U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Notices to Airmen (NOTAMs) for Airport Operators

Date: 12/30/2016 **AC No:** 150/5200-28F
Initiated By: AAS-300

1 **Purpose.**

This advisory circular (AC) provides guidance on using the NOTAM system for reporting airport facilities changes or outages and for utilizing the Runway Condition Assessment Matrix for airport condition reporting. This AC prescribes procedures used to describe, format, and disseminate information on unanticipated or temporary changes to components of, or hazards in, the National Airspace System (NAS). The Notice to Airmen (NOTAM) system is not intended to be used to advertise data already published or charted.

2 **Cancellation.**

This AC cancels AC 150/5200-28E, *Notices to Airmen (NOTAMs) for Airport Operators*, dated October 8, 2015.

3 **Applicability.**

The information contained in this AC is intended primarily for airport operators, or their agents, who monitor and manage the day-to-day operation of the airport and who may also have operational responsibility for certain airport-related facilities. The primary audience for this AC is any office responsible for originating NOTAMs. Authorized personnel assigned to facilities that collect, originate, and/or disseminate NOTAMs must be familiar with the provisions of this AC that pertain to their operational responsibilities. The use of this information is one method of compliance for NOTAM disposition for airports certificated under Title 14 Code of Federal Regulations Part 139, *Certification of Airports (Part 139),* and federally obligated airports. The Federal NOTAM system is the primary means of conveying airport condition information by certificated and federally obligated airports. As of October 1, 2016, the Federal NOTAM system incorporated the new reporting criteria and methodology on surface condition reporting.

4 **Principal Changes.**

This AC incorporates new information on NOTAM terminology and technology, extensive text and format changes, and new tables, as described below:

1. Adds a new percentage coverage table for contaminant coverage
2. Incorporates language and procedures associated with Takeoff and Landing Performance Assessment (TALPA)
3. Adds a new Appendix B, Runway Condition Assessment Matrix (RCAM), and some basic information on its use
4. Adds a new Appendix C, Friction Measuring Equipment Abbreviations
5. Adds new Field Condition (FICON) NOTAM information on obtaining Runway Condition codes (RwyCC)
6. Adds new information on downgrading and upgrading a RwyCC
7. Adds information on how to use the term Slippery When Wet and what RwyCCs are associated with its use
8. Adds multiple examples of NOTAM sentences and translations for various types of contaminants
9. Identifies the six new pilot reported braking actions: Good, Good to Medium, Medium, Medium to Poor, Poor, and Nil
10. Replaces the terms “thin” and “patchy” with “measurable depth” and “percentage coverage”

5 **Background.**

The Federal Aviation Administration (FAA) is migrating from the United States Notices to Airmen System (USNS) to the Federal NOTAM System (FNS), helping to modernize the NOTAM System and completing the transition from an analog system to a digital system for originating and tracking NOTAMs. The new system comprises a suite of digital software products designed by the FAA. As part of the suite, the FAA developed a web-based application called the Digital NOTAM Manager (NOTAM Manager). This advancement in NOTAM delivery capabilities will make NOTAM submission faster; create content that is easier to read, filter, and search; and allow users to receive NOTAMs on multiple data devices. This shift will enable the FAA to organize the different elements of aeronautical information into separate data fields. This AC provides some basic concepts and examples of how NOTAMs will be standardized in NOTAM Manager, thus giving airport operators more control in the submission process.

6 **Related Code of Federal Regulations (CFRs).**

The related CFRs are 14 CFR Part 139, *Certification of Airports,* Part 152, *Airport Aid Program,* and Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports.*

7 **Related Reference Materials.**

The following are FAA regulations and publications (see current versions) used during the preparation of this AC. They will continue to be the authoritative sources of revisions to this AC. These references also contain additional resource materials that may be useful in special situations, but their immediate availability to airport operators is not considered necessary to accomplish the basic operational purpose of this AC. Electronic versions of these documents are available online.

