# SNOW AND ICE CONTROL PLAN


FAA APRROVAL

Original Date: 05/7/2025 1 By:_____

Revision Date: _____ Date:_____

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# SIGNATURE PAGE

This Snow and Ice Control Plan (SICP) and its contents are administered by the authority of the Airport Director of the Manassas Regional Airport.

Signature affixed below.

Signed: _____
Juan E. Rivera, Airport Director

Date: 11/21/25

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# REVISION LOG

| Date | Item | Page | Initials |
|---|---|---|---|
| 5/7/2025 | Initial Snow Plan | All | RA |
| 11/12/2025 | Plan Revisions (Training, Equipment, Maps, Letter of Agreement) | 8,10-12,14-14,19-22-26,30-36 | AD/RA |
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# 1.0 Overview and Preparation

## 1.1 Purpose

The purpose of the Snow and Ice Control Plan is to identify procedures and responsibilities for managing winter weather conditions at the Manassas Regional Airport. The following five tasks are addressed throughout this plan:

1. Pre-season preparation and post season discussion.
2. Communications and coordination of resources during snow removal operations.
3. Winter weather contaminant removal and clean-up operations.
4. Winter weather runway closure, condition assessment, and reopening criteria.
5. Measuring and reporting movement area pavement surface conditions.

## 1.2 Pre-Season Airport Meeting

The Airport Operations Supervisor will initiate a meeting with operations and maintenance staff, contractors, and tenants in the month of October to discuss equipment and material inventory, repair needs, staffing, budget, training, previous years' actions, and any other topics associated with snow and ice control.

The following topics should be discussed at this meeting:

a. Airport Clearing Operations
   i. Priority Areas, clearing operations and follow-up airfield assessments
   ii. Potentials for pilot or vehicular surface incidents or runway incursions
   iii. Updates to Non-Movement/Movement training program and staffing requirements
   iv. Decision making process
   v. Response time to keep runways, taxiways and apron areas operational
   vi. Communication, terminology, frequencies, and procedures
   vii. Monitoring and updating of runway surface conditions
   viii. Issuance of NOTAMS and dissemination
   ix. Equipment inventory and maintenance
   x. Status of procurement contracts, including storage of materials
   xi. Procedures for storm water runoff mitigation
   xii. Snow hauling/disposing, snow dumps
   xiii. Storm water runoff requirements for containment or collection
   xiv. Changes to contract service for clearing aprons
b. Any requirements for containment/collection of deicing/anti-icing
c. Tenant contractor permitting process and training requirements

### 1.1.1 Contact Information

The following numbers are to be used for contacting the airport during snow removal operations. ***All inquiries should be made through the Airport Operations Hotline and be critical in nature.*** If contact has not been made, proceed to call the following numbers in the order as they are presented.

| | |
|---|---|
| **Operations Hotline** | **703-361-5488** |
| **Maintenance Hotline** | **703-361-5438** |
| **ARFF Duty Phone** | **703-587-6302** |
| Manassas Air Traffic Control Tower | 703-361-1601 |

### 1.1.2 Distribution

A copy of the Snow and Ice Control Plan will be electronically distributed and made available to all Airport tenants.

### 1.1.3 Responsibilities and Supervision

This section will outline the responsibilities for the Airport, Fixed Based Operators (FBO), and other tenants.

*1.1.3.1 Airport*

The Airport is responsible for the following:

1. Determining when snow removal operations will begin based upon the evaluation of the existing field conditions as well as present and forecasted weather conditions.

2. Maintaining a check of runway conditions for contaminants during snow and/or ice storms.

3. Removing contaminants from the priority areas outlined in this plan.

4. Performing anti-icing and/or deicing of areas identified by the Airport.

5. Maintaining all NAVAID snow clearance areas within snow depth limits for the localizer and glide slope arrays and notifying FAA NAVAID Facilities when clearing operations commence. Snow must be removed from the vicinity of NAVAIDS whenever snow depth or drifts exceed 12 inches.

6. Disseminating airport information by publishing Notice to Airmen (NOTAM) as conditions change.

7. Informing the air traffic control tower (ATCT) and other airport tenants of current field conditions by using phone, radio, or electronic dissemination.

NOTE: If runway conditions are not monitored during overnight conditions, the last runway condition NOTAM published will include "conditions not monitored hhmm to hhmm" to alert pilots that the runway conditions may have changed since the last report. NOTAMs will be cancelled when conditions return to normal.

*1.1.3.2 Fixed Base Operators (FBO)/Businesses*

All fixed based operators and businesses will be responsible for snow removal and ice control on their designated apron areas. The Airport will

ensure that access to each FBO is obtained through snow removal operations as outlined in this plan. **All snow will remain on each tenant apron/leasehold.** Snow will not be piled too high where it may be considered an obstruction to aircraft. All businesses are responsible for disposal of their own snow and contaminants.

*1.1.3.3 Other Tenants*

Individual tenants will be responsible for removing snow in the immediate vicinity of their hangar, tie-down spot, or leasehold. This includes, but is not limited to, the area in front of the hangar doors and the pavement area leading up to the hangar. The Airport will ensure that access to each tenant apron is obtained through snow removal operations as outlined in this plan. The immediate vicinity of City Tenants is identified as 5 feet form the tie-down or hangar door.

## 1.2 Personnel Training

All Airport staff with duties that involve snow clearing operations and contractors of the airport will receive annual, recurrent snow removal training. Training records will be kept on file.

*1.2.1 Airport Staff Training*

Annual training of Airport Staff that share snow clearing operations duties will cover the following topics:

1. Review and discussion of the SICP and any updates made from the previous year.
2. Video or Classroom training related to snow clearing operations and as assigned by the Operations Supervisor.
3. Review and discussion of snow clearing operations and communications with ATCT
4. Practical training on the following:
   i. Operation of Airport vehicles and snow removal equipment.
   ii. Operation of Airport de-icing equipment.
   iii. Operation of Airport friction testing equipment(Airport Operations)

*1.2.2 Airport Contractor Training*

Snow contractors under contract with the Airport are required to take the Airport's Non-Movement Training Course within the past year if operating a vehicle or piece of equipment on Airport property.

FBOs and other tenants will be responsible for ensuring proficiency of their snow removal contractor and/or staff. Contractors requiring airside access will be issued a vehicle permit. The Airport will only issue permits to contractors who have met the following requirements:

1. Provided a copy of the contractor's current insurance.
2. Provided contact info for supervisor/shift leads and company name.
3. A list of operators who have completed and passed the Non-Movement Training Course (within the past year).
   a. The list of operators is anyone who is responsible for clearing contaminants on the Non-Movement area of the Airport.
4. All Contractor vehicles must be equipped with a beacon and marked with a company name on at least two sides of the vehicle.

#### 1.2.3 Contractor Restrictions

All airport/tenant contractors employed for snow removal will be subject to the Airport Rules and Regulations. The snow removal contractor should comply with conditions stated in their snow removal contract as well as the contents of this plan. In the event of a conflict, this snow plan and the Airport's Rules and Regulations will take precedence. At no time will any contractor be permitted to operate their equipment beyond the limits of the Non-Movement areas without being cleared by the Airport.

Contractors employed by the Airport directly will operate under the escort of the Airport prior to entering any Movement Area.

## 1.3 Equipment Preparation

All snow removal equipment operating on airport movement areas must be equipped with a beacon and a two-way radio. Radios must be capable of monitoring Manassas Ground on 121.80Mhz, the Manassas Tower/Common Traffic Advisory Frequency (CTAF) on 133.10Mhz or any other such frequency assigned by the ATCT.

All vehicles used for snow removal must be equipped with all the necessary lights and warning signals for day and night operation in accordance with the most recent version of Advisory Circular (AC) 150/5210-5, ***Painting, Marking, and Lighting of Vehicles Used on an Airport***.

At least thirty (30) days prior to snow season the Airport Maintenance Supervisor will inspect and prepare each piece of snow removal equipment. Fluids, replacement parts, and equipment components will be inventoried and stockpiled in the Airport Storage Equipment Building.

### 1.4 Post Season

After each snow season, a meeting will be held annually to review snow season issues, and recommendations for changes. The same topics discussed at the pre-season meeting will be reviewed, along with records of supplies and materials used and precipitation.

Airport Maintenance will inspect and repair equipment; Airport Operations will collaborate to complete any needed updates to this plan.

# 2.0 Winter Storm Actions and Procedures

This section identifies procedures for activating personnel, triggers for snow removal, priority areas, and equipment inventory.

## 2.1 Activating and Releasing Snow Removal Personnel

The Airport will monitor weather conditions to determine the appropriate time in which snow removal personnel will respond to an event. The number of personnel will be dependent on the severity of the forecasted event, shift coverage, and availability of employees.

### 2.1.1 Triggers for Initiating Snow Removal Operations

Snow removal and treating operations will begin when contaminants begin accumulating on the pavement surfaces. Clearing operations will be dispatched at the onset of accumulation and will continue until accumulation ceases.

| Precipitation | Depth in Inches |
|---|---|
| Slush | 1/8” |
| Wet Snow | 1/8” |
| Dry Snow | 1/8” |
| Ice | 1/8” |

## 2.2 Airfield Clearing Priorities

This section identifies the clearing priorities for the Manassas Regional Airport. The priorities focus on critical areas of the airfield that will allow aircraft operations in a safe and efficient manner at an acceptable level of service given environmental conditions. The Airport may alter clearing priorities as operational conditions dictate. It should be noted that some priority areas can be cleared simultaneously. Clearing operations on Priority Two (2) and Three (3) areas will commence as availability of equipment and personnel dictates. Should there be continuous snowfall; snow removal resources will be shifted from Priority 2 and 3 areas to Priority one (1) areas in order to meet reasonable clearance times. A graphic depiction of these priorities is included in Appendix A of this plan.

### 2.2.1 Priority 1

Clearing operations on the primary runway, associated parallel taxiway, navigation aid service roads, emergency/mutual aid access gates, Aircraft Rescue and Fire Fighting (ARFF) roadways, and east apron taxiway entrances connecting to the parallel taxiway will be considered Priority 1. These areas include those portion(s) of the aprons immediately necessary to allow movement of aircraft and first responders at a minimum acceptable level of service. Priority 1 areas are listed in order:

A. Runway 16L/34R
B. Glide Slope Road
C. MALSR Road
D. Taxiway Victor
E. Taxiway Bravo
F. Taxiway Bravo 1
G. Taxiway Bravo 6
H. Localizer Road
I. Taxilane Zulu (From Taxilane Delta to Taxilane Yankee)
J. ARFF Hangar Row
K. Terminal Apron
L. East Apron
M. Taxilane Foxtrot
N. Taxilane Delta
O. Taxiway Golf
P. Taxilane Yankee
Q. Taxilane Zulu (From Taxiway Delta to Gate B)
R. Aviation Lane to Gate B (Emergency Access Gates)
S. Fuel Farm
T. Observation Road and Aviator Avenue to Gate E (Control Tower Access)
U. Wakeman Drive South to Gate A (Emergency Access Gates)

### 2.2.2 Priority 2

Clearing operations on connecting the secondary runway, additional taxiways, run-up blocks, and apron areas will be considered Priority 2. These areas include those portion(s) of the Airport to increase the flow of aircraft and open up operations to the west side. These areas are listed in order:

A. Taxilane Zulu (From Gate B North)
B. Taxilane Charlie
C. Taxiway Echo
D. FAA Tower Parking Lot
E. Taxiway Bravo 3
F. Taxiway Bravo 4
G. Runway 16R/34L
H. Taxiway Alpha
I. Taxiway Alpha 1
J. Taxiway Alpha 5
K. Taxiway Quebec
L. Taxiway Uniform
M. Taxiway Kilo
N. Runway 16L/34R Run-up blocks
O. Taxiway Kilo Run-up block
P. Piper Lane South of Train Trestle

While work progresses in these areas, the condition of the active runway will be kept under close surveillance. If there is continuous snowfall, all work in other Priority 2 areas will be suspended and operations will be moved to the active runway and Priority 1 areas in order to maintain safe operating conditions.

