautical Information Service (AIS) Officer in NAV CANADA's Regional Offices on a per issue publication cycle.

The Airport Operator contact person(s) for the above is:
APM Penticton (250-492-6042)

NAV CANADA's contact person (s) for the above is:
NCM Penticton (250-493-5453)

4. NOTAM

- NAV CANADA shall disseminate airport NOTAM reports as requested by the Airport Operator.
- NAV CANADA shall disseminate Airport Operator reports of restrictions and/or obstructions (e.g., foreign object damage) on the manoeuvring areas that may affect the safety of aircraft.

5. Runway Surface Conditions/Visibility Reporting

- The Airport Operator shall provide to NAV CANADA, for transmission to aircraft, information related to the condition of the manoeuvring areas, runway surface conditions and Canadian Runway Friction Index (CRFI) reports.
- Upon** the publication of Canadian Aviation Regulations (CAR) 804.25-26/824.25-26 *Assessment and Reporting Runway Visibility* and in accordance with it, the Airport Operator will keep an up-to-date list of "qualified persons" and "service providers".

The Airport Operator will notify NAV CANADA immediately of any change in the service the "service provider" is providing.

6. Airport Lighting Equipment Operations

- NAV CANADA shall report to the Airport Operator any known airport visual aid or runway lighting problems.
- Where applicable, the Airport Operator shall delegate to NAV CANADA the authority to operate runway and / or field lighting in accordance with the ATC / FSS MATS Manual.

The Airport Operator contact person(s) for the above is:
APM Penticton (250-492-6042)

NAV CANADA's contact person (s) for the above is:
NCM Penticton (250-493-5453)

7. Aircraft Movement Information - Data Transfer

- NAV CANADA shall provide information related to aircraft movements in such detail, form, scope and frequency as set out in the Aircraft Movement Information Agreement between Her Majesty and NAV CANADA. NAV CANADA shall provide such information directly to the Airport Operator upon receipt of a written notice from Her Majesty.
- NAV CANADA shall provide such information by conforming to the following locally agreed-to practices and schedules: Monthly data transferred to computer disk and forwarded to airport authority once at each month end.

8. Environmental Management

- NAV CANADA shall report any known bird or wildlife hazards on the manoeuvring areas to the appropriate Airport personnel for action.
- NAV CANADA shall relay reports provided by aircraft pilots of spills of hazardous materials to the appropriate airport personnel for action.

The Airport Operator contact person(s) for the above is:
APM Penticton (250-492-6042)

NAV CANADA's contact person (s) for the above is:
NCM Penticton (250-493-5453)

9. Land Use Planning

- NAV CANADA shall participate with the Airport Operator in undertaking airport land use planning for purposes of such matters as to line-of-sight obstructions, electronic interference with air navigation equipment, development of flight paths, resolution of light pollution issues and noise management plans.

10. Noise Management

- Where the Airport Operator has established an airport noise management committee, NAV CANADA shall appoint a representative to the committee and participate in any consultative process undertaken by such a committee. If required, NAV CANADA will provide specific data related to aircraft movements pursuant to the appropriate noise data agreement.

11. Miscellaneous Procedural / Operational Arrangements

Notice to Vehicles: Whereas the Airport Operator is responsible for vehicle control at the airport and whereas the Airport Operator has permitted certain vehicle operations within 200 feet (60 meters) of the runway surface edge for the purpose of airfield maintenance, Nav CANADA will, upon request from aircraft operators, direct that such vehicles be moved to a safer location.