1. Electronic CFRs are available at www.ecfr.gov.
   a. 14 CFR Part 139, *Certification of Airports*
   b. 14 CFR Part 152, *Airport Aid Program*
   c. 14 CFR Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*
   d. 47 CFR Part 17, *Construction, Marking, and Lighting of Antenna Structures.*
   e. 49 CFR Part 1542, *Airport Security*
   f. 49 CFR Part 1544, *Aircraft Operator Security: Air Carriers and Commercial Operators*
   g. 14 CFR Part 161, *Notice and Approval of Airport Noise and Access Restrictions*
2. Air Traffic publications are available at www.faa.gov/air_traffic/publications/.
   a. FAA Order JO 7110.10, *Flight Services*
   b. FAA Order JO 7110.65, *Air Traffic Control*
   c. FAA Order JO 7210.3, *Facility Operation and Administration*
   d. FAA Order JO 7340.2, *Contractions*
   e. FAA Order JO 7350.9, *Location Identifiers*
   f. FAA Order JO 7930.2, *Notices to Airmen (NOTAMs)*
3. Aeronautical Information Manual (AIM).
4. Pilot/Controller Glossary (P/CG).
5. Airport ACs (150 series) are available at www.faa.gov/airports/resources/advisory_circulars/.
   a. AC 150/5200-30, *Airport Field Condition Assessments and Winter Operations Safety*
   b. AC 150/5200-13, *Airport Design*
   c. AC 150/5370-2, *Operational Safety on Airports during Construction*
6. Other FAA ACs are available at www.faa.gov/regulations_policies/advisory_circulars/.
   a. AC 70/7460-1, *Obstruction Lighting and Marking*
   b. AC 91-79, *Runway Overrun Prevention*

c. AC 120-57, *Surface Movement Guidance and Control System*

d. AC 121.195-1, *Operational Landing Distances for Wet Runways; Transport Category Airplanes.*

7. Other FAA Orders and Notices are available at http://www.faa.gov/regulations_policies/orders_notices/.

   a. FAA Order 8900.1, *Flight Standards Information Management System*

   b. FAA Order 5190.6, *Airport Compliance Manual*

8. The Chart Supplement is available at http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/.

9. Notice to Airmen Publication (NTAP) is available at http://www.faa.gov/air_traffic/publications/notices/.

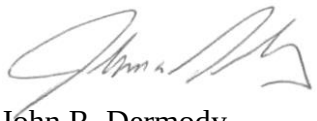
10. Notice to Airmen Search is available at http://notams.aim.faa.gov/notamSearch/.

11. Airport Improvement Program Grant Assurances are available at http://www.faa.gov/airports/aip/grant_assurances/.

8 **Questions and Comments.**

Use the Advisory Circular Feedback form at this end of this AC to send comments or suggestions for improving this AC. If you have questions about this AC, contact:

Federal Aviation Administration
Office of Airport Safety and Standards, AAS-300
800 Independence Avenue, SW
Washington, DC 20591
Telephone (202) 267-8731



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CHAPTER 1. BACKGROUND AND RESPONSIBILITIES

1.1 Use of this AC.

The Federal NOTAM System (FNS) as discussed in this AC is tailored to airport condition and facility reporting needs. Additionally, it introduces and describes the preferred NOTAM system, in this case NOTAM Manager, airport operators should use. See paragraph 1.6.1.7 for information on NOTAM Manager. Moreover, this AC advocates for the continual update of NOTAM technology and the use and acceptance of this technology by airport operators.

1.2 Function of the NOTAM System.

The FNS provides essential information to all airport users concerned with flight and airport operations. Using the FNS satisfies the requirements of Part 139 Section 339. The essential information functions associated with NOTAMs are:

1. Providing timely information on unanticipated or temporary changes to components of, or hazards in, the National Airspace System (NAS). Component changes may pertain to infrastructure, facilities, services, procedures, or hazards in the NAS.
2. Providing information that becomes available too late to publicize in the associated aeronautical charts and related publications.

1.3 NOTAM Disclaimer.

NOTAMs should not be used to impose restrictions on airport access for the purpose of controlling or managing noise or to advertise data already published or charted.[1]

1.4 Extended Period NOTAMs.

The airport operator should work to get extended period NOTAMs published instead of permitting them to remain in the NOTAM system.

1.5 Airport Records and Controls.

1.5.1 Airports certificated under 14 CFR Part 139 and federally obligated airports have requirements for maintaining records. As part of this requirement, airport operators must maintain a log of NOTAMs they originate, modify, or cancel, so they are aware of how the airport is represented to the aviation public at all times.

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[1] After October 1, 1990, noise restrictions for airports are typically cleared through the FAA's notice and review process, as required by the Airport Noise and Capacity Act of 1990. The process for compliance with this law is set forth in 14 CFR Part 161, *Notice and Approval of Airport Noise and Access Restrictions.* Contact the local Airports District Office for guidance on complying with 14 CFR Part 161.