### 2.2.3 Priority 3

Clearing operations on additional airport access roads, west apron, parking lots, and secondary taxilanes will be considered Priority 3. These areas include those portion(s) of the Airport to further increase the flow of aircraft and fully open access to the Airport. These areas are listed in order:

A. Runway 16R/34L Run-up blocks
B. Taxiway Alpha 2
C. Taxiway Alpha 3
D. Taxiway Alpha 4
E. Frank Marshal Lane
F. James Payne Court/Entrance to Gate C
G. Skyview Terrace
H. Taxiway Bravo 5
I. Taxiway Bravo 2
J. East Business Row
K. East Business Parking Lots
L. East City T-Hangars
M. Stairs North of 10601 Aviator Avenue
N. West Business Buildings
O. 10600 Aviator Avenue Parking Lot
P. West City T-Hangars
Q. Taxiway Romeo
R. Taxiway Sierra
S. Taxiway Tango
T. Taxilane Whiskey
U. West Apron
V. Interior Service Road

Priority 3 areas will be cleared only after all essential aircraft operational areas have been cleared.

Airport perimeter roads (Airman Avenue, Observation Road, Wakeman Drive, and Piper Lane) will be jointly maintained by the Airport, the Airport's contractors, and the City of Manassas Public Works Department.

### 2.2.4 Contractor Priorities

In conjunction with Airport Staff, contractors will be employed to simultaneously clear portions of the airport. Clearing operations for the perimeter roads, access roads, parking lots, and aprons will be considered contractor priorities. These areas are listed in order:

A. Observation Road
B. Aviator Avenue
C. FAA Tower Parking Lot
D. ARFF Hangar
E. Taxilane Foxtrot
F. Fuel Farm
G. Aviation Lane to Gate B (Emergency Access Gates)
H. Observation Road and Aviator Avenue to Gate E (Control Tower Access)
I. Wakeman Drive South to Gate A (Emergency Access Gates)
J. Piper Lane South of Train Trestle
K. Frank Marshal Lane
L. James Payne Court/Entrance to Gate C
M. Skyview Terrace
N. Terminal Loop
O. Terminal Building Parking Lot
P. Terminal Building Sidewalks
Q. East Business Row
R. East Business Parking Lots
S. East City T-Hangars
T. East Tie-Downs
U. Stairs North of 10601 Aviator Avenue
V. West Business Buildings
W. 10600 Aviator Avenue Parking Lot
X. West City T-Hangars
Y. West Apron
Z. Interior Service Road

The standard procedure will be:

1. The contaminants from the east hangars will be moved off in to the dumping areas to the south.
2. The contaminants from the west hangars will be moved off to the dumping areas to the west.
3. All other areas will have contaminants moved to the left or right of the roadway: area in which snowdrifts or windrows will not be a safety obstruction to aircraft and vehicle traffic.

## 2.3 Airfield Clearance Times

The priorities focus on critical areas of the airfield that will allow aircraft operations in a safe and efficient manner at an acceptable level of service given environmental conditions. As noted in the previous section, Priority one (1) areas are not limited to the runways and includes clearing of taxiways and taxilanes that provide essential service to areas of the airport.

| Annual Airplane Operations (includes cargo operations) | Clearance Time[1] (hour) |
|---|---|
| 40,000 or more | 1/2 |
| 10,000 – but less than 40,000 | 1 |
| 6,000 – but less than 10,000 | 1 1/2 |
| Less than 6,000 | 2 |
| General: Commercial Service Airport means a public-use airport that the U.S. Secretary of Transportation determines has at least 2,500 passenger boardings each year and that receives scheduled passenger airplane service [see 49 U.S.C. 47102(7)]. | |
| Footnote 1: These airports should have sufficient equipment to clear 1 inch (2.54 cm) of falling snow weighing up to 25 lb/ft$^3$ (400 kg/m$^3$) from Priority 1 areas within the targeted clearance times. | |

**Table 1 – Clearance Times for Commercial Service Airports**

Based on the Table 1, the Airport will comply with the clearance times required for commercial service airports. Based on the number of annual operations (less than 6,000), the Airport will attempt to remove contaminants from Priority one (1) areas within two (2) hours.

## 2.4 Sufficient Equipment

Based on the most recent version of FAA Advisory Circular 150/5220-20, ***Airport Snow and Ice Control Equipment,*** commercial service airports that provide scheduled air carrier service must have at least one high-speed rotary plow. This can be supplemented with at least two (2) snow plows having equal snow removal capacity. The following section will determine if there is sufficient equipment available to clear Priority 1 areas within a reason time. The table below itemizes the Priority 1 critical areas and calculates the total square footage. The locations are intentionally alphabetized and are not in priority order.

| **Critical Priority 1 Areas** | |
|---|---|
| **Location** | **Paved Area (square feet)** |
| ARFF Hangar | 30,325 |
| Aviation Lane to Gate B (Emergency Access Gates) | 19,331 |
| East Apron | 426,715 |
| Fuel Farm | 71,375 |
| Glide Slope Road | 3,243 |
| Localizer Road | 7,560 |
| MALSR Road | 11,140 |
| Aviator Avenue/Observation Road to Gate E (Control Tower Access) | 178,978 |
| Runway 16L/34R | 667,951 |
| Taxilane Delta | 41,666 |
| Taxilane Foxtrot | 154,875 |
| Taxilane Yankee | 160,539 |
| Taxilane Zulu (From Taxilane Delta to Taxilane Yankee) | 399,746 |
| Taxilane Zulu (From Taxiway Delta to Gate B) | 59,530 |
| Taxiway Bravo, Bravo 1, and Bravo 6) | 317,220 |
| Taxiway Golf | 22,160 |
| Taxiway Victor (ILS Critical Area) | 12,914 |
| Terminal Apron and Maintenance Storage | 63,408 |
| Wakeman Drive South to Gate A (Emergency Access Gates) | 35,583 |
| **TOTAL Priority 1 Areas** | **2,684,259** |

The graph below was used to determine the high-speed rotary plow selection based the total square feet of Priority 1 areas. The selection assumes that the paved areas have a snow depth of one (1) inch with a density of 25 lb. /ft$^3$ with 70% efficiency.

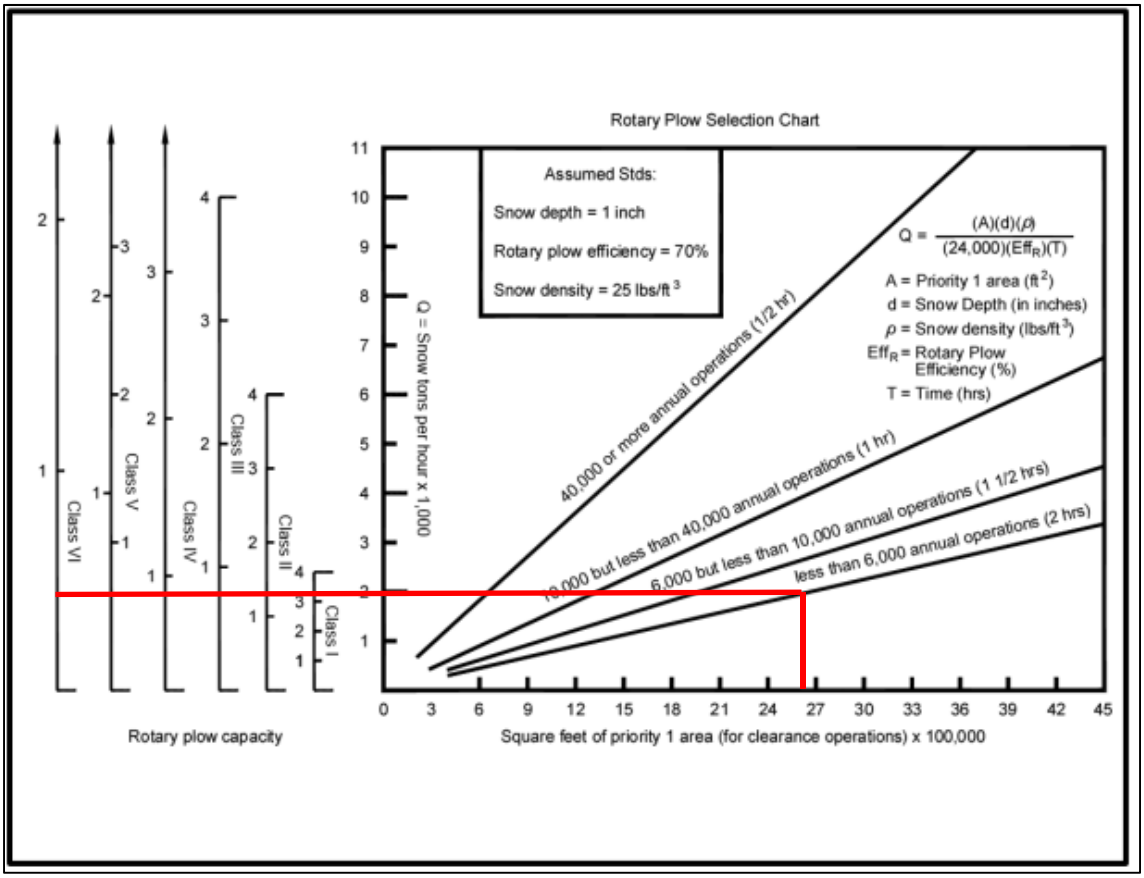


**Figure 1 – High-speed rotary plow calculations for airports with commercial service**

The high-speed rotary plow must have a minimum output of about 2,000 tons per hour. This gives a quantity and capacity requirement of one (1) Class II rotary plow. A Class III rotary plow has a minimum casting distance of 100 feet with a minimum capacity of 2,500 tons per hour. The Airport has the following equipment in an attempt to meet the tonnage requirement.

| Equipment | Size/Class | Minimum Casting Distance Feet | Minimum Capacity Tons/Hour |
|---|---|---|---|
| Oshkosh Blower | Intermediate/III | 100 | 2,500 |

**Table 2 – Equipment list for high-speed rotary plow**

The following three graphs were used to determine the tonnage of snow removal per hour as well as the effective and actual snow blade length based the total square feet of Priority 1 areas.