Appendix G: Runway Condition Assessment Matrix (RCAM)

Assessment Criteria		Downgrade Assessment Criteria (Control/Braking Assessment Criteria)		
Runway Surface Description	RWYCC	CRFI Range	Vehicle Deceleration or Directional Control Observation	Pilot Braking Action
• DRY	6		-	-
• FROST • WET (The runway surface is covered by any visible dampness or water up to and including 1/8 inch (3mm) depth) Up to and including 1/8 inch (3mm) depth: • SLUSH • DRY SNOW • WET SNOW	5	0.39 to 0.35	0.40 or higher Braking deceleration is normal for the wheel braking applied AND directional control is normal	GOOD
-15°C and Colder outside air temperature: • COMPACTED SNOW	4		0.34 to 0.30 Braking deceleration OR directional control is between Good and Medium	GOOD TO MEDIUM
• SLIPPERY WHEN WET (wet runway) • DRY SNOW or WET SNOW (Any depth) ON TOP OF COMPACTED SNOW Greater than 1/8 inch (3mm) depth: • DRY SNOW • WET SNOW Warmer than -15°C outside air temperature: • COMPACTED SNOW	3	0.29 to 0.20	0.19 or lower Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced	MEDIUM
Greater than 1/8 inch (3mm) depth: • STANDING WATER • SLUSH	2		Braking deceleration OR directional control is between Medium and Poor	MEDIUM TO POOR
• ICE	1		Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced	POOR
• WET ICE • SLUSH ON TOP OF ICE • WATER ON TOP OF COMPACTED SNOW • DRY SNOW or WET SNOW ON TOP OF ICE	0		Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain	LESS THAN POOR / NIL

Note 1: CRFI information presented in the RCAM provides an objective measure of the runway friction that will allow the airport operator to:

- (a) Validate the preliminary RWYCCs determined through the use of the RCAM;
- (b) Downgrade the RWYCC, when appropriate; and
- (c) Upgrade the RWYCC, when appropriate.

Note 2: When available, the runway surface temperature should be used.

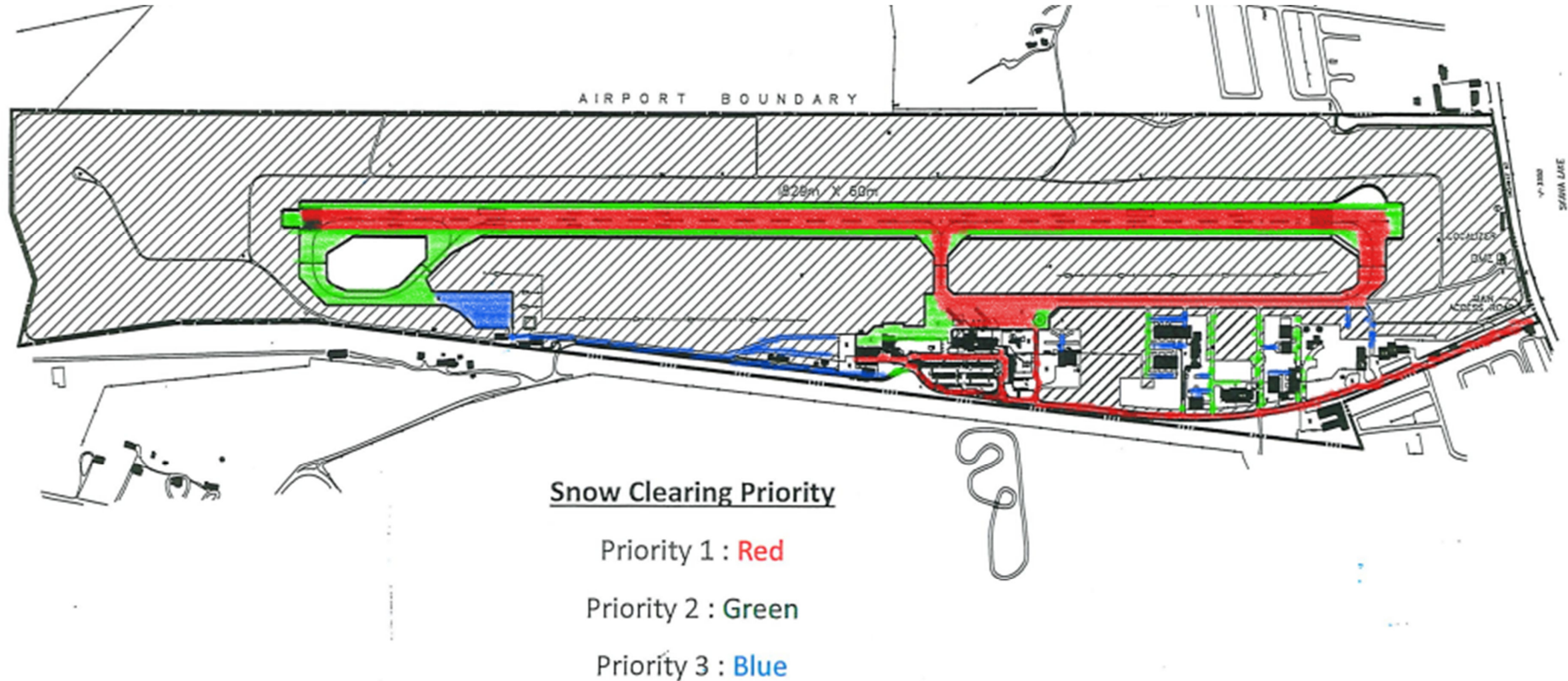
Note 3: CAUTION: At temperatures near and above freezing (e.g. at -3°C and warmer), the runway surface condition may be more slippery than indicated by the preliminary RWYCC determined with reference to the RCAM criteria. At these temperatures, airport operators should exercise vigilance and should downgrade the RWYCC if appropriate.

