

# Snow and Ice Control Plan

## Ogden-Hinckley Airport

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## Phase #1

### Pre- and Post-Winter Season Topics

#### Chapter 1. Pre-Season Actions

##### 1.1 Airport Preparation

###### a) Airport Management Meetings

The Operations Personnel will typically initiate a meeting in the month of September timeframe to discuss equipment and material inventory, repair needs, staffing, budget, training, previous years issue's, and any other topics associate with snow and ice control and its plan.

###### b) Personnel Training

All personnel responsible for airport snow and ice control will receive initial training prior to performing duties and recurrent training prior to each snow season (at least once every 12 consecutive calendar months) in accordance with this plan and the Airport's Certification Manual. All training for airport personnel is conducted by the Operations Supervisor. Training records are maintained by the Operations Supervisor.

###### c) Equipment Preparation

A NAC Dynamics Runway Friction Meter is in service. The unit will be maintained, calibrated for accuracy and operated as per manufacturer recommendations.

At least 30 days prior to snow season Ogden City Feet Operations will inspect and prepare each piece of snow removal equipment. Required fluids, replacement parts, and snow removal equipment components will be inventoried and stockpiled.

##### 1.2 Snow and Ice Control Committoo (SICC) Meetings.

The Airport has developed a Snow and Ice Control Committee (SICC) to provide feedback and make recommendations to snow and ice removal operations and Snow and Ice Control Plan (SICP) updates at regular training meetings. The SICC is chaired by the Operations Supervisor and includes Operations Personnel, Airport Manager, and Federal Aviallon Administration contract tower personnel.

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During the month of September the Airport will begin notifying tenants and airport users to review and provide comments to be discussed at the season kick-off meeting of the snow removal personnel.

The following topics should be discussed in the SICG:

- **Airport Clearing Operations Discussion Topics**
  - Areas Designated as Priority I area, any new airfield infrastructure
  - Clearing operations and follow-up airfield assessments
  - Potentials for pilot or vehicular runway incursions or incidents
  - Staff requirements and qualifications (training)
  - Update training program
  - Streamline decision making process
  - Response time to keep runways, taxiways and ramp areas operational
  - Communication, terminology, frequencies, and procedures
  - Monitoring and updating of runway surface conditions
  - Issuance of NOTAMS and dissemination to ensure timely notification
  - Equipment inventory
  - Status of procurement contracts, including storage of materials
  - Validation of deicer certification letters from vendors (if applicable)
  - Procedures for storm water runoff mitigation
  - Snow hauling/disposing, snow dumps
  - New runoff requirements for containment or collection
  - Changes to contract service for clearing ramps
- **Air Carrier Ground Deicing/anti-icing programs**
  - Assessing all air carriers deicing programs by reviewing airport surface flow strategies; reviewing ground time and takeoff clearances after deicing; analyzing and adjusting airplane deicing plans
  - Maximizing efficiency of operations during icing conditions by identifying locations for airplane deicing; planning taxi routes to minimize ground times; developing rates for deiced departures; allocating departure slots; determination airport deicing crew needs; verifying communications.
- **Any requirements for containment/collection of deicing/anti-icing.**

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## **Chapter 2. Post-Event/Season Actions**

### **2.1 Post Event.**

After each snow event, airport management may host a meeting and invite to discuss any issues that have arisen from the event.

All members of the SICC will be encouraged to provide feedback to airport management before, during or following each snow event. After a significant event or a challenging operation, a separate SICC meeting will be held.

### **2.2 Post Season.**

After each snow season a SICC meeting will be held, typically in May to review the snow season issues and recommendations for changes. The same topics as pre-season should be reviewed.