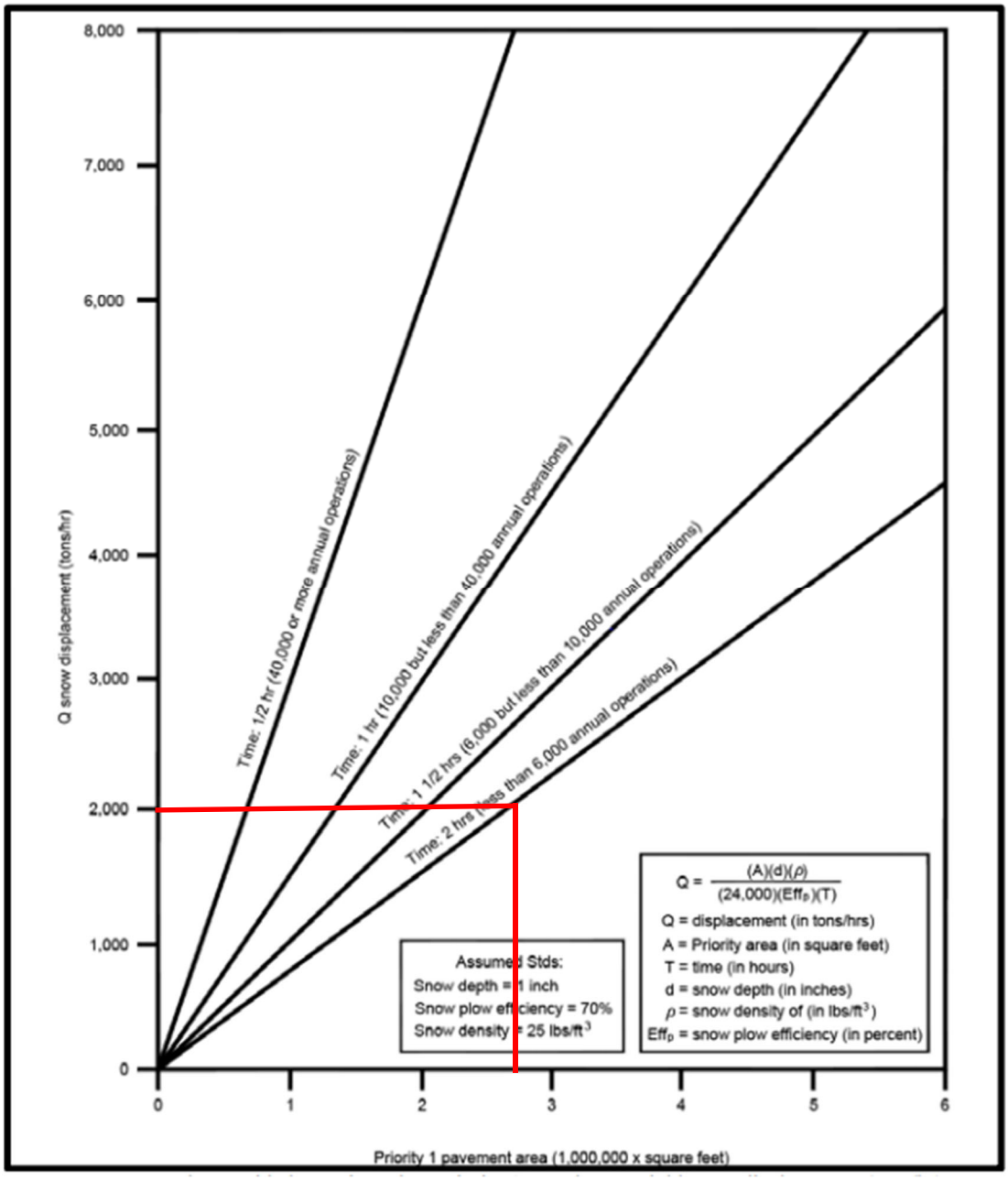


**Figure 2 – Snow removal for Priority 1 paved areas for commercial service airports**

At a minimum, two snowplows of equal snow removal capacity are required to support a high-speed rotary plow. The capacity requirement is 2,000 tons per hour. The selection also assumes that the paved areas have a snow depth of one (1) inch with a density of 25 lb. /ft$^3$ with 70% efficiency and 15 mph operating speed.

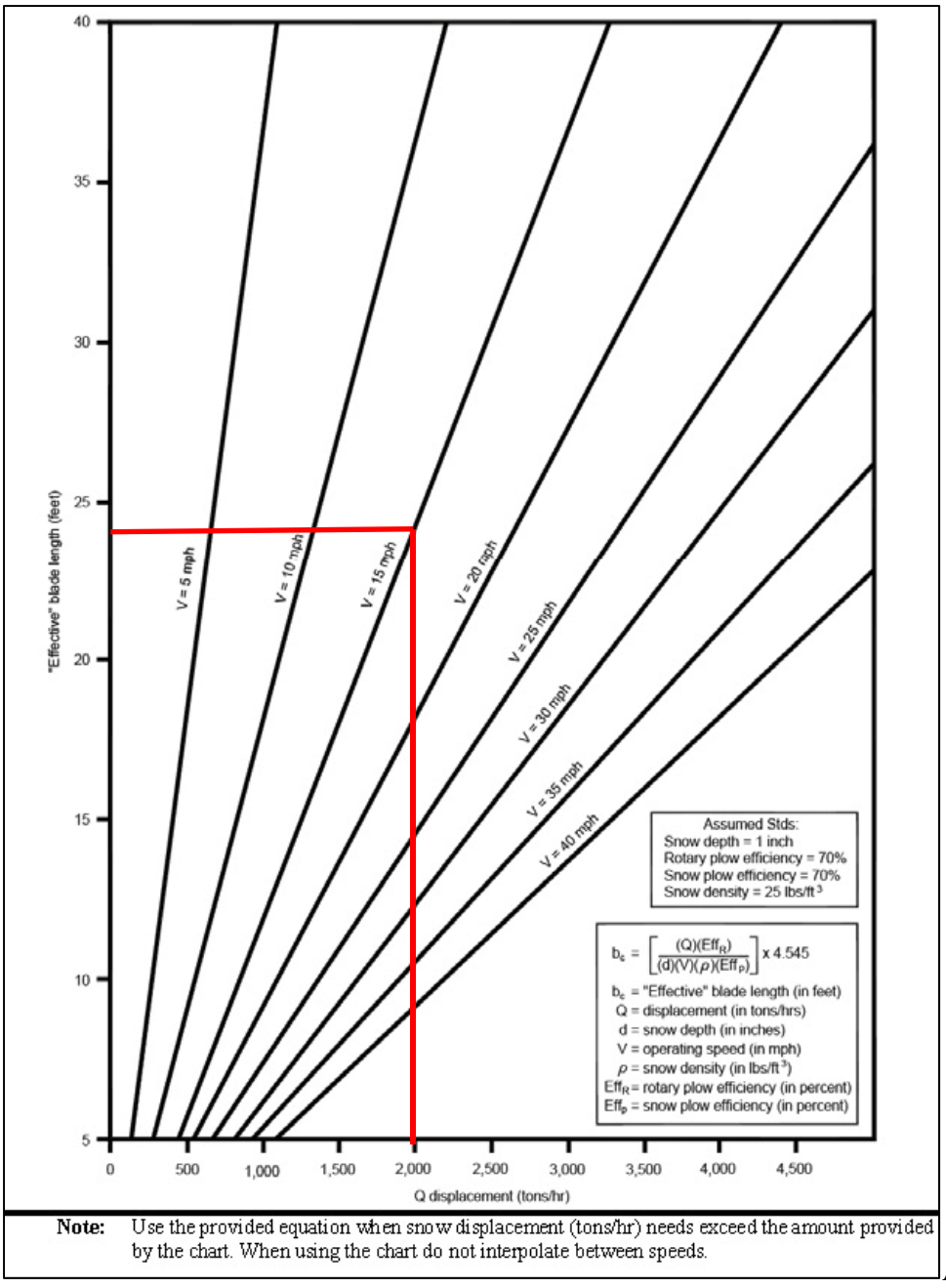


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**Figure 3 – Effective blade length related to snow displacement**

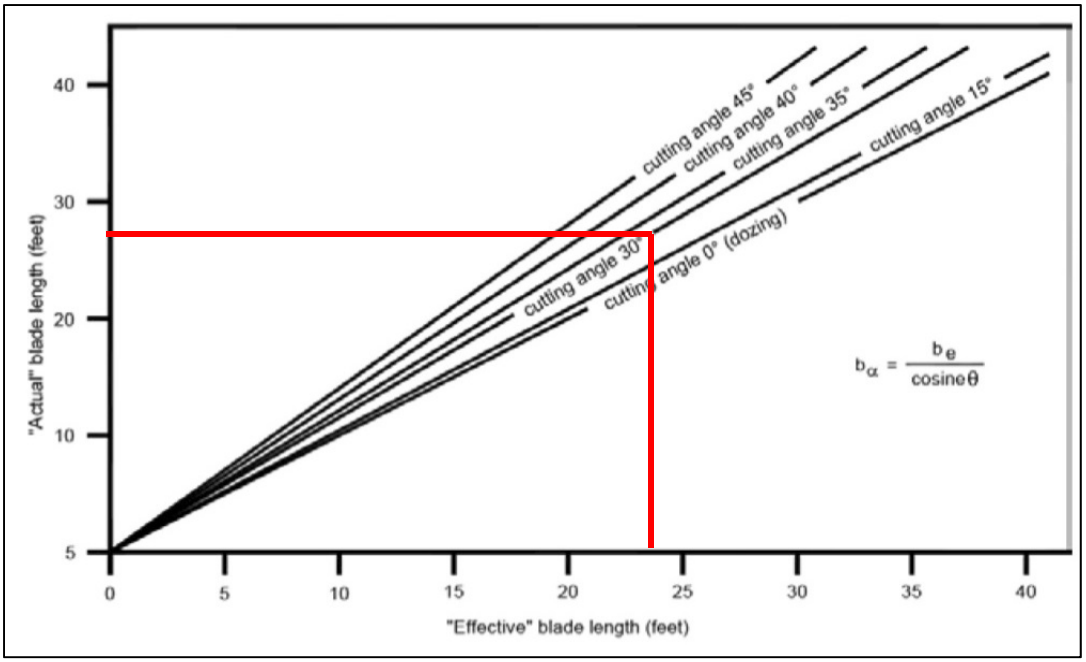



**Figure 4 – Effective versus actual blade length**

Based on the operating speed of the rotary plow, the effective blade length is about 22 feet. This actual cutting-edge length is approximately 27 feet. The Airport has the following equipment in an attempt to meet the length requirement.

| Vehicle # | Description | Actual Blade Length | Classification |
|---|---|---|---|
| AP-2 | Single Axle | 12 feet | Intermediate |
| AP-4 | 4x4 Pickup Truck | 10 feet | Intermediate |
| AP-5 | 4x4 Pickup Truck | 8 feet | Small |

**Table 3 - Equipment list for snow plow**

The Airport will provide qualified personnel and sufficient equipment in order to comply with the requirements of its Airport Certification Manual (ACM).