1.5.2 Airports may use NOTAM Manager to create an electronic archive of the system confirmation emails they receive when issuing, modifying, or cancelling a NOTAM. NOTAM Manager (or ENII) should serve as the primary record (with a log book as a backup) of NOTAM forms (electronic or paper) used by the airport operator.

1.5.3 A sample NOTAM log is provided in Appendix A. Airport operators can use this sample form as a template to ensure basic NOTAM information is captured, distributed, and archived, including air carrier notification. Airport operators can modify the form to meet unique requirements at their facilities.

1.5.4 The NOTAM status of an airport should be checked and recorded daily, or more often if necessary, especially during inclement weather conditions.

1.6 **Responsibilities.**

1.6.1 Airport Operators.

Airport operators have the following responsibilities under the FNS:

1.6.1.1 Making known, as soon as practicable, any condition, existing or anticipated, within 5 miles from the Airport Reference Point that will prevent, restrict, or present a hazard during the arrival or departure of aircraft. Local coordination with airport users such as air carriers and other commercial operations should be conducted as far in advance as possible to minimize the impact of construction projects, planned surface closures, or other conditions affecting operations on the airport.

1.6.1.2 Coordinating the issuance/cancellation of NOTAMs with the Air Traffic facility responsible for providing clearance to aircraft at the airport. This applies to both towered and non-towered airports and the coordination may include an enroute air traffic control facility (ARTCC), terminal radar approach control (TRACON) facility, or the airport traffic control tower (ATCT).

1.6.1.3 Observing and reporting the condition of airport services, facilities, movement areas, parking areas, loading ramps, and holding bays. Specific airport operator management responsibilities are outlined in 14 CFR Part 139, *Certification of Airports*; 14 CFR Part 152, *Airport Aid Program;* and 14 CFR Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports.*

1.6.1.4 Ensuring notifications are made no more than 3 days before an expected condition will occur. Public notification is accomplished through the NOTAM system. This same notification system should be used when the condition has been corrected or otherwise changed. Airport operators are also responsible for ensuring NOTAMs are current and cancelled when the conditions that prompted the NOTAMs no longer exist.

1.6.1.5 Acknowledging responsibility for facility components such as pavements, runway lights, and airport guidance sign systems. Other components, such as navigation facilities and approach lights, are usually the responsibility of the FAA. To avoid confusion, airport operators must initiate a NOTAM on a facility when its operation and maintenance are clearly within their area of responsibility. However, airport operators will make every effort to alert the responsible party when outages/discrepancies are observed for facilities that fall outside their area of responsibility.

1.6.1.6 Being aware, along with pilots, of Temporary Flight Restrictions (TFR) that may affect airport operations. TFR information is available at http://www.faa.gov/pilots/ or by calling any Flight Service Station (FSS) for a pilot briefing.

1.6.1.7 Keeping informed of NOTAM technology as advancements in NOTAM delivery capabilities change due to ongoing FAA modernizing efforts. Currently, the FAA web-based Digital NOTAM Manager (NOTAM Manager) is gradually replacing ENII, and is the preferred system for initiating NOTAMs. For information on obtaining NOTAM Manager or to access the FAA's NOTAM Manager Self-Cert program, please go to https://notams.aim.faa.gov/ and select "Applications".

Note: Whenever NOTAM modernization occurs, the FAA usually establishes a grace period during which the previous legacy system is phased out.

1.6.1.8 Keeping training programs up-to-date and maintained. As changes occur, airport staff must be trained on new processes and procedures, and training material must be updated.

1.6.1.9 Using FAA Order JO 7930.2 as it relates to specific NOTAM information application.

1.6.1.10 Using the optional NOTAM Log (electronic or paper) in Appendix A or the NOTAM Manager system as a primary or backup method for originating, modifying, cancelling, tracking, and receiving acknowledgement of air carrier notification of NOTAM activity.

1.6.1.11 Inputting PIREP information into NOTAM Manager or E-NOTAMII, when received from aircraft operators or the air traffic control tower, in order to assist in comparing PIREPs and airport operator condition assessments. See paragraph 3.12.2 for application.

1.6.1.12 Providing an up-to-date list of airport employees who are authorized to issue NOTAMs to the Flight Service Station (FSS) air traffic manager.

1.6.2 **Flight Services.**

System Operations Services, Flight Services, is responsible for ensuring that data submitted for NOTAM origination complies with the policies, criteria, and formats contained in this Advisory Circular and JO Order 7930.2, *Notices to Airmen (NOTAMs).* This responsibility is delegated to the Safety and Operations Policy Group.