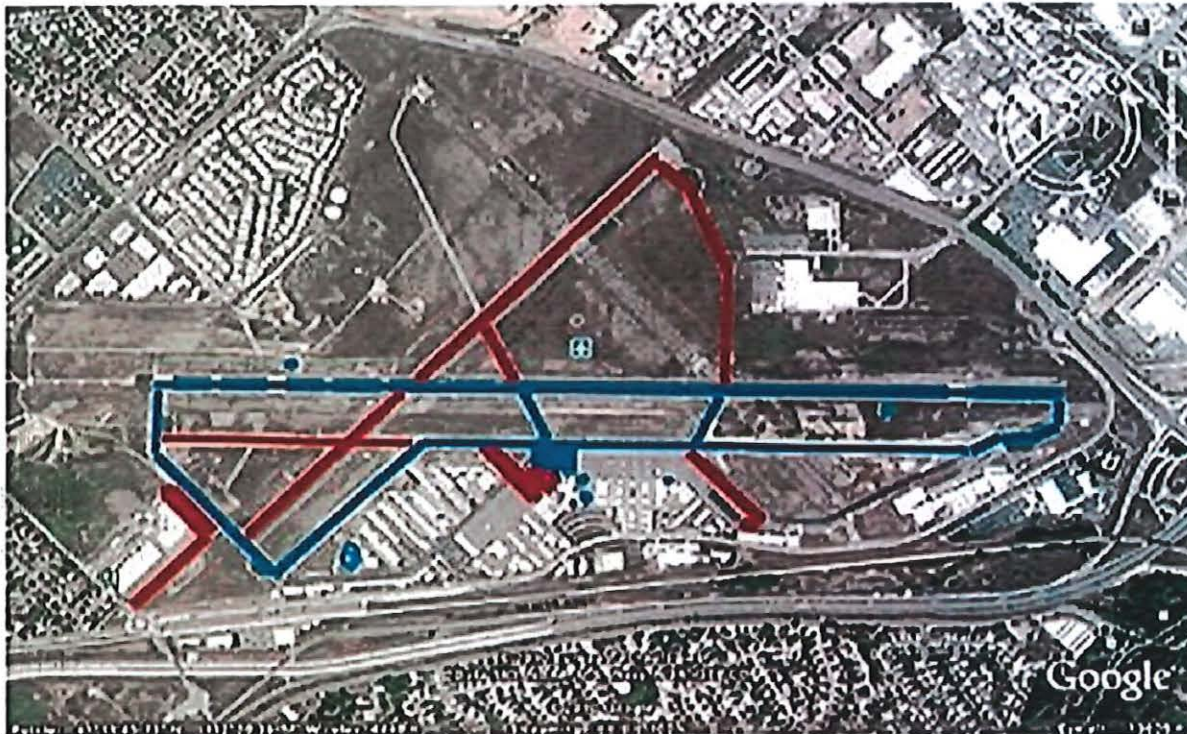
The Operations Supervisor may provide actions for each of department or sections post season, i.e. Maintenance-Inspect and repair equipment, Operations – calibrate friction tester, airport management – update SICIP.

## Phase #2

# Winter Storm Actions and Procedures

### **Section 3 - Snow Removal Operations - Continued**

**Airfield Clearing Priorities - Below is a diagram and list of priority snow removal areas.**



#### Priority 1 - Shown in Blue.

Runway 3-21

Taxiway A, C, D, B, E

Terminal Ramp

ARFF Station and Access points and operability

NAVAIDS

Fuel Farm

#### Priority 2 - Shown in Red

Runway 17-35

FBO Ramps

Taxiway C, D,

GA and Corporate Hanger Aprons and Taxilanes

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### Chapter 3. Snow Removal Action Criteria

#### 3.1 Activating Snow Removal Personnel.

The Ogden-Hinckley Airport has an operations section that handles snow removal operations. It is the responsibility of this section to do so.

a) **Weather Forecasting**

- The Operations Supervisor or designee is responsible to monitor current weather conditions daily.
- All available standard media outlets are used for forecasts
- The airport does not have a sensor system but the tower operations are utilized on an as needed basis.

b) **Chain of Command**

- The Operations section is responsible to monitor the airfield.
- The airfield is inspected daily by the Operations section.
- The Operations Supervisor is responsible for snow alerts
- The Operations Supervisor is responsible for call outs.
- The Operations Supervisor is responsible for hold overs.

c) **Triggers for Initiating Snow Removal Operations**

The triggers for snow removal broom operations will begin when any contaminants begin accumulating on pavement surfaces. Powered broom operations will be started at or before any of the depths, on the table shown below, are reached.

Precipitation	Depth in Inches
Slush	¼ inch
Wet Snow	¾ inch
Dry Snow	2 inches
Ice or Freezing Rain	RwyCC = 0

#### 3.2 Personnel Responsible.

The Operations section is responsible for all snow removal operations and related Maintenance issues. Management is responsible to see that qualified personnel, equipment, and materials are available to perform snow removal operations.

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### 3.3 Snow Control Center (SSC).

**Snow Control Center (SCC)** – The SCC at the Ogden Hinckley Airport is a mobile post staffed by the Airport Maintenance Supervisor, or designee. The Airport Manager shall ensure the following functions of the SCC are performed, as necessary, for each snow event.

1. Reporting movement area surface conditions in a timely manner (issuing NOTAMs).
2. Collecting and disseminating airfield condition information to the air carrier in a timely manner.
3. Informing the ATCT, Air Carrier, Air Taxis and other airport users of expected runway closure and opening times.
4. Managing airfield snow removal operations.
5. Managing and coordinating snow removal personnel.
6. Maintaining two-way radio equipment that is capable of communicating with inbound/outbound aircraft.
7. Serving as the prime source for Initiating FICONS, Closures, Openings, etc.