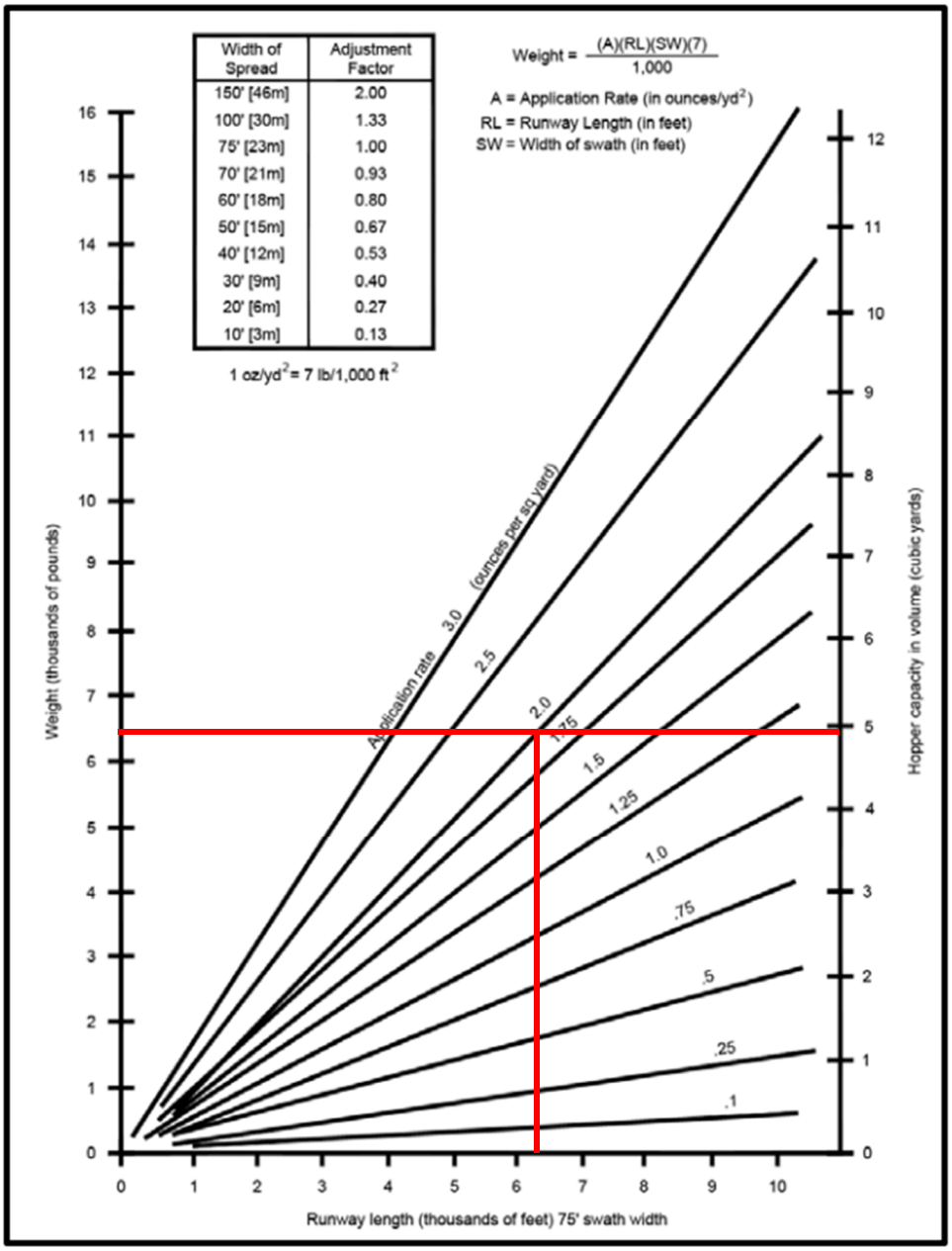



**Figure 5 – Hopper capacity**

Based on the length of Runway 16L/34R (6,200 feet), for an application rate of 2 ounces per square yard with an assumed 100-foot swath, the dry material spreader must have a hopper capacity of about 6.65 cubic yards. Airport has the following equipment in an attempt to meet the length requirement.

| Vehicle # | Description | Spreader Capacity |
|---|---|---|
| AP-4 | 4x4 Pickup Truck | Salt Dogg 2.0 cubic yards |

**Table 4 - Equipment list for dry material spreader**

Based on the length of Runway 16L/34R (6,200 feet), for an application rate of 0.30 gal/1,000ft$^2$, the liquid material spreader must have a tank capacity of 186 gallons for anti-icing. For an application rate of 1.00 gal/1,000ft$^2$, the liquid material spreader must have a tank capacity of 620 gallons for deicing. The Airport has the following equipment in an attempt to meet the tank capacity requirement for these applications.

| Vehicle # | Description | Tank Capacity |
|---|---|---|
| AP-2 | Single Axle Dump Truck with tow-behind liquid sprayer. | 1000 gallons |

**Table 5 - Equipment list for liquid material spreader**

## 2.5 Snow Equipment List

The following Airport equipment is available to be used for snow and ice control:

| Vehicle # | Description | Capabilities |
|---|---|---|
| AP 1 | 4x4 Pickup Truck | 8’ Plow, |
| AP 2 | Single Axle Dump Truck | 12’ Plow, Tow-behind liquid sprayer |
| AP 3 | Standard Pickup Truck | Utility |
| AP 4 | 4x4 Pickup Truck | 10’ Plow, Dry Spreader |
| AP 5 | 4x4 Pickup Truck | 8’ Plow |
| AP 6 | Skidsteer | 6’ Blower, 14’ Box Plow, 8’ Bucket |
| AP 8 | Utility Vehicle | Utility |
| AP 9 | Tractor | 12’ Box Plow, 8’ Bucket |
| AP10 | Oshkosh Blower | 10’ Blower |
| AP14 | Oshkosh Broom | 18’ Broom |
| AP15 | 4x4 Pickup Truck | 8’ Plow |
| AP16 | Tractor | 12’ Box Plow, 7’ Bucket |
| AP21 | Rubber Tire Loader | 20’ Box Plow |
| AP22 | Oshkosh Plow | 16’ Plow |

The following equipment is also available through the Airport’s contractor for snow and ice control.

- Three (3) Carrier Vehicles with an approximate 8’ plow
- Skid Steer Loader or Equivalent.
- One (1) Laborer with a walk-behind snow blower
- Front-end loader and dump truck (when requested)

## 2.6 Storage of Snow and Ice Control Equipment

All snow and ice control equipment are stored year-round inside the Airport Storage Equipment Building. This facility is temperature controlled and includes all the necessary parts and tools to perform repairs and maintenance on the vehicles. Equipment is inspected after every use for damage, leaks, and failures. Essential equipment will attempt to be repaired prior to the next workday or snow event. Equipment with parts on order will be placed out of service until repaired.

# 3.0 Snow and Ice Clearing Principles

This section will cover snow and ice clearing principles. It will also cover mitigation procedures for preventing surface incidents and runway incursions.

## 3.1 Controlling Snow Drifts

Drifted or windrowed snow will be removed completely and promptly from any runway, taxiway, and apron surfaces. All movement areas are to be plowed at their full width.

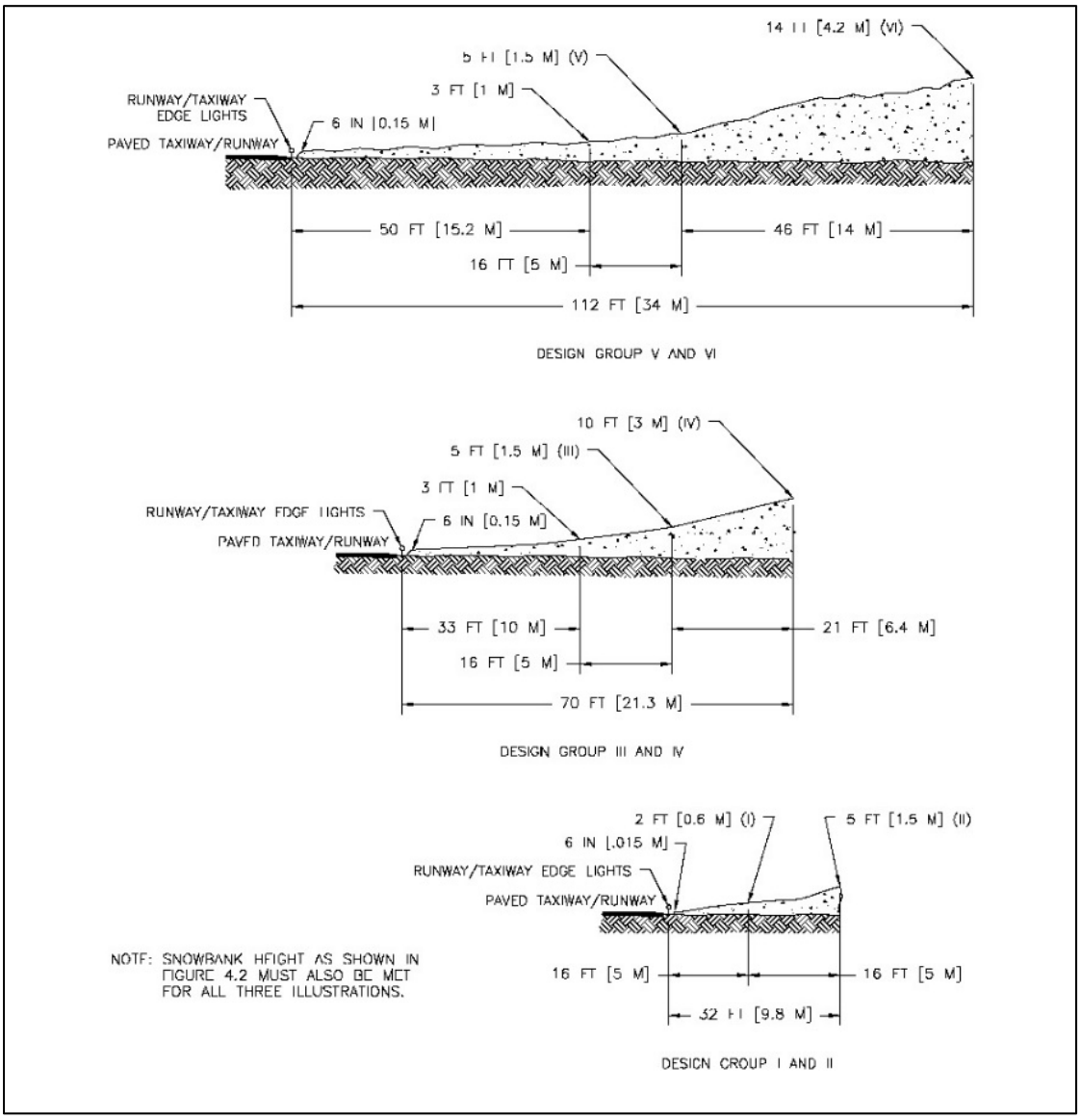


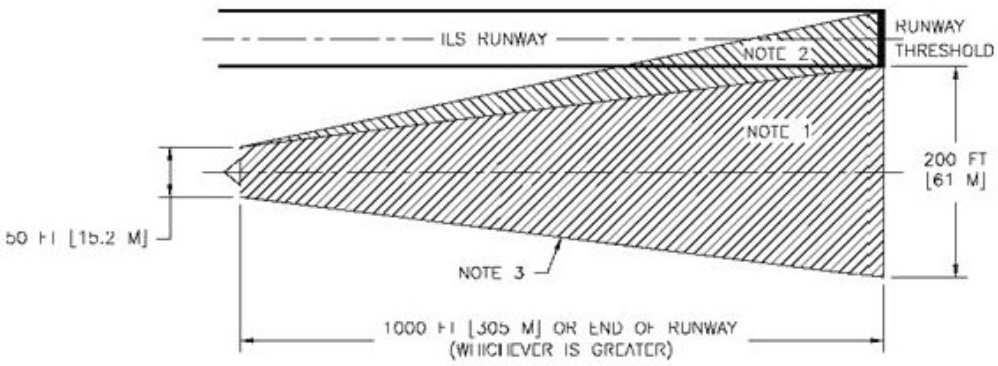

**Figure 6 – Snow Bank Profile Limits Along Edges of Runways and Taxiways with Airplane Wheels on Full Strength Pavement**

In the event of heavy snow accumulation, the height of snowbanks alongside usable runway, taxiway and apron surfaces should be such that aircraft propellers, engine pods, and wing tips can clear snowdrifts and snowbanks when the aircraft's landing gear is located on any point of the runway, taxiway, or apron pavement. Reasonable effort will be made to prevent snowdrifts and windrows from accumulating at the approach end of the runways. Priority will be given to the removal of snow that is obstructing critical airfield lights, markings, and signage; to include but not limited to approach lighting, edge lights, holdlines, ILS critical areas, hold position signs, and distance remaining signs.