1.6.3 **U.S. NOTAM Office (USNOF).**

The USNOF executes the operational compliance function. When USNOF operational personnel determine that submitted NOTAM information does not comply with the criteria or procedures as prescribed, they must call this to the attention of the transmitting party. USNOF will forward unresolved issues to Flight Service Program Operations for clarification and further action. The USNOF is responsible for operating the NOTAM system. USNOF originates NOTAMs, as needed.

1.7 **Compliance.**

1.7.1 Certificated Airports.

The Office of Airport Safety and Standards is responsible for enforcing the airport operator responsibilities as outlined in 14 CFR Part 139.

1.7.2 Federally Obligated Airports.

The Office of Airport Compliance and Management Analysis is responsible for enforcing those responsibilities at all airports with federal obligations, which includes federal property transfer requirements and grant assurances. For the general compliance requirements of federally obligated airports that are not certificated under 14 CFR Part 139, see 14 CFR Part 152, Appendix D, and the current FAA Order 5190.6, *Airport Compliance Manual.* A fundamental obligation on the sponsor is to keep the airport open for public use. Grant Assurance 19, Operation and Maintenance, requires the sponsor to protect the public using the airport by adopting and enforcing rules, regulations, ordinances, or policies as necessary to ensure safe and efficient flight operations. This obligation includes the following:

1.7.2.1 **Field Lighting.**

If field lighting is installed, the sponsor must ensure the field lighting and associated airport beacon and lighted wind and landing direction indicators are operated every night of the year or when needed. (See paragraph 7.12, Part-time Operation of Airport Lighting, in FAA Order 5190.6.) Properly maintaining marking, lighting, and signs can reduce the potential for pilot confusion and prevent a pilot deviation or runway incursion.

1.7.2.2 **Warnings.**

If any part of the airport is closed, or if the use of any part of the airport is hazardous, the sponsor must provide warnings to users, such as adequate markings and issuing NOTAMs.

1.7.2.3 **Safe Operations.**

The sponsor should adopt and enforce adequate rules, regulations, ordinances, or policies as necessary to ensure the safety and efficiency of aircraft operations and to protect the public using the airport. When a proposed action directly impacts the flight of an aircraft, that action should be coordinated with FAA Flight Standards and/or Air Traffic Control.

1.8 Dissemination of NOTAMs.

1.8.1 Determining NOTAM Distribution.

The USNOF is charged with monitoring the FNS for compliance with the criteria and procedures set forth in policy. When questions arise about NOTAM dissemination, formats, contractions, or other aspects of the distribution system, consult the USNOF.

1.8.2 Domestic NOTAMs.

NOTAM (D) information is distributed for all public use airports, seaplane bases, and heliports listed in the Chart supplement U.S. and all navigational facilities that are part of the NAS. The NOTAM (D) criteria of FAA Order JO 7930.2 requires wide dissemination of NOTAM (D) information via telecommunication and pertains to enroute navigational aids, facilities, services, and procedures as listed in the Chart supplement U.S.

CHAPTER 2. NOTAM PROCESS

2.1 Authority to Initiate a NOTAM.

2.1.1 Airport operators are responsible for observing and reporting the condition of airport facilities when temporary changes or outages could impact the NAS. Airport operators are also responsible for initiating NOTAMs to report runway condition assessments and FICON. FICONs are used to report surface conditions and braking action on runways, taxiways, and aprons/holding bays. The Runway Condition Assessment Matrix (RCAM) is the assessment tool airport operators will use to identify and report runway surface conditions into the FNS. See Appendix B.

2.1.2 All airport operators are responsible for providing an up-to-date list of airport employees who are authorized to issue NOTAMs to the FSS air traffic manager. At public airports without an airport manager, the FSS air traffic manager will coordinate with the appropriate airport operating authority to obtain a list of persons delegated to provide NOTAM information. Using authorized airport personnel will help expedite NOTAM processing because information obtained from unauthorized personnel will have to be confirmed and authenticated by the FSS before a NOTAM will be issued.

2.1.3 Authorized airport personnel who do not have access to NOTAM Manager, ENII, or applicable FNS technology can submit information for NOTAMs to FSS.

2.1.4 The airport operator should execute and maintain a Letter of Agreement (LOA), which is required before using NOTAM Manager, between the airport operator and the FAA outlining procedures used for originating NOTAMs. The Aeronautical Services Group (AJM-336) will provide the LOA template to the parties involved.