***Radios must be available and used by all equipment operators when accessing and operating in the movement area or safety areas.***

### 3.4 Airfield Clearing Priorities.

The priorities of snow removal are determined by the Operations Supervisor. These priorities are decided depending on anticipated airport users needs.

#### a) Priority 1

In the absence of a specific change in priorities the general priority 1 will be the clearing of the main runway 3/21 and the adjacent taxi ways provided at Page 4. If the airport is receiving commercial air carriers that day then the SIDA will also be included.

#### b) Priority 2

The Priority 2 operations of the snow removal plan include the clearing of Runway 16/34 and remaining taxiways and FBO ramps.

#### c) Priority 3

Priority 3 operations include all remaining ramp areas followed by areas in and around hangars.

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### 3.5 Airfield Clearance Times.

It is the goal of the snow removal operations to have all runways, taxiways, SIDA, and ramp areas open within 1/2 hour. This standard is dependent on length and depth of related snow storm. The airport will otherwise adhere to Table 1.1.

Table 1-1. Clearance Times for Commercial Service Airports

Annual Airplane Operations (includes cargo operations)	Clearance Time <sup>1</sup> (hour)
40,000 or more	3/4
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 (reference Title 49 United States Code, Section 47102(7)).

*Footnote 1:* These airports should have sufficient equipment to clear 1 inch (2.54 cm) of falling snow in eighting up to 25 lb/ft<sup>3</sup> (400 kg/m<sup>3</sup>) from Priority 1 areas within the recommended clearance times.

### 3.6 Snow Equipment List.

#### Primary Airport Snow Removal Equipment:

- 2002 Oshkosh 3 Ton Dump Truck 14ft Plow
- 2002 Oshkosh 3 Ton Dump Truck 14ft Plow
- 1993 John Deere Front-End Loader 18ft Plow and Snow Blower
- 2013 John Deere Front-End Loader 18ft Plow and Snow Blower
- 2013 Salt Dog Chemical Spreader
- 2016 Bobcat 5600 74" Snow Blade and 72" Snowblower
- 2018 International Truck with 22 ft Snow Blade and 18 ft Broom

### 3.7 Storage of Snow and Ice Control Equipment.

Some equipment is stored a heated hangar. Most equipment is stored outside.

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### 3.8 Definitions.

#### Airside Urea.

(Otherwise known as "Carbamide") The approved specifications are SAE AMS 1431, Compound, Solid Runway and Taxiway Deicing/Anti-Icing, and MIL SPEC DOD-U-10866, Technical Urea. Agricultural grade urea that meets any of these specifications, called airside urea, is acceptable.

#### Approved Chemical.

A chemical, either solid or liquid, that meets a generic SAE or MIL specification.

#### Ash

A grayish-white to black solid residue of combustion normally originating from pulverized particulate matter ejected by volcanic eruption.

#### Compacted Snow.

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 than falling away as individual snow particles.

Note: A layer of compacted snow over ice must be reported as compacted snow only.

Example: When operating on the surface, significant rutting or compaction will not occur. Compacted snow may include a mixture of snow and embedded ice; if it is more ice than compacted snow, then it should be reported as either ice or wet ice, as applicable.

#### Contaminant.

A deposit such as frost, any snow, slush, ice, or water on an aerodrome pavement where the effects could be detrimental to the friction characteristics of the pavement surface.

#### 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 runway surface area (within the reported length and the width being used) is covered by frost, ice, and any depth of snow, slush, or water.

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When runway contaminants exist, but overall coverage is 25 percent or less, the contaminants will still be reported. However, a runway condition code will not be generated

While mud, ash, sand, oil, and rubber are reportable contaminants, there is no associated airplane performance data available and no depth or Runway Condition Code will be reported

Exception: Rubber is not subject to the 25 percent rule, and will be reported as Slippery When Wet when the pavement evaluation/friction deterioration indicates the averaged Mu value on the wet pavement surface is below the Minimum Friction Level classification specified in Table 3-2 of FAA Advisory Circular 150/5320-12

### Dry (Pavement).

Describes a surface that is neither wet nor contaminated.

### Dry Runway

A runway is dry when it is neither wet, nor contaminated. For purposes of condition reporting and airplane performance, a runway can be considered dry when no more than 25 percent of the runway surface area within the reported length and the width being used is covered by:

Visible moisture or dampness, or

Frost, slush, snow (any type), or ice.

A FICON NOTAM must not be originated for the sole purpose of reporting a dry runway. A dry surface must be reported only when there is need to report conditions on the remainder of the surface

### Dry Snow.

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.

### Eutectic Temperature/Composition.

A deicing chemical melts ice by lowering the freezing point. The extent of this freezing point depression depends on the chemical and water in the system. The limit of freezing point depression, equivalent to the lowest temperature that the chemical will melt ice, occurs with a specific amount of chemical. This temperature is called the eutectic temperature, and the amount of chemical is the eutectic composition. Collectively, they are referred to as the eutectic point.