In the event that the snow removal crew is unable to comply promptly with the requirements stated above, the Airport will publish a NOTAM to describe the existing hazard until the hazard has been removed.

## 3.2 NAVAIDS

When clearing snow from movement areas, snowdrifts and windrows generated within the glide slope and localizer critical areas will be managed as to not exceed 12 inches. Should drifts and windrows become unmanageable, a NOTAM will be issued and the FAA will be notified of the obstruction.




NOTES:

1. CATEGORY I GLIDE SLOPE SNOW CLEARANCE AREA.
2. CATEGORY II AND III GLIDE SLOPE SNOW CLEARANCE AREA. THE AREA DEPICTED UNDER NOTE 1 SHALL ALSO BE CLEARED.
3. THE DEPTH OF SNOWBANKS ALONG THE EDGES OF THE CLEARED AREA SHALL BE LESS THEN 2 FEET.

| ACTION TAKEN | SNOW DEPTH | | |
|---|---|---|---|
| | SBR <6 IN [15 cm]<br>NR. CEGS <18 IN [45 cm] | SBR 6 TO 8 IN [15 TO 20 cm]<br>NR. CEGS 18 TO 24 IN [45 TO 60 cm] | SBR >8 IN [20 cm]<br>NR. CEGS <24 IN [60 cm] |
| SNOW REMOVAL (SEE ABOVE FIGURE) | REMOVAL NOT REQUIRED RESTORE FULL SERVICE AND CATEGORY. | ILS CATEGORY I<br>REMOVE SNOW 50 FT [15M] WIDE AT MAST WIDENING TO 200 FT [60M] WIDE AT 1000 FT [300M] OR END OF RUNWAY TOWARD MIDDLE MARKER.<br>ILS CATEGORIES II AND III<br>AS ABOVE PLUS WIDEN THE AREA TO INCLUDE A LINE FROM THE MAST TO THE FAR EDGE OF RUNWAY THRESHOLD. | |
| NO SNOW REMOVAL | RESTORE FULL SERVICE AND CATEGORY. | ALL CATEGORIES<br>RESTORE TO CATEGORY I SERVICE. CATEGORY D AIRCRAFT MINIMA RAISED TO LOCALIZER ONLY.<br>TYPICAL NOTAM TEXT:<br>"DUE TO SNOW ON THE IXXX (APPROPRIATE IDENTIFER) GLIDE SLOPE, MINIMA TEMPORARILY RAISED TO LOCALIZER ONLY FOR CATEGORY D AIRCRAFT" IF APPLICABLE, "CATEGORY II NA"* OR "CATEGORY II/III NA". | ALL CATEGORIES<br>APPROACH RESTRICTED TO LOCALIZER ONLY MINIMA.<br>TYPICAL NOTAM TEXT:<br>"DUE TO SNOW ON THE IXXX (APPROPRIATE IDENTIFER) GLIDE SLOPE, MINIMA TEMPORARILY RAISED TO LOCALIZER ONLY. |

* NA (NOT AUTHORIZED)

**Figure 7 – ILS CAT I and CAT II/III Snow Clearance Area Depth Limitations**

### 3.3 Snow Disposal

All snow windrows will be removed as soon as possible after an event. All snowdrifts, banks, and windrows should be flattened to the proper height for safe aircraft clearance. If it is required that snow piles must be relocated, the snow dumping area(s) will be identified by Airport staff and coordinated with approved contractors.

Tenants and Fixed Based Operators are responsible for the disposal of their own snow and contaminants. Snow is not permitted to be piled in taxilanes and safety areas.

### 3.4 Methods for Ice Control and Removal

For airside operations, the Airport will use a combination of liquid and solid deicer/anti-icer. Liquid potassium acetate will be used for de-icing and anti-icing with supplemental use of granular urea. Landside operations will also use granular urea with limited use of salt-based products to prevent cross contamination. Sand will not be used during airside or landside operations.

When icing conditions are forecasted, the concrete bridge structures of Runway 16L/34R and Taxiway Bravo may be pretreated. If ice has formed, de-icing of Runway 16L/34R may be done with liquid potassium acetate or sodium formate or a combination of the two.

In the event that icing conditions overwhelm available anti-ice capabilities, the Airport will issue the appropriate NOTAMS indicating that the affected areas are closed.

## 3.5 Surface Incident/Runway Incursion Mitigation Procedures

Unless authorized or in direct supervision by the Airport, vehicles identified Section 2.5 are the only authorized vehicles allowed on the movement areas. All personnel and crew must have annually completed the Non-Movement and Movement Area Training Courses.

### 3.5.1 Radio Communication

All snow removal vehicles operating on aircraft movement areas must be equipped with a two-way radio or be escorted by a vehicle that is properly equipped. Radios must be monitored at all times. To minimize confusion and radio congestion, a single "Snow Boss" will be designated and will be the sole source of communication for all vehicles operating on the movement area. Should equipment be dispersed across multiple areas or an issue occurs, the Snow Boss will relinquish their role, and each vehicle will initiate contact and report their position as identified in the following sections.

Individual vehicles will be equipped with company radios to ensure the efficiency and effectiveness of vehicle-to-vehicle communications.

#### *3.5.1.1. Tower Open*

When the tower is open, vehicle operators must monitor Manassas Ground on 121.80Mhz unless directed by the controller to monitor an alternate frequency. The Snow Boss must receive clearance prior to vehicles operating on any taxiway or runway. When exiting a movement area, the Snow Boss will report each vehicle clear on 121.80Mhz or the assigned frequency.

#### *3.5.1.2. Tower Closed*

When the tower is closed, vehicle operators must monitor the CTAF on 133.10Mhz and self-announce their operations. The Snow Boss will be in charge of self-announcing all operations.

Although aircraft are encouraged to announce their intentions on CTAF, it is not mandatory. This is why it is important and mandatory for vehicle operators to self-announce snow clearing activity on the airport. Self-announcing must be made every ten (10) minutes: regardless of whether or not the snow clearing activity has changed. Self-announcing should be also done as the situation changes, especially if an aircraft reports in on the CTAF.

### 3.5.2 Failed Radio Communication

If there is a failure in radio communications between the snow team and the ATCT, personnel will use their cell phone to contact the ATCT on 703-361-1601.

### 3.5.3 Low Visibility and Whiteout Conditions

Snow removal is conducted in all types of weather. As a result, the snow team may find themselves in low visibility or whiteout conditions. In an effort to continue safe operations, the snow team will reduce operating speed in low visibility and provide radio updates as required per Section 3.5.1. Operator communications will be done by phone to ensure the members of the snow team are familiar with operating locations.

In whiteout conditions, the snow team will cease snow removal operations and stop where they are until conditions improve enough to safely operate. Radio updates will be provided as required per Section 3.5.1.

### 3.5.4 Driver Fatigue/Airport Work Schedule

The Airport will modify normal work schedules as necessary and develop a work/rest schedule that ensures all members of the snow team are adequately rested in order to safely perform their duties.

# 4.0 Runway Condition Assessments

## 4.1 Conducting Surface Assessments

Assessments of the runway, taxiway, and apron conditions will be conducted on a routine basis by Airport Operations or following the clearing of contaminated areas. Vehicles will be used by the Airport in conducting assessments.

## 4.2 Applying the Runway Condition Assessment Matrix (RCAM)

The **RCAM** (Table 4) is the method by which the Airport reports a runway surface assessment when contaminants are present. Use of the RCAM is only applicable to paved runway surfaces. Once an assessment has been performed, the RCAM defines the format for which the Airport reports and receives a runway condition "Code" via the NOTAM Manager System. The reported information allows the airplane operator to interpret the runway conditions in terms that relate to their own aircraft performance.

| Assessment Criteria | | Downgrade Assessment Criteria | | |
|---|---|---|---|---|
| **Runway Condition Description** | **Code** | **Mu (μ) [1]** | **Vehicle Deceleration or Directional Control Observation** | **Pilot Reported Braking Action** |
| • Dry | 6 | 40 or Higher | --- | --- |
| • Frost<br>• Wet (Includes Damp and 1/8 inch depth or less of water)<br>***1/8 inch (3mm) depth or less of:***<br>• Slush<br>• Dry Snow<br>• Wet Snow | 5 | | Braking deceleration is normal for the wheel braking effort applied AND directional control is normal. | Good |
| ***5° F (-15°C) and Colder outside air temperature:***<br>• Compacted Snow | 4 | 39 to 30 | Braking deceleration OR directional control is between Good and Medium. | Good to Medium |
| • Slippery When Wet (wet runway)<br>• Dry Snow or Wet Snow (Any depth) over Compacted Snow<br>***Greater than 1/8 inch (3mm) depth of:***<br>• Dry Snow<br>• Wet Snow<br>***Warmer than 5° F (-15°C) outside air temperature:***<br>• Compacted Snow | 3 | | Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced. | Medium |
| ***Greater than 1/8 (3mm) inch depth of:***<br>• Water<br>• Slush | 2 | 29 to 21 | Braking deceleration OR directional control is between Medium and Poor. | Medium to Poor |
| • Ice [2] | 1 | | Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced. | Poor |
| • Wet Ice [2]<br>• Slush over Ice<br>• Water over Compacted Snow [2]<br>• Dry Snow or Wet Snow over Ice [2] | 0 | 20 or Lower | Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain. | Nil |

[1] The correlation of the Mu (μ) values with runway conditions and condition codes in the Matrix are only approximate ranges for a generic friction measuring device **and are intended to be used only to downgrade a runway condition code; with the exception of circumstances identified in Note 2.** Airport operators should use their best judgment when using friction measuring devices for downgrade assessments, including their experience with the specific measuring devices used.

[2] In some circumstances, these runway surface conditions may not be as slippery as the runway condition code assigned by the Matrix. The airport operator may issue a higher runway condition code (but no higher than code 3) for each third of the runway if the Mu value for that third of the runway is 40 or greater obtained by a properly operated and calibrated friction measuring device, **and all other observations, judgment, and vehicle braking action support the higher runway condition code. The decision to issue a higher runway condition code than would be called for by the Matrix cannot be based on Mu values alone; all available means of assessing runway slipperiness must be used and must support the higher runway condition code.** This ability to raise the reported runway condition code to a code 1, 2, or 3 can only be applied to those runway conditions listed under codes 0 and 1 in the Matrix.

The airport operator must also continually monitor the runway surface as long as the higher code is in effect to ensure that the runway surface condition does not deteriorate below the assigned code. The extent of monitoring must consider all variables that may affect the runway surface condition, including any precipitation conditions, changing temperatures, effects of wind, frequency of runway use, and type of aircraft using the runway. If sand or other approved runway treatments are used to satisfy the requirements for issuing this higher runway condition code, the continued monitoring program must confirm continued effectiveness of the treatment.