2.2 NOTAM Criteria.

Personnel issuing NOTAMs must use the official ICAO contractions and abbreviations specified in FAA Order 7340.2 and the allowed exceptions found in FAA Order JO 7930.2, *Notices to Airmen (NOTAM),*[2] when composing NOTAMs. Plain language text is required when there is not an approved ICAO contraction.

2.2.1 Criteria for Publishing Airport NOTAMs.

NOTAMs address the following conditions or categories of information:

1. *Surface areas.* Changes in hours of operations and hazards such as pavement issues, wildlife conditions, surface conditions, airport construction, airport infrastructure deficiencies, airspace obstruction, and other hazardous conditions.

[2] FAA Order JO 7930.2 is the authority for contractions used in this AC. Any contraction changes in FAA Order JO 7930.2 supersede the contractions used in this AC.

2. *Public airports.* Commissioning, decommissioning, openings, closings, and abandonments.

3. *Aircraft rescue and fire fighting (ARFF) capability.* Restrictions to air carrier operations.

4. *Changes to runway identifiers, dimensions, declared distances, threshold placements, and surface compositions.*

5. *NAS lighting systems.* Commissioning, decommissioning, outages, changes in classification or operation as defined in AC 150/5340-30, *Design and Installation Details for Visual Aids.*

References: Aeronautical Information Manual (AIM)
FAA Order JO 7930.2, *Notices to Airmen (NOTAMs)*
AC 120-57, *Surface Movement Guidance and Control System*

2.3 NOTAM Composition.

The possible elements of a NOTAM sentence, in order of appearance, are: Keyword; Attribute; Surface Segment; Facility or Service; Location; Lower Limit; Upper Limit; Condition; Reason, Remarks; Schedule; Start of Activity; and End of Validity. The elements Keyword, Attribute, Condition, Start of Activity, and End of Validity are mandatory elements. Surface Segment, Facility or Service, Location, Lower Limit, Upper Limit, Reason, Remarks, and Schedule are included as needed. Not all NOTAMs will contain all elements.

2.3.1 Exclamation Point (!).

System-generated character that indicates the beginning of a NOTAM sentence.

Example: !

2.3.2 Accountability.

Affixed by the NOTAM system (the identifier of the accountability location; for example, JFK, FDC,).

Example: ! JFK

2.3.3 Location Identifier.

Location identifier for the facility the NOTAM will affect [the affected facility or location (airport, NAVAID, or ARTCC) appears after the NOTAM number]. Approach controls or airspace located within multiple ARTCC must have a separate NOTAM for each ARTCC.

Example: ! JFK JFK

2.3.4 Keyword.

See Table 2-1 for keywords and definitions.

Example: ! JFK JFK RWY

2.3.5 Attribute, Activity, or Surface Designator(s) (when needed).

A surface designator is required with keywords RWY, TWY, and APRON. Enter surface identification for runway-related NOTAMs, the taxiway identification for taxiway-related NOTAMs, or the apron identification for apron-related NOTAMs.

Note: If a facility component has not been given a specific identifying designation, such as an unnumbered or unlettered parking apron, associate it with a component that does have a positive identification.

Example: !JFK JFK RWY 04L/22R

Example: !JFK JFK TWY A, A1

Example: !JFK JFK APRON PARKING APN ADJ TWY A

2.3.6 Surface Segment (when needed).

Example: !JFK JFK TWY B BTN TWY C AND TWY D
Facility, feature, service, system, and/or components thereof (when needed).
Location description (when needed).

2.3.7 Lower Limit then Upper Limit or Height (when needed).

Specify the limits as follows:

1. For Surface (SFC), use 1 to17,999 with the unit of measurement (AGL or MSL). For example, 50FT 1275FT AGL, 10500FT.
2. For 18,000 feet and above, express in in flight levels (FL). For example, FL180, FL550, or UNL (altitudes greater than 99,900 feet).
3. Heights AGL may be added when required or when MSL is not known. For example, SFC-450FT AGL.

2.3.8 Condition.

Identify the changed condition or status being reported, when needed. When the conditions includes a limitation or an exception, follow the condition with "TO" or "EXC". For example, "CLSD EXC SKI" or "CLSD TO TRANSIENT" OR "CLSD EXC TAX BTN APCH END RWY 10 AND TWY C".

Example: !JFK JFK RWY 12/30 CLSD

Example: !JFK JFK TWY A, A1 EDGE LGT Out of Service

2.3.9 Reason (when needed).

2.3.10 Remarks (when needed). Other information.

This identifies other information considered important to the pilot.