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### FICON (Field Condition Report).

A Notice to Airmen (NOTAM) generated to reflect Runway Condition Codes, vehicle braking action, and pavement surface conditions on runways, taxiways, and aprons.

Fluid Deicer/Anti-Icers. The approved specification is SAE AMS 1435, Fluid, Generic Deicing/Anti-icing, Runways and Taxiways.

### 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.

Note: 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 should be considered to have sufficient depth to consider a downgrade of the runway condition code.

Generic Solids. The approved specification is SAE AMS 1431, Compound, Solid Runway and Taxiway Deicing/Anti-icing.

### Ice.

The solid form of frozen water to include ice that is textured (i.e., rough or scarified ice).

A layer of ice over compacted snow must be reported as ice only.

### Layered Contaminant.

A contaminant consisting of two overlapping contaminants. The list of layered contaminants has been identified in the RCAM and include:

- Dry Snow over Compacted Snow
- Wet Snow over Compacted Snow
- Slush over Ice
- Water over Compacted Snow
- Dry Snow over Ice
- Wet Snow over Ice

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### Mud

Wet, sticky, soft earth material.

### Multiple Contaminants.

A combination of contaminants (as identified in the RCAM) observed on paved surfaces. When reporting multiple contaminants, only the two most prevalent / hazardous contaminants are reported. When reporting on runways, up to two contaminant types may be reported for each runway third. 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. For example

- Single contaminant and Layered contaminant.  
'Wet' and 'Wet Snow over Compacted Snow'
- Single contaminant and Single contaminant.  
'Wet Snow' and 'Slush'
- Layered contaminant and Layered contaminant.  
'Dry Snow over Compacted Snow' and 'Dry Snow over Ice'

### Oil.

A viscous liquid, derived from petroleum or synthetic material, especially for use as a fuel or lubricant.

### Runway (Primary and Secondary).

#### Primary.

Runway(s) being actively used or expected to be used under the existing or anticipated adverse meteorological conditions, where the majority of the takeoff and landing operations will take place.

#### Secondary.

Runway(s) that supports a primary runway and is 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.

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### Runway Condition Assessment Matrix (RCAM).

The tool by which an airport operator will assess a runway surface when contaminants are present

### 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 (Eg: 4/3/2) for reporting. RwyCC (which replaced Mu values) are used by pilots to determine landing performance calculations

### Sand

A sedimentary material, finer than a granule and coarser than silt.

### Slush

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.

### Slush over Ice

See individual definitions for each contaminant

### Slippery When Wet Runway.

A wet runway where the surface friction characteristics would indicate diminished braking action as compared to a normal wet runway.

Slippery When Wet is only reported when a pavement maintenance evaluation indicates the averaged Mu value on the wet pavement surface is below the Minimum Friction Level classification specified in Table 3-2 of FAA Advisory Circular 150/5320-12. Some contributing factors that can create this condition include: Rubber buildup, groove failures/wear, pavement macro/micro textures.

### Water.

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

### Wet Runway.

A runway is wet when it is neither dry nor contaminated. For purposes of condition

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reporting and airplane performance, a runway can be considered wet when more than 25 percent of the runway surface area within the reported length and the width being used is covered by any visible dampness or water that is 1/8- inch or less in depth.

### Wet Ice

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

### Wet Snow.

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.

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## **Chapter 4. Snow Clearing Operations and Ice Prevention**

### **4.1 Snow Clearing Principles.**

#### **a) Ramp and Terminal**

The overall objective for the clearing of the Ramp and Terminal area of snow is the responsibility of the Operations Supervisor. In addition to the actual operations the following objectives will be observed.

- Operations will make sure all signs are clear of snow
- Operations will make sure stockpiles of snow are moved to appropriate areas
- Operations will make sure snow piles do not exceed published height limitations
- Any potential pilot obstruction snow pile
- Operations will plan for heavy snow hauling and melting contingencies

#### **b) Runway and Taxiways**

Snow removal operations will focus on keeping the entire runway length and width clear, as near as practicable, from snow accumulations and ice buildup. Wind direction and speed and snowfall rates will impact the amount of time needed to keep the runway surface clear. When these conditions exist snow removal efforts will be concentrated on the critical center portion of the runway. The appropriate NOTAM will be issued describing runway conditions as having the center portion plowed with snow accumulations remaining on the outer sections of the surface.

#### **c) Snowbanks**

Snow bank hazards will be reported and mitigated as soon as practicable. Snow banks that cannot be immediately removed will be kept as low as possible in accordance with guidance provided in Figure 4-1 of Advisory Circular 150/5200-30 (see Appendix 2).