**Caution: Temperatures near and above freezing (e.g., at 26.6° F (-3°C) and warmer) may cause contaminants to behave more slippery than indicated by the runway condition code given in the Matrix. At these temperatures, airport operators should exercise a heightened level of runway assessment, and should downgrade the runway condition code if appropriate.**

**Table 6 – Runway Condition Assessment Matrix**

### 4.3 Runway Condition Codes (RwyCC)

Runway Condition Codes (Format: X/X/X) represent the runway condition description based on defined terms and increments. Use of these codes conforms with ICAO Annex 14, providing a standardized "shorthand" format for reporting RwyCC (which replaced Mu values).

*Step 1: Runway Condition Code Applicability:*

If 25 percent or less of the overall runway length and width or cleared width is covered with contaminants, RwyCCs must not be applied, or reported. The Airport will report the contaminant percentage, type, and depth for each third of the runway, to include any associated treatments or improvements.

If the overall runway length and width coverage or cleared width is greater than 25 percent, RwyCCs must be assigned and reported, informing airplane operators of the contaminant present, and associated codes for each third of the runway. The reported code will serve as a trigger for all airplane operators to conduct a takeoff and/or landing performance assessment.

*Step 2: Apply Assessment Criteria*

Based on the contaminants observed, the associated RwyCC from the RCAM for each third of the runway will be assigned.

*Step 3: Validating Runway Condition Codes*

If the observations by the Airport determine that the RwyCCs assigned accurately reflect the runway conditions and performance, no further action is necessary, and the RwyCCs generated may be disseminated.

**a) Downgrade Assessment Criteria**
When observations indicate a more slippery condition than generated by the RCAM, the Airport may downgrade the RwyCC(s). When applicable, the downgrade of the RwyCCs may be based on ambient temperature, friction readings, vehicle control or tower reported braking action.

**b) Upgrade Assessment Criteria**
It is the policy of the Airport that RwyCC(s) will not be upgraded, regardless of the reported conditions.

### 4.4 Surface Condition Reporting

The Airport is responsible for implementing the Snow and Ice Control Plan (SICP) and will carefully monitor changing airfield conditions and disseminate information about those conditions via the NOTAM Manager System in a timely manner.

### 4.5 NOTAM Issuance

The Airport will utilize the NOTAM Manager System, through electronic means or by phone, to describe the field conditions of the airport. NOTAMs will reflect information documented in the Field Condition (FICON) Reports. NOTAMS will be issued and updated as conditions change.

In the event that icing and snow conditions overwhelm the capabilities of the snow removal crews, the Airport will issue appropriate NOTAMs indicating that the affected surfaces are closed.

Once a runway or affected surface(s) are devoid of all contaminates and produces a RwyCC of 5 or greater, a final NOTAM for the weather event will be issued by the Airport indicating WET field conditions. This NOTAM will self-cancel after 24 hours. If no further hazard or safety issue exists, no additional NOTAMs will be issued for the event.

### 4.6 Closures and Re-opening Criteria

The Airport will assess the runway and taxiway condition based on RCAMs, ambient temperature, friction readings, vehicle control or tower reported braking action.. Affected areas that are scheduled to be plowed/treated will be closed by a NOTAM until it is considered safe and clear of any snowdrifts or windrows. A follow-up assessment will be conducted by the Airport before a surface will be opened.

Runways receiving a report of NIL braking (either pilot reported or by assessment by the airport) or a RwyCC of 1 or less on any third portion of the runway, the runway will be closed immediately. This condition will be reported via the NOTAM Manager System.

The Airport will maintain available airport surfaces in a safe operating condition and provide prompt notifications when areas normally available are less than satisfactorily cleared for safe operations. If a surface (runway, taxiway, taxilane, or apron) becomes unsafe due to a NIL or otherwise unsafe hazard or condition, the surface will be closed until the condition no longer exists and is safe.

### 4.7 Monitoring Conditions

The Airport will take all reasonable steps using available equipment and materials to improve the conditions of the Priority areas. If the runway cannot be improved, the

Airport will continuously monitor Priority Areas to ensure braking action does not become NIL. The Airport's procedure for monitoring the Priority Areas will be:

1. Observing which taxiways are being used.
2. Monitoring pavement physical conditions including air and surface temperatures, contaminant types and depths.
3. Monitoring air traffic and pilot communications as it relates to PIREPs for the portion of runway that was used.
4. Monitoring weather patterns.
5. Increased self-inspection frequency.

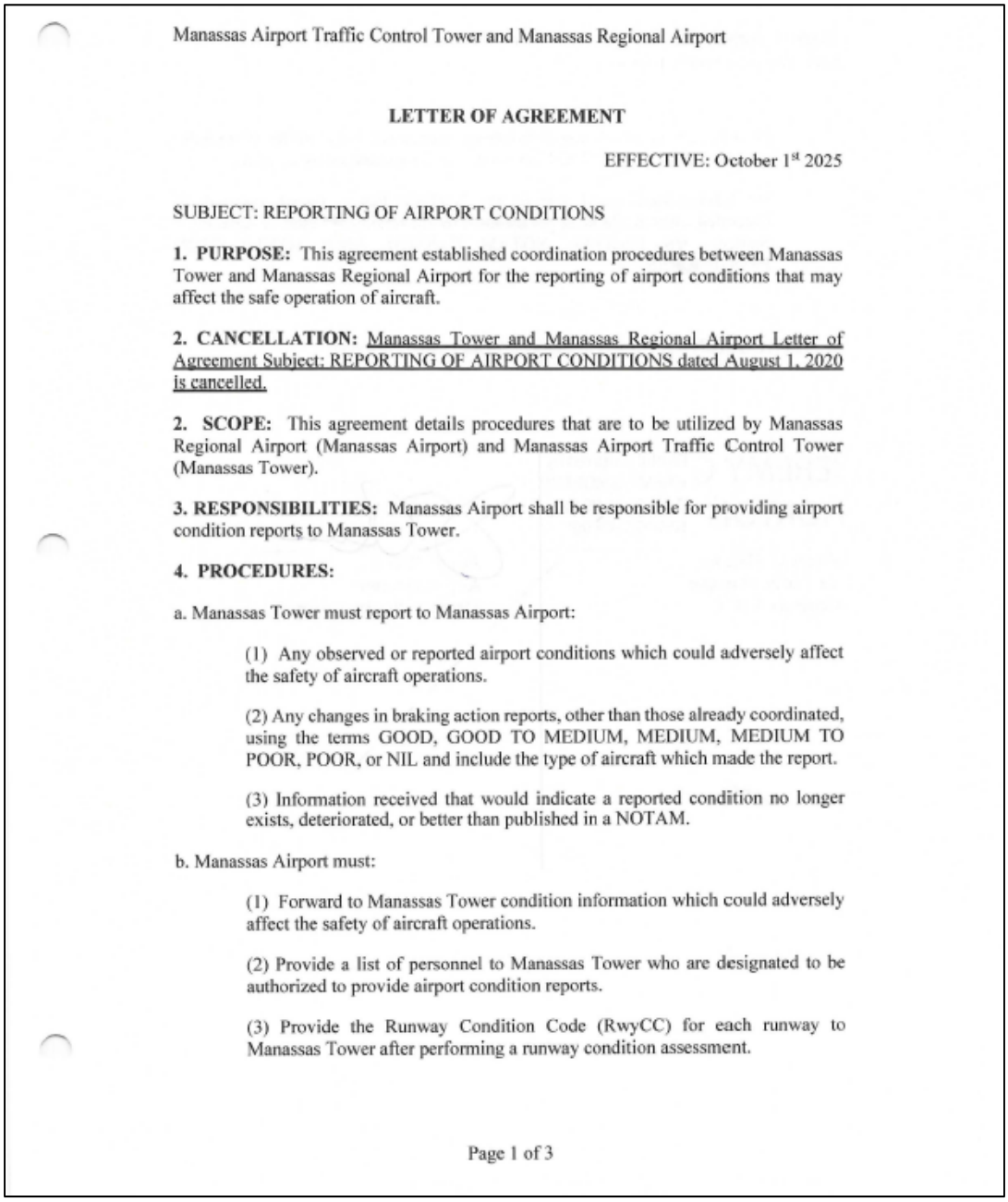
## 4.8 Conditions Not Monitored

Should staff not be present on the airport, due to operation hours or staffing requirements, the Airport will issue a field condition NOTAM followed by "CONDITIONS NOT MONITORED." This will only be applicable when the ATCT is closed and staff is not present.

# 5.0 Letters of Agreement Between Manassas Tower and Manassas Regional Airport

The Manassas Regional Airport has multiple Letters of Agreement (LOA) with the Manassas Tower. This section includes applicable LOAs that may apply when executing the contents of this plan.

## 5.1 Reporting of Airport Conditions



Manassas Airport Traffic Control Tower and Manassas Regional Airport

**LETTER OF AGREEMENT**

EFFECTIVE: October 1st 2025

SUBJECT: REPORTING OF AIRPORT CONDITIONS

**1. PURPOSE:** This agreement established coordination procedures between Manassas Tower and Manassas Regional Airport for the reporting of airport conditions that may affect the safe operation of aircraft.

**2. CANCELLATION:** Manassas Tower and Manassas Regional Airport Letter of Agreement Subject: REPORTING OF AIRPORT CONDITIONS dated August 1, 2020 is cancelled.

**2. SCOPE:** This agreement details procedures that are to be utilized by Manassas Regional Airport (Manassas Airport) and Manassas Airport Traffic Control Tower (Manassas Tower).

**3. RESPONSIBILITIES:** Manassas Airport shall be responsible for providing airport condition reports to Manassas Tower.

**4. PROCEDURES:**

a. Manassas Tower must report to Manassas Airport:

(1) Any observed or reported airport conditions which could adversely affect the safety of aircraft operations.

(2) Any changes in braking action reports, other than those already coordinated, using the terms GOOD, GOOD TO MEDIUM, MEDIUM, MEDIUM TO POOR, POOR, or NIL and include the type of aircraft which made the report.

(3) Information received that would indicate a reported condition no longer exists, deteriorated, or better than published in a NOTAM.

b. Manassas Airport must:

(1) Forward to Manassas Tower condition information which could adversely affect the safety of aircraft operations.

(2) Provide a list of personnel to Manassas Tower who are designated to be authorized to provide airport condition reports.

(3) Provide the Runway Condition Code (RwyCC) for each runway to Manassas Tower after performing a runway condition assessment.

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Manassas Airport Traffic Control Tower and Manassas Regional Airport
Reporting of Airport Conditions

(4) Advise Manassas Tower of movement area closures at least ten (10) minutes prior to issuing any NOTAM, unless it is an immediate safety concern.

(5) Advise Manassas Tower of any NOTAM that is issued, updated, or cancelled when available as per the most recent version of Letter of Agreement Subject: US DIGITAL NOTAM SYSTEM AND NOTIFICATION PROCEDURES.