2.3.11 Schedule (when needed).

2.3.11.1 A NOTAM may be originated for a scheduled condition/activity that will occur during the period. Specify the schedule between the condition/activity and the valid time string using the universal coordinated time (UTC). The days of the week must be specified before the scheduled time. The term "DLY" (daily) indicates the event will occur each day at the same time during the stated time period. The start time of the schedule must correspond to the start of activity time. The end of the last schedule must correspond to the end of validity time. For example: DLY 1200-2000 YYMMDD1200-YYMMDD2000; MON WED 0900-1300 YYMMDD0900-YYMMDD1300, TUE THU 0900-2000 YYMMDD0900-YYMMDD2000.

2.3.11.2 If the active time of a NOTAM corresponds to sunrise or sunset, the actual times of sunrise on the first day of validity and of sunset on the last day of validity must be used.

Example: ! JFK JFK RWY 12/30 CLSD DLY 1400-0100

Example: ! JFK JFK RWY 12/30 CLSD MON WED FRI 1730-2130

Example: ! JFK JFK RWY 12/30 CLSD MON-FRI 0900-2359

2.3.12 Start of Activity/End of Validity.

2.3.12.1 This is a 10-digit date-time group (YYMMDDHHMM) used to indicate the time at which the NOTAM comes into force (the date/time a condition will exist or begin) and the time at which the NOTAM ceases to be in force and becomes invalid (the expected return to service, return to normal status time, or the time the activity will end). These times must be separated by a hyphen "-"

Example: ! JFK JFK RWY 12/30 CLSD 1710122330-1710131300

2.3.12.2 When the NOTAM duration is certain, it should be reflected with a self-cancelling expiration time.

Example: ! JFK JFK RWY 12/30 CLSD 1710122330-1710131300

2.3.12.3 When the NOTAM duration is citing a condition that is expected to return to service at an estimated period of time, it should reflect the estimated nature of the time with the suffix "EST".

Note: Any NOTAM that includes an "EST" must be canceled or replaced before the NOTAM reaches its End of Validity time. If the NOTAM is not canceled or replaced, it will expire at the end of validity time regardless of EST.

Example: !JFK JFK RWY 12/30 CLSD 1710122330-1710131300EST

2.3.12.4 When a NOTAM advertises a permanent condition that will be published in text, chart, or database, insert "PERM" as the expiration date in lieu of a 10-digit date-time group. The NOTAM originator is responsible for canceling the NOTAM and ensuring the NOTAM data gets published in the appropriate publication.

Example: !JFK JFK RWY 12/30 CLSD 1710122330-PERM

2.3.12.5 NOTAMs will auto-expire at the end of validity unless PERM is indicated.

2.3.13 When the condition of a number of facilities, NAVAIDs, services, or landing areas/runways are related to the same event (for example, date/time, facility closing, part-timing, runway closures, etc.), issue separate NOTAMs for each facility.

2.3.14 A complete report that includes all changes or alterations, unless reference is made to other restrictions already published, is required for each NOTAM concerning a specific aid, service, or hazard.

2.3.15 If information is published elsewhere and is still valid, make references to that publication with the statement, "PLUS SEE (publication)." A NOTAM issued not stating "PLUS SEE (publication)" indicates the NOTAM replaces previously published similar data.

Table 2-1. NOTAM Keywords / Definitions

Keyword	Definition
AD **(Aerodrome)**	Used to describe a temporary change or hazard or potential hazard on or within 5 statute miles of an airport, heliport, or maneuvering area that is not associated with a specific movement area surface. Such hazards may include aerodrome closures, lighting not associated with a specific movement area surface, aerodrome services (fuel, customs, ARFF), helicopter platforms, wildlife hazards, and meteorological equipment (wind indicators) or services. **Note:** When using AD, ensure it is accompanied by the acronym for Airport (AP) if a complete aerodrome closure is implied.
APRON	Used to describe a temporary change or hazard associated with an apron, ramp or taxi lane, lighting, markings, helipad, signage and other attributes associated with a specific apron.
COM **(Communications)**	Used to describe a temporary change or hazard caused by communication outlet commissioning, decommissioning, outage, unavailability, and air-to-ground frequencies. **Note:** Airport operators may not have rights to submit NOTAMs using this keyword.
NAV **(Navigation Aids)**	Used to describe a temporary change or hazard caused by changes in the status of ground-based radio navigational aids and Global Navigation Satellite Systems (GNSS) (except for area navigation (RNAV) approach anomalies). **Note:** Airport operators may not have rights to submit NOTAMs using this keyword.
OBST **(Obstructions, including obstruction lighting outages)**	Used to describe a temporary change or hazard caused by a moored balloon, kite, tower, crane, stack, obstruction, obstruction lighting outage, obstruction status, or telecommunication tower light outage.
RWY (Runway)	Used to describe a temporary change or hazard associated with landing and takeoff surfaces to include runway lighting, signage, and other airport services or attributes associated with a specific runway. Identify runways with the prefix RWY followed by the magnetic bearing indicator, e.g., RWY 12/30, RWY 12, or RWY 30.
TWY (Taxiway)	Used to describe a temporary change or hazard associated with a taxiway, taxiway lighting, markings, helipads, signage, and other attributes associated with a specific taxiway. Applies to single or multiple taxiways. Identify taxiways with the prefix TWY followed by the taxiway identifier letter or letter/number as assigned, e.g., TWY C, B3 CLSD, TWY PARL TWY ADJ RWY 09/27 CLSD.
SVC **(Services)**	Used to describe a temporary change or hazard associated with change in service levels, such as operating hours, air traffic management services, or airport services.