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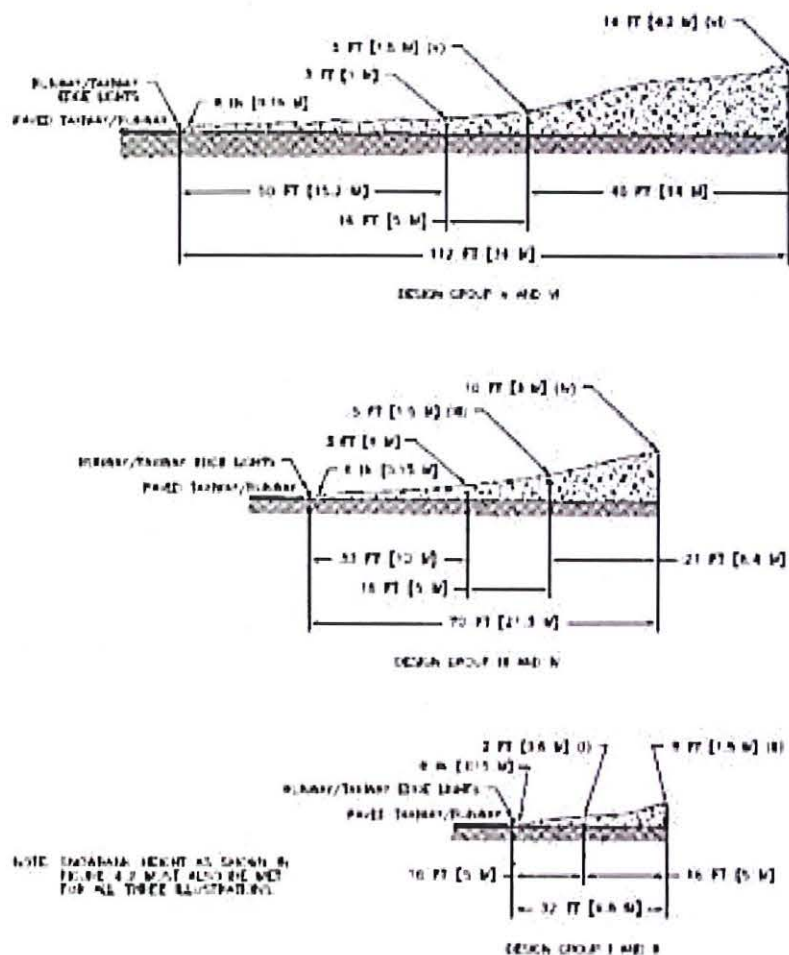


Figure 4-1. Snow Bank Profile Limits Along Edges of Runways and Taxiways with the Airplane Wheels on Full Strength Pavement (see Figure 4-2 guidance)

AC 150/5200-30C

## d) NAVAIDS

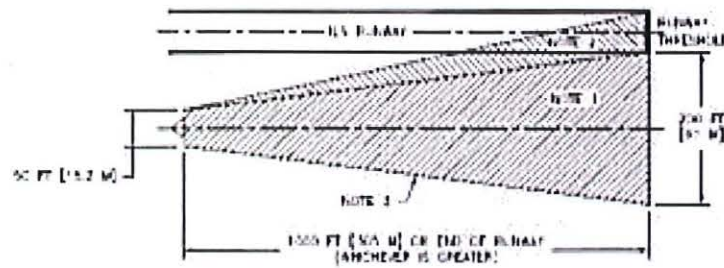
During routine daily inspections of NAVAIDS in accordance with AC 150/5340-26C all affected areas accumulating snow will be maintained to minimize any potential interruption.

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### NOTES

1. CATEGORY I CLEAR SNOW CLEARANCE AREA
2. CATEGORY I AND II CLEAR SNOW CLEARANCE AREA. THE AREA INDICATED UNDER NOTE 1 SHALL ALSO BE CLEARED.
3. THE DEPTH OF SNOWDRIFT ALONG THE EDGES OF THE CLEARED AREA SHALL BE LESS THAN 2 FEET