**5. ATTACHMENT 1:** Airport Conditions – Designated Personnel

JEREMY G HORTON Digitally signed by JEREMY G HORTON Date: 2025.09.02 10:54:25 -04'00'

Jeremy G. Horton
Air Traffic Manager
Manassas ATCT

Juan E. Rivera
Airport Director
Manassas Regional Airport

Manassas Airport Traffic Control Tower and Manassas Regional Airport
Reporting of Airport Conditions

**ATTACHMENT 1: Airport Conditions – Designated Personnel**

## NOTAM AUTHORIZATION FORM

*Nationwide number for issuing NOTAMs: 877-487-6867*

| | | |
|---|---|---|
| Airport(s) Name | Manassas Regional Airport | |
| Airport ID(s) | KHEF | |
| City / State | Manassas, Virginia | |
| Airport Manager | Juan E. Rivera | |
| E-Mail(s) | jrivera@manassasva.gov | |
| Phone Number(s) | Work: 703-361-1882 | Cell: 571-238-0520 |

| | | |
|---|---|---|
| NOTAM Manager Administrators (If Applicable) | Richard Allabaugh/Jolene Berry | |
| E-Mail(s) | rallabaugh@manassasva.gov; jberry@manassasva.gov | |
| Phone Number(s) | Work: 703-361-5488 | Cell: 571-221-9411/571-233-0230 |

| | | |
|---|---|---|
| Airport Operations Phone Number(s) | Daytime | After Hours |
| | 703-361-5488 | 703-361-5488 |

| | | | |
|---|---|---|---|
| Law Enforcement (Do Not Use 911) | Police | Sheriff | Customs |
| | 703-257-8000 | 703-792-6070 (PWC) | 703-661-2800 |

| FBO, Flight School / Phone Number(s) | |
|---|---|
| APP Jet Center | 703-392-5387 |
| Chantilly Air Jet Center | 703-574-0700 |
| | |

| Authorized Issuers Names | |
|---|---|
| Juan Rivera | JR |
| Jolene Berry | JK |
| Alex Del Valle Mari | AD |
| Richard Allabaugh | RA |
| Mark Woody | MW |
| Mario Reyes Bonilla | MR |
| Nick Carr | NC |
| Kenneth Hults | KH |
| | |
| | |
| | |

| | |
|---|---|
| Signature / Date | 9/3/25 |
| Please email form to: R-FFSP-PPS-CSA@leidos.com or fax to: 865-551-6205 | |
| Return Mail to: Leidos Flight Service, Attn: PPS<br>5300 Alliance Gateway Fwy, Suite 500, Fort Worth, TX 76177-3707 | |

09/05/2022

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## 5.2 Operations on Closed Runways/Taxiways

Manassas Airport Traffic Control Tower and Manassas Regional Airport

**LETTER OF AGREEMENT**

EFFECTIVE: October 1st 2025

SUBJECT: OPERATIONS ON CLOSED RUNWAYS/TAXIWAYS

**1. PURPOSE:** To establish procedures between Manassas Air Traffic Control Tower (Manassas Tower) and Manassas Regional Airport (Manassas Airport) for vehicles and or personnel operating on runways or taxiway that are closed by Notice to Airmen (NOTAM).

**2. CANCELLATION:** Manassas Tower/Manassas Regional Airport Letter of Agreement Subject: OPERATIONS ON CLOSED RUNWAYS/TAXIWAYS dated January 1, 2020 is cancelled.

**3. SCOPE:** This agreement details procedures that are to be utilized by Manassas Tower and Manassas Regional Airport for vehicles and/or personnel operating on runways or taxiways that are closed by a NOTAM.

**4. DEFINITIONS:**

a. CLOSED RUNWAY – A Closed Runway is any runway at the Manassas Regional Airport that is closed to aircraft operations by NOTAM. Closures may include but are not limited to construction, maintenance, disabled aircraft, snow removal, or environmental hazards.

b. CLOSED TAXIWAY – A Closed Taxiway is any taxiway at the Manassas Regional Airport that is closed to aircraft operations by a NOTAM. Closures may include but are not limited to construction, maintenance, disabled aircraft, snow removal, or environmental hazards.

**3. RESPONSIBILITIES:**

a. Manassas Tower must be responsible for reporting any unsafe situation in which Manassas Airport needs to act and coordinate vehicle and/or personnel traffic to the closed area(s).

b. Manassas Airport must be responsible for coordinating closures and placing barricades (when appropriate) on the closed area(s).

**4. PROCEDURES:**

a. Manassas Tower must:

(1) Report any unsafe situation to Manassas Regional Airport, as per Letter of Agreement (LOA) "Safety Checks", in which action needs to be taken.

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Manassas Airport Traffic Control Tower and Manassas Regional Airport
Operations on Closed Runways/Taxiways

(2) After initial clearance, permit vehicles and/or personnel to operate freely on any closed runway or taxiway without clearance.

(3) Place a cautionary advisory concerning Work in Progress on the Automatic Terminal Information System (ATIS).

b. Manassas Airport must:

(1) Coordinate and issue the appropriate closure NOTAM(s) of the affected area(s) with Manassas Tower.

(2) Require that all approved vehicle and/or personnel be equipped with a two-way radio and contact Manassas Tower on the assigned frequency for clearance prior to entering the Movement Areas.

(3) As appropriate and when necessary, place barricades and/or runway closure markers on the affected area(s).

(4) As appropriate and when necessary, disable the airfield lighting system for the affected area(s) as per Letter of Agreement "Operation of Airport Lighting."

(5) Be permitted to operate vehicles and or personnel freely on any closed runway or taxiway without clearance from Manassas Tower.

(6) Require and reinforce to vehicle operators to give way to all taxiing aircraft while operating on a closed taxiways and/or runways; being particular cautious on runway crossings.

(7) Require vehicle operators to acquire initial clearance to the closed taxiway and/or runway and report when clear the closed area(s).

(8) Require that vehicle operators do not block open taxiways or apron entrances without prior coordination with Manassas Tower.

a. If a taxiway or apron entrance become blocked, the appropriate NOTAM must be issued and coordinated with Manassas Tower.

Page 2 of 3

Manassas Airport Traffic Control Tower and Manassas Regional Airport
Operations on Closed Runways/Taxiways

JEREMY G HORTON
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Date: 2025.09.02 10:48:25 -04'00'

Jeremy G. Horton
Air Traffic Manager
Manassas ATCT

Juan E. Rivera
Airport Director
Manassas Regional Airport

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## 5.3 Identification of Airport Vehicles

Manassas Airport Traffic Control Tower and Manassas Regional Airport

**LETTER OF AGREEMENT**

EFFECTIVE: October 1st 2025

SUBJECT: IDENTIFICATION OF AIRPORT VEHICLES

1. **PURPOSE:** This agreement establishes responsibilities and procedures for identifying vehicles when operating on the Movement and Non-Movement areas.

2. **CANCELLATION:** Manassas Tower/Manassas Regional Airport Letter of Agreement Subject: IDENTIFICATION OF AIRPORT VEHICLES dated August 1, 2020 is cancelled.

3. **SCOPE:** This agreement details procedures that are to be utilized by Manassas Regional Airport (Manassas Airport) and Manassas Airport Traffic Control Tower (Manassas Tower).

4. **DEFINITIONS:**

   a. AIRPORT OPERATIONS VEHICLES – Vehicles routinely used by airport operations and maintenance personnel for airport inspection, airfield service, maintenance, and/or duties associated with airfield operations on the Non-Movement and Movement Area.

   b. AIRCRAFT SUPPORT VEHICLES – Vehicles that are routinely used in the Non-Movement area to support aircraft operations (e.g. aircraft tugs, baggage/cargo tractors or trucks, and aviation fuel trucks).

   c. EMERGENCY VEHICLES – Vehicles that are authorized in the Movement and Non-Movement areas for emergency use or for the purpose of onsite accident/incident response.

   d. OTHER VEHICLES – Vehicles that are not routinely authorized on the Movement Area (e.g. construction vehicles, contractors).

Page 1 of 5

Manassas Airport Traffic Control Tower and Manassas Regional Airport
Identification of Airport Vehicles

**5. RESPONSIBILITIES:**

a. Manassas Tower must:

(1) When operational, have jurisdictional and control responsibility for all vehicles operating on the Movement Areas. Information transmitted by Manassas Tower to vehicles operating on the Non-Movement areas is advisory in nature and does not imply control responsibility.

(2) Recognize vehicle call signs as being the entire vehicle and/or personnel associated with the assigned call sign (similar to aircraft call signs).

(3) Manassas Tower shall notify Manassas Regional Airport of any vehicle operating on the movement area that is not under two-way radio communication with the Manassas Tower. Notification shall be done exclusively on the Operations Line: (703) 361-5488. If no one answers Manassas Tower must leave a message in order to generate a response. If no response is received within 5 minutes, personnel shall contact the Maintenance Line: (703) 361-5438. If no one answers, Manassas Tower must leave a message in order to generate a response.

(4) Deny access to any vehicle that is trying to access the Movement Area that is using a call sign not previously coordinated or not included on the list provided by Manassas Regional Airport.

(5) Deny access to any vehicle that is trying to access the Movement Area that is not equipped with an operational beacon or construction flag, if applicable.

b. Manassas Regional Airport shall:

(1) Require all vehicles to be marked and lighted as applicable and required by the most recent version of Advisory Circular 150/5210-5: *Painting, Marking, and Lighting of Vehicles Used on an Airport.*

(2) Require that all approved vehicles be equipped with a two-way radio and contact Manassas Tower on the assigned frequency for clearance prior to entering the Movement Area.

(3) Require vehicle operators to use a precoordinated call signs to identify themselves to Manassas Tower. Call signs will only include the company name and vehicle number.

a. Airport Operations Vehicles – "Airport One," "Airport Three," "Airport One Five," etc.
b. Airport Support Vehicles – "APP One," "FAA Five," etc.

Manassas Airport Traffic Control Tower and Manassas Regional Airport
Identification of Airport Vehicles

c. Emergency Vehicles – "ARFF 1" "Fire Command" etc.
d. Other Vehicles – "Contractor One," "Contractor Two," etc.

(4) When the tower is closed, require all vehicle operators to self-announce their positions using the Common Traffic Advisory Frequency (CTAF) 133.1MHz.

(5) Be responsible for the establishment of qualifications and training vehicle operators who have been authorized to operate on the Movement Areas as required by the most recent version of Advisory Circular 150/5210-20: *Ground Vehicle Operations on Airports.*

(6) Provide a call sign roster to the Manassas Tower for those operators who are authorized to access the movement areas. This roster may be updated on an as needed basis.

(7) Provide prior coordination for all temporary call signs that are not included in the call sign roster (e.g. construction operations, surveying, etc.).

(8) Provide an escort for all vehicles requiring access to or from the movement area or Runway Safety Area (RSA) that are not equipped with two-way radio communications.