2.3.16 The NOTAM sentence structure for issuing keyword NOTAMs is: Keyword; Surface Name/Designator; Surface Segment; Geographical Location/Description; Feature, Service, Facility or System; Descriptive comments about Feature, Facility, Service or System; Condition, Limitation; Exceptions/PPR; and Other Comments. The elements Keyword, Surface Name/Designator, Condition, Start of Activity and End of Validity are mandatory. All other elements are included as needed. Examples for various categories are indicated below. The paragraphs below provide some examples and plain text translations illustrating the structure of certain keyword NOTAMs. Not all NOTAMs will contain all of the elements.

2.3.17 Runway.

…RWY 09/27 CLSD TO ACFT MORE THAN 12500LB 1709131300-1709132000

Translation: Runways 09 and 27 are closed to all aircraft weighing more than 12,500 pounds during the time period specified.

…RWY 13/31 CHANGED TO RWY 14/32 1708151200-PERM

Translation: Runway designation 13/31 now permanently changed to 14/32.

…RWY 16/34 CLSD TO ACFT WINGSPAN MORE THAN 70FT AND TO ACFT TAIL HEIGHT MORE THAN 49FT 1709131300−1709132000

Translation: Runways 16 and 34 are closed to aircraft with a wingspan more than 70 feet and is also closed to aircraft with tail height more than 49 feet during the specified time period.

2.3.18 Taxiway.

…TWY A3, A4, A5 EDGE LGT Out of Service 1709041800-1709062200

Translation: Taxiway(s) A3, A4, and A5 taxiway edge lights are out of service during the specified time period.

…TWY ALL CLSD 1709041800-1709062200

Translation: All taxiway(s) are closed during the time period specified.

…TWY A WIP ELECTRICAL LINE TRENCHING 1709070800-1709101400

Translation: Taxiway A has work in progress for electrical line trenching for a specific time period.

2.3.19 Aprons/Holding Bay.

… APN NORTH APN E 50FT CLSD 1711122150-1712220700

Translation: North apron on the east 50 feet is closed during the specified time period.

…APN SOUTH CARGO APN CLSD 1709131300-1709141300EST

Translation: South cargo apron is closed during the specified time period with an estimated return to service time.

2.3.20 Aerodrome.

…AD AP CLSD 1710122330-PERM

Translation: Airport is now permanently closed.

…AD AP CLSD EXC 2HR PPR MON-FRI 1710131000-1710311200

Translation: Airport closed except for two hour prior permission required for days of week and timeframe given.

2.3.21 Services.

…SVC ATIS NOT AVBL 1711041600-1711041800

Translation: ATIS is not available for an established time period.

…SVC TWR CLSD 1709092100-1709092300

Translation: Airport tower is closed for an established time period.

2.4 NOTAM Submission.

Airport operators should use NOTAM Manager as the preferred and most effective method for entering NOTAMs into the system. NOTAM Manager uses dropdown menus, which standardizes entry and improves consistency. It also reduces or eliminates time-consuming free form NOTAMs that need human intervention and interpretation before issuing.

2.4.1 Connecting to NOTAM Manager.

2.4.1.1 Contact the National Airspace System Integration Support Contract (NISC) NOTAM Manager (NM) Deployment Team at 816-329-2550.

2.4.1.2 Register online at https://notams.aim.faa.gov/scert and a member of the NISC NM Deployment Team will contact you once your registration is received.