ACTION TAKEN	SNOW DEPTH		
	SR 45 IN (15 cm) ML. CRUS 45 IN (15 cm)	SR 6 TO 8 IN (15 TO 20 cm) ML. CRUS 16 TO 24 IN (15 TO 30 cm)	SR 10 IN (20 cm) ML. CRUS 24 IN (30 cm)
SNOW REMOVAL (SEE ABOVE TABLE)	REMOVAL NOT REQUIRED RESTORE FULL SERVICE AND CATEGORY	ALL CATEGORY I REMOVE SNOW 50 FT (15M) WIDE AT FAST APPROACH TO 200 FT (60M) WIDE AT 1000 FT (300M) OR END OF RUNWAY THRESHOLD WIDE APPROACH. ALL CATEGORIES II AND III AS ABOVE PLUS WITHIN THE AREA TO PERFORM A LINE FROM THE WIDE TO THE FAST SIDE OF RUNWAY THRESHOLD	
NO SNOW REMOVAL	RESTORE FULL SERVICE AND CATEGORY	ALL CATEGORIES RESTORE TO CATEGORY I SERVICE. CATEGORY I AIRCRAFT MINIMUM TAKES TO LOCALIZER ONLY. SPECIAL NOTAM TEXT "DUE TO SNOW ON THE RUN APPROPRIATE IDENTIFIED CLEAR TRACK, MINIMUM TEMPERATURE BASED BY LOCALIZER CRAFT FOR CATEGORY I AIRCRAFT. IF AVAILABLE CATEGORY II AND III CATEGORY II/III NOTAM	ALL CATEGORIES APPROACH RESTRICTED TO LOCALIZER ONLY MINIMA. SPECIAL NOTAM TEXT "DUE TO SNOW ON THE RUN APPROPRIATE IDENTIFIED CLEAR TRACK, MINIMUM TEMPERATURE BASED BY LOCALIZER ONLY

\* IN (NOT AUTHORIZED)

Figure 4-2 ILS CAT I and CAT II III Snow Clearance Area Depth Limitations

## 4.2 Controlling Snow Drifts.

During windy conditions airfield surfaces will be continuously monitored to ensure drifting snow does not create safety hazards for aircraft operating on the movement area. Snow drifts will be removed as necessary.

## 4.3 Snow Disposal.

Large quantities of snow will be removed to the snow storage area East of Airport Road.

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#### **4.4 Methods for Ice Control and Removal—Chemicals.**

The Ogden Airport uses the following for Ice Control Removal and applies it with Salt Dog Chemical Spreader on the back of a dump truck.

1. **Airside Urea (Otherwise known as "Carbamide")** - The approved specifications are *SAE AMS 1431A, Compound, Solid Runway and Taxiway Deicing/Anti-Icing, and MIL SPEC DOD-U-10866, Urea-Technical*. Agricultural grade urea, that meets any of these specifications called airside urea, is acceptable.

#### **4.5 Sand (for the purposes of treating a winter surfaco).**

The Ogden Hinckley Airport does not currently use sand or de-ice chemicals.

#### **4.6 Surface Incident/Runway Incursion Mitigation Procedures.**

Any surface incidents incurred by snow removal personnel will be reviewed and preventative measures will be put in place to prevent future occurrences.

Vehicles will be marked and lighted in accordance with AC 150/2510-5, Painting, Marking and Lighting of Vehicles Used on an Airport.

##### **a) Radio Communication**

Radio communication during snow removal operations is handled through a two radio system. System #1 is a ground control frequency monitored by the Air Traffic Control tower. System #2 is a small hand held walkie talkie radio for use between operations personnel so as not to interrupt ATC ground.

##### **b) Failed Radio Communication**

Failed radio communication is handled through a secondary hand held system as well as personal cell phone.

##### **c) Low Visibility and Whiteout Conditions**

Low Visibility and Whiteout conditions are handled through the closure of the airport.

##### **d) Driver Fatigue**

Snow plow operators are limited to a maximum of 14 hours with an eight hour full rest break.

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## **Chapter 5. Surface Assessment and Reporting**

### **Conducting Surface Assessments:**

The Operations section will remain aware and monitor all paved surface conditions in order to plan and carry out appropriate maintenance actions in accordance with the Snow and Ice Control plan. The airport strives to maintain a 'no worse than wet' surface condition.

The airport operator in complying with Part 139.339, at a minimum, will utilize the NOTAM system for collection, dissemination and logs of airport information to air carriers, and other airport users.

The Ogden Airport uses the following systems to report conditions. (NOTAM Manager/ENII/Phone

#### **5.1 Conducting Surface Assessments.**

Airport Operations conducts assessments of runway, taxiway, apron, and holding bay conditions to ensure that they are accurate and timely.

- These are done daily by Operations personnel
- Operations personnel use various available resources to conduct assessments (IE: Vehicles, Sensors, Pilot Reports, CFME/Decelerometers, etc.)

#### **5.2 Applying the Runway Condition Assessment Matrix (RCAM).**

##### **a) Determining Runway Conditions**

The Ogden Airport will determine the type of contaminant present on surfaces from the approved contaminant list. We will use the Runway Condition Assessment Matrix (RCAM)

##### **Step 1: Runway Condition Code (RwyCC) 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 operator in this case, will simply report the contaminant percentage, type and depth for each third of the runway, to include any associated treatments or improvements.