Note 4: CAUTION: Heavy frost that has noticeable depth may have friction qualities similar to ice and downgrading the RWYCC accordingly should be considered. If driving a vehicle over the

frost does not result in tire tracks exposing bare pavement, the frost should be considered to have sufficient depth to consider a downgrade of the RWYCC.

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Appendix H – Priority Snow Removal Map



Appendix I – Maximum Snow Accumulation Diagrams

Diagram 1

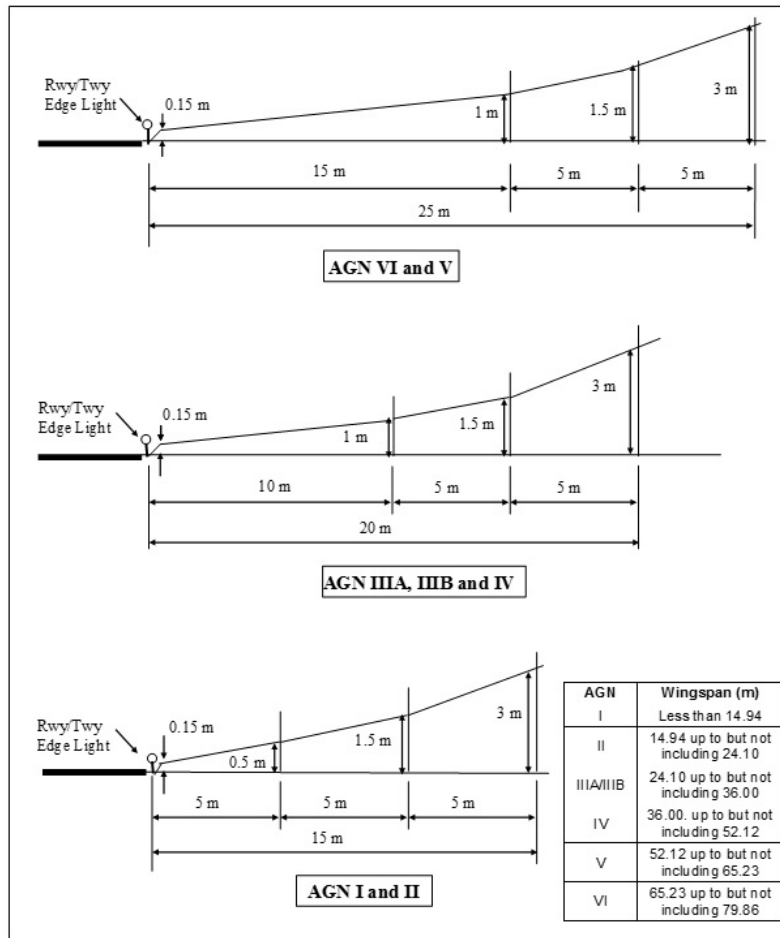


Diagram 2