6. ATTACHMENT 1. Vehicle Layouts

7. ATTACHMENT 2. Call Sign Roster

JEREMY G HORTON Digitally signed by JEREMY G HORTON Date: 2025.09.02 10:41:52 -04'00'

Jeremy G. Horton
Air Traffic Manager
Manassas ATCT

Juan E. Rivera
Airport Director
Manassas Regional Airport

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Manassas Airport Traffic Control Tower and Manassas Regional Airport
Identification of Airport Vehicles

**ATTACHMENT 1: Vehicle Layouts**

**Airport Operations Vehicles**


**Emergency Vehicles**


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Manassas Airport Traffic Control Tower and Manassas Regional Airport
Identification of Airport Vehicles

**ATTACHMENT 2: Call Sign Roster**

| Company | Call Sign | Equipment |
|---|---|---|
| APP Jet Center | APP 1 | Tug |
| APP Jet Center | APP 2 | Tug |
| APP Jet Center | APP 3 | Tug |
| APP Jet Center | APP 4 | Tug |
| APP Jet Center | APP 5 | Tug |
| APP Jet Center | APP 6 | Pickup |
| APP Jet Center | APP 33 | Pickup |
| Chantilly Air | Chantilly 1 | Tug |
| Chantilly Air | Chantilly 2 | Tug |
| Chantilly Air | Chantilly 3 | Pickup |
| Chantilly Air | Chantilly 4 | Pickup |
| FAA | FAA 1 | Pickup |
| FAA | FAA 2 | Pickup |
| FAA | FAA 3 | Pickup |
| FAA | FAA 4 | Pickup |
| FAA | FAA 5 | Pickup |
| FAA | FAA 6 | Pickup |
| FAA | FAA 7 | Pickup |
| FAA | FAA 8 | Pickup |
| FAA | FAA 9 | Pickup |
| FAA | FAA 10 | Pickup |
| FAA | FAA 11 | Pickup |
| FAA | FAA 12 | Pickup |
| FAA | FAA 13 | Pickup |
| Manassas Regional Airport - ARFF | ARFF 1 | ARFF Fire Truck |
| Manassas Regional Airport - ARFF | ARFF 2 | ARFF Fire Truck |
| Manassas Regional Airport - ARFF | ARFF 3 | Utility Pickup |
| Manassas Regional Airport | Airport 1 | Pickup |
| Manassas Regional Airport | Airport 2 | Dump Truck |
| Manassas Regional Airport | Airport 3 | Pickup |
| Manassas Regional Airport | Airport 4 | Utility Pickup |
| Manassas Regional Airport | Airport 5 | Pickup |
| Manassas Regional Airport | Airport 6 | Skidsteer |
| Manassas Regional Airport | Airport 7 | Snow Blower |
| Manassas Regional Airport | Airport 8 | Utility Vehicle |
| Manassas Regional Airport | Airport 9 | Blue Tractor |
| Manassas Regional Airport | Airport 10 | Snow Blower |
| Manassas Regional Airport | Airport 11 | Mower |
| Manassas Regional Airport | Airport 12 | Mower |
| Manassas Regional Airport | Airport 13 | Mower |
| Manassas Regional Airport | Airport 14 | Snow Broom |
| Manassas Regional Airport | Airport 15 | Pickup |
| Manassas Regional Airport | Airport 16 | Green Tractor |
| Manassas Regional Airport | Airport 17 | Mower |
| Manassas Regional Airport | Airport 34 | **Radio Comms Only (No Vehicle)** |

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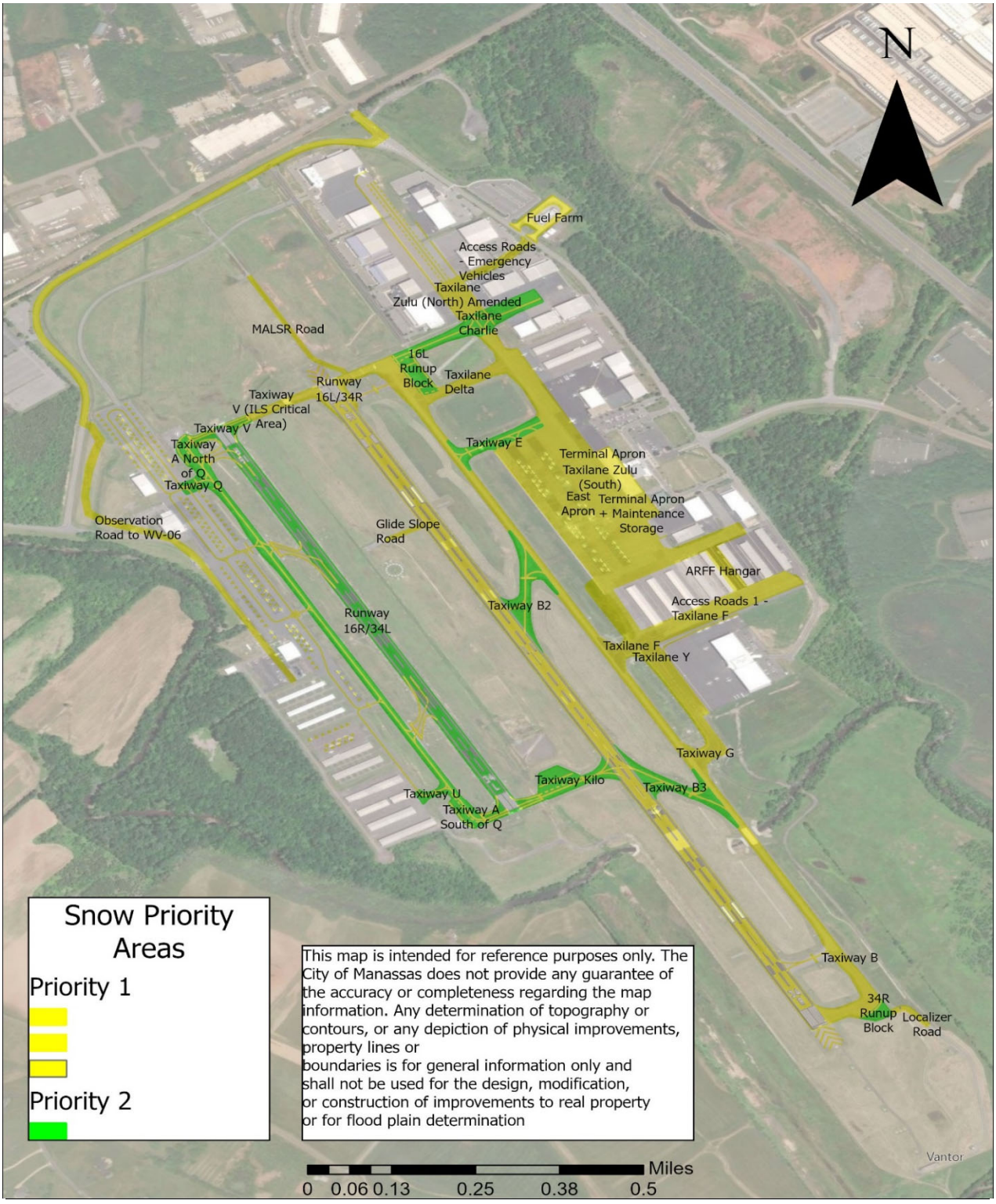
# Appendix A

## Snow Removal Priorities



# Appendix B

## Definitions

This appendix identifies definitions used throughout the Snow and Ice Control Plan. Applicable definitions are taken from the most recent version of AC 150/5200-30, ***Airport Field Condition Assessments and Winter Operations Safety***. A comprehensive list and examples can also be found in this AC.

**a. Compacted Snow.** Compacted snow is snow that has been compressed and consolidated into a solid form that resists further compression such that an airplane will remain on its surface without displacing any of it. If a chunk of compressed snow can be picked up by hand, it will hold together or can be broken into smaller chunks rather that falling away as individual snow particles. **Note:** A layer of compacted snow over ice must be reported as compacted snow only.

**b. Contaminant.** A contaminant is a deposit such as frost, any snow, slush, ice, or water on an airport pavement where the effects could be detrimental to the friction characteristics of the pavement surface.

**c. Contaminated Runway.** For purposes of generating a runway condition code and airplane performance, a runway is considered contaminated when more than 25 percent of the overall runway length and width coverage or cleared width is covered by frost, ice, or any depth of snow, slush, or water. When runway contaminants exist, but overall coverage within the area of the runway that is being maintained is 25 percent or less, the contaminants will still be reported. However, a runway condition code will not be generated.

**d. Dry Runway/Pavement.** Use the term "DRY" to describe runway/pavement surfaces that are neither wet nor contaminated. A FICON NOTAM must not be originated for the sole purpose of reporting a dry runway. A dry runway surface should be reported only when there is need to report conditions on the remainder of the surface.

**e. Dry Snow.** Dry snow is snow that has insufficient free water to cause it to stick together. This generally occurs at temperatures well below 32° F (0° C). If when making a snowball, it falls apart, the snow is considered dry.

**f. FICON (Field Condition Report).** A FICON is a Notice to Airmen (NOTAM) generated to reflect pavement surface conditions on runways, taxiways, and aprons and Runway Condition Codes (RwyCCs) if greater than 25 percent of the overall runway length and width coverage or cleared width of the runway is contaminated.

**g. Frost.** Frost consists of ice crystals formed from airborne moisture that condenses 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.

**h. Ice.** Ice is the solid form of frozen water including ice that is textured (i.e., rough or scarified ice). **Note:** A layer of ice over compacted snow must be reported as ice only.

**i. Layered Contaminant.** A layered contaminant is a contaminant consisting of two overlapping contaminants. The RCAM identifies the approved list of layered contaminants, including:

**1.** Dry Snow over Compacted Snow

**2.** Wet Snow over Compacted Snow

**3.** Slush over Ice

**4.** Water over Compacted Snow

**5.** Dry Snow over Ice

**6.** Wet Snow over Ice

**j. Mud.** Mud is wet, sticky, soft earth material.

**k. Multiple Contaminants.** Multiple contaminants are a combination of contaminants (as identified in the RCAM) observed on paved surfaces. When reporting multiple contaminants, only the two most prevalent contaminants are reported. When reporting on runways, up to two contaminant types may be reported for each runway third. The Runway Condition Code (when applicable) will be based on the most hazardous contaminant, when both contaminants are not from the same category in the RCAM. The reported contaminants may consist of a single ***and*** layered contaminant, two single contaminants, or two layered contaminants. The reporting of "multiple contaminants" represent contaminants which are located adjacent to each other, not to be confused with a "layered contaminant" which is overlapping.

**l. Primary Runway.** Primary Runways are runways being actively used or expected to be used during existing or anticipated adverse meteorological conditions, where the majority of the takeoff and landing operations will take place **(e.g. Runway 16L/34R)**.

**m. Secondary Runway.** Secondary runways are runways that support a primary runway and are less operationally critical. Takeoff and landing operations on such a runway are generally less frequent than on a primary runway. Snow removal operations on these secondary runways should not occur until Priority 1 surfaces are satisfactorily cleared and serviceable **(e.g. Runway 16R/34L)**.

**n. Runway Condition Assessment Matrix (RCAM).** The RCAM is the tool by which an airport operator will assess a runway surface when contaminants are present.

**o. Runway Condition Code (RwyCC).** Runway Condition Codes describe runway conditions based on defined contaminants for each runway third. Use of RwyCCs harmonizes with ICAO Annex 14, providing a standardized "shorthand" format (e.g., 4/3/2) for reporting.

RwyCCs (which replace the reporting of Mu values) are used by pilots to conduct landing performance assessments.

**p. Slush.** Slush is snow that has water content exceeding a freely drained condition such that it takes on fluid properties (e.g., flowing and splashing). Water will drain from slush when a handful is picked up. This type of water-saturated snow will be displaced with a splatter by a heel and toe slap-down motion against the ground.

**q. Water.** Water is the liquid state of water. For purposes of condition reporting and airplane performance, water is greater than 1/8-inch (3mm) in depth.

**r. Wet Ice.** Wet ice is ice that is melting, or ice with a layer of water (any depth) on top.

**s. Wet Runway.** A runway is wet when it is neither dry nor contaminated. For purposes of condition reporting and airplane performance, a runway can be considered wet when more than 25 percent of the overall runway length and width coverage or cleared width being used is covered by any visible dampness or water that is 1/8-inch (3 mm) or less in depth.

**t. Wet Snow.** Wet snow is snow that has grains coated with liquid water, which bonds the mass together, but that has no excess water in the pore spaces. A well-compacted, solid snowball can be made, but water will not squeeze out.