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Or

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 codes, 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 operator determine that RwyCCs assigned accurately reflect the runway conditions and performance, no further action is necessary, and the RwyCCs generated may be disseminated.

#### b) Downgrade Assessment Criteria

When observations indicate a more slippery condition than generated by the RCAM, the airport operator may downgrade the RwyCC(s). When applicable, the downgrade of RwyCCs may be based on friction ( $\mu$ ) readings, vehicle control or pilot reported braking action or temperature

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

#### c) Upgrade Assessment Criteria Based on Friction Assessments.

RwyCCs of 0 or 1 may only be upgraded when the following requirements are met.

1. All observations, judgment, and vehicle braking action support the higher RwyCC, and
2. Mu values of 40 or greater are obtained for the affected third(s) of the runway by a calibrated friction measuring device that is operated within allowable parameters.
3. This ability to raise the reported RwyCC to no higher than a code 3 can only be applied to those runway conditions listed under code 0 and 1 in the RCAM. (See footnote 2 on the RCAM.)

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4. Airport operations will 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.

1. Airfield condition reporting will be done in accordance with Part 139, the Airport Certification Manual and the most current version of AC 150/5200-28.
2. Airfield condition information is collected and disseminated to affected air carriers and other airport users in a timely manner. This information will be documented and maintained as required by Part 139.
3. Rapidly changing airfield condition information may be reported to arriving and departing pilots over the CTAF frequency. Airport personnel must report conditions accurately and in a timely manner (see guidance in CERTALERT 08-11 and 09-13).

### **5.3 Runway Friction Surveys, Equipment, and Procedures.**

The Ogden Airport uses the NAC Dynamics friction meter for MU readings.

#### **a) Conditions Acceptable to Use Decolorimeters or Continuous Friction Measuring Equipment to Conduct Runway Friction Surveys on Frozen Contaminated Surfaces.**

The data obtained from such runway friction surveys are only considered to be reliable when the surface is contaminated under any of the following conditions.


- Ice or wet ice.
- Compacted snow at any depth.
- Dry snow 1 inch or less.
- Wet snow or slush 1/8 inch or less.

#### **b) When to Conduct**

**Runway Friction Assessments** – Friction assessments will be conducted whenever it is thought that the information will be helpful in the overall snow/ice removal effort, and the conditions are within the limits above. Within those conditions, runway friction assessments will be conducted as follows:

- When the central portion of the runway, centered longitudinally along the runway centerline, is contaminated over a distance of 500 feet or more.
- Following all snow clearing, anti-icing, deicing, or sanding operations.

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- Immediately following any aircraft incident or accident on the runway, recognizing that responding ARFF or other circumstances may restrict immediate access.

### **c) How to Conduct**

**Location and Direction to Conduct Runway Friction Assessments -** Runway friction assessments will be conducted approximately 10 feet from the runway centerline. Unless surface conditions are noticeably different on the two sides of the runway centerline, only one pass is needed, and it may be conducted on either side. Assessments will be conducted on the active runway, i.e., in the same direction that aircraft are landing.

### **d) Calibration**

To ensure that data collected using the NAC Dynamics runway friction meter is accurate, qualified personnel will follow the manufacturer's operating instructions and conduct friction assessments only when the pavement surface being tested has any of the following contaminants.

- Ice or wet ice – "wet ice" is a term used to define ice surfaces that are covered with a thin film of moisture caused by melting. The liquid water film deposit is of minimal depth of 0.04 inch or less, insufficient to cause hydroplaning.
- Compacted snow at any depth.
- Dry snow 1 inch or less.
- Wet snow or slush 1/8 inch or less.

### **5.4 Taxiway, Apron, and Holding Bay Assessments.**

Assessments to these surfaces will occur when contaminants are present, and whenever a contaminant is present on the surface. Assessments will occur anytime the pavement is worse than wet. Surfaces will be monitored on a regular, continual basis.

### **5.5 Surface Condition Reporting.**

Personnel responsible for implementing the SICP will carefully monitor changing airfield conditions and disseminate information about those conditions via the NOTAM System in a timely manner to airport users.

**Runway:** Runway condition reports will occur when contaminants are present on a runway surface via the Federal NOTAM System. Condition Reports and RwyCCs will be updated as necessary whenever conditions change, such as a contaminant type, depth, percentage or treatment/width change.

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**Taxiway, Apron or Holding Bay:** Taxiway, Apron or Holding bay condition reports will occur when contaminants are present on these surfaces via the Federal NOTAM System. NOTAMS will be updated as necessary whenever conditions change, such as a contaminant type, depth, percentage or treatment/width change.

There are additional potential procedures for reporting;

- Triggers for a runway condition report to be updated or changed include time and changing weather conditions.
- Triggers for a taxiway, apron or holding bay condition report to be updated or changed include time and changing weather conditions
- When the cleared runway width is less than full width, and there are uncleared runway edges with a different condition from cleared width on runway appropriate NOTAMS will be made.

Any time a change to the surface conditions occurs which could be any of the following:

- active snow event
- plowing/brooming/deicing/sanding
- rapidly rising or falling temperatures
- rapidly changing conditions

Airport personnel will do runway and taxiway checks of the airport.

- Daily or more often as needed Operations personnel will assess the runway conditions
- This information is transferred electronically, by I-Pad, to all users
- NOTAM Manager systems are used to convey this information

The term 'DRY' is used to describe a surface that is neither wet nor contaminated. While a FICON NOTAM is not generated for the sole purpose of reporting a dry runway, a dry surface will be reported when there is need to report conditions on the remainder of the surface. (For example: snow is present on the first two thirds of the runway.)

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**5.6 Reportable Contaminants without Performance Data.**

If present, unable to be removed, and posing no hazard, mud will be reported with a measured depth. Ash, oil, sand, and rubber contaminants will be reported without a measured depth. These contaminants will not generate a RwyCC.

**5.7 Slippery When Wet Runway.**

For runways where a friction survey (for the purposes of pavement maintenance) indicates the averaged Mu value at 40 mph on the wet pavement surface failed to meet the minimum friction level classification specified in AC 150/5320-12, the airport will report via the NOTAM system a RwyCC of # for the entire runway (by thirds 3/3/3 when runway is wet).

A runway condition description of 'Slippery When Wet' will be used for this condition

If it is determined by the airport that a downgrade is necessary, the downgrade will be made to all three runway thirds match (i.e. 3/3/3, 2/2/2, 1/1/1).

The NOTAM will be cancelled when the minimum runway friction level classification has been met or exceeded

**5.8 Requirements for Closures.**

Runways receiving a NIL braking (either pilot reported or by assessment by the airport) are unsafe for aircraft operations and will be closed immediately when this unsafe condition exists.

**Additional Information regarding potential airport closure;**

1. Airfield condition reporting will be done in accordance with Part 139, the Airport Certification Manual and the most current version of AC 150/5200-28.
2. Airfield condition information is collected and disseminated to affected air carriers and other airport users in a timely manner. This information will be documented and maintained as required by Part 139.
3. Rapidly changing airfield condition information may be reported to arriving and departing pilots over the CTAF frequency. Airport personnel must report conditions accurately and in a timely manner (see guidance in CERTALERT 08-11 and 09-13).
4. LOA's with Tower organization exist for them to also advise Airport Manager and close airport.

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When previous PIREPs have indicated GOOD or MEDIUM braking action, two consecutive POOR PIREPS should be taken as evidence that surface conditions may be deteriorating. If the airport operator has not already instituted its continuous monitoring procedures, an assessment should occur before the next operation. If the airport operator is already continuously monitoring runway conditions, this assessment should occur as soon as air traffic volume allows.

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

### **5.9 Continuous Monitoring and Deteriorating Conditions.**

Under deteriorating conditions, the airport will take all reasonable steps using available equipment and materials that are appropriate for the condition to improve the braking action. If braking action cannot be improved, and the surface is not NIL, the airport will continually monitor the runways, taxiways, aprons and holding bays to ensure braking does not become NIL.

#### **Including but not limited to:**

- Frozen or freezing precipitation.
- Falling air or pavement temperatures that may cause a wet runway to freeze.
- Rising air or pavement temperatures that may cause frozen contaminants to melt.
- Removal of abrasives previously applied to the runway due to wind or airplane effects.
- Frozen contaminants blown onto the runway by wind.

**Continuous Monitoring** – In accordance with AC 150/5200-30, when two consecutive 'POOR' braking action reports are received continuous monitoring will be in effect as follows:

- Airfield condition assessments will be conducted hourly and an Airfield Condition Report will be completed for each assessment (see Appendix 3).
- Updated airfield condition information will be disseminated to the air carrier and other airport users.
- NOTAMs will be issued and updated, as required.

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- Weather conditions will be monitored to include, forecasted weather patterns, temperature and wind speed/direction changes.
- Pilot reports will be monitored.
- Friction tests will be conducted to determine if runway friction conditions are improving or deteriorating.

### 5.10 Surface Conditions Not Being Monitored/Reported

**Airfield Condition Monitoring** – The Airport Manager or designee shall be responsible to ensure airfield conditions are monitored as required. Airfield condition assessments shall be made as conditions warrant.

Surface conditions at the Ogden Hinckley Airport may not be monitored after the ATCT closes. The following remark has been added to the Airport Facility Directory (AFD).

*Airfield Surface Conditions Are Unmonitored Between 0300 - 1400z*

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