2.4.2 Using Other Methods to Issue NOTAMs.

2.4.2.1 Contact the appropriate Air Traffic facility for your airport if you encounter difficulty in contacting the FSS identified in the Chart supplement.

2.4.2.2 FSS facility managers are required to ensure that lists of airport employees authorized to issue NOTAMs are available and kept current. To avoid delays in NOTAM dissemination, you must keep your airport's list of authorized personnel up-to-date as changes occur, but not less than once annually.

2.5 **Verification Information.**

2.5.1 When issuing a NOTAM via a method other than NOTAM Manager, provide the name, position, title (if appropriate), address, and telephone number of a responsible airport official who the FSS should contact if confirmation of the NOTAM information is required. If you call in your NOTAM, you should ask for the operating initials of the FSS specialist who receives your call and the number assigned to the NOTAM. Allow sufficient time for the FSS specialist to format and input the NOTAM into the NOTAM system. Call the FSS back to get the current NOTAM and NOTAM number. Each specialist is officially identified in the facility by operating initials. Knowing the initials and NOTAM number will make follow-up or other reference easier.

2.5.2 Airport personnel can review their NOTAMs on the FAA website at http://www.notams.aim.faa.gov/notamSearch/.

2.6 **NOTAM Management.**

Airport operators are responsible for updating or canceling NOTAMs that are no longer applicable to airport facilities or field conditions.

CHAPTER 3. AIRPORT CONDITION NOTAMS AND REPORTING PROCESS

3.1 Reporting Tools.

3.1.1 The airport operator is responsible for using all available methods, tools, and procedures to ensure timely and accurate information is being provided about airport conditions. The airport operators utilize the FNS as the primary method for collection and dissemination of airport information to aircraft operators and other airport users.

3.1.2 When disseminating airport condition information there are three methods available to airport operators. The first and preferred method is NOTAM Manager, a digital, direct-entry system. The second alternative method is the ENII system. The third method to issue a NOTAM is via telephone. This method is the least preferred due to the amount of time required to communicate airfield conditions to Flight Service, and the manual recording of notifications and disseminations in airport logs.

Note: If supplemental or secondary systems are used, the airport operator must ensure they are approved and consistent with Part 139. Supplemental systems used for dissemination of NOTAM information are not recommended due to the potential to advertise outdated information which may be in conflict with current NOTAMs.

3.2 Reporting Conditions.

3.2.1 Use the term “DRY” to describe a surface that is neither wet nor contaminated. Do not originate a FICON NOTAM for the sole purpose of reporting a dry runway. A dry surface is reported when there is need to report conditions on the remainder of the surface.

3.2.2 Use the term “WET” to describe a surface that is neither dry nor contaminated but has visible dampness, moisture, and/or water 1/8 inch (3mm) depth or less. Wet can also be reported as a stand-alone contaminant and in conjunction with other contaminants.

3.2.3 Use the word “REMAINDER” to provide additional information about the surface condition. For example, the runway surface conditions vary significantly according to the width, on one third of the runway, or a runway has been treated, resulting in differing field conditions on the untreated parts of the surface.

3.2.4 When assessing runway conditions, the airport operator should be aware that information reported will need to be divided into thirds, which represent the Touchdown, Midpoint, and Rollout portions of the runway. The conditions are reported based on the direction of the assessment, and typically correlates with the runway end in use.

3.3 **Reportable Contaminants.**

3.3.1 The listed contaminants are those recognized and used for reporting purposes. The application and order of precedence is illustrated on the RCAM. When reporting a runway condition, a depth is mandatory, and only included, with those contaminants marked by an asterisk (*).

- Wet (water 1/8 inch depth or less)
- Water* (greater than 1/8 inch depth)
- Frost
- Slush*
- Ice
- Wet ice
- Water* over ice
- Wet snow*
- Wet snow* over ice
- Dry snow*
- Dry snow* over ice
- Compacted snow
- Water* over compacted snow
- Wet snow* over compacted snow
- Dry snow* over compacted snow
- Slush* over Ice
- Slippery When Wet
- Mud*
- Oil
- Sand
- Ash

3.3.2 A wet contaminant can have an impact on the performance of some aircraft; therefore, the FAA highly encourages airports to report “Wet” conditions (1/8-inch depth or less of water) when it is the only condition present on the runway. Equally important, the airport operator must be aware of its responsibility to monitor conditions during periods of heavy rainfall, which may cause depths to increase to greater than1/8 inch of water (even on grooved runways). Airplane operators indicate this is critical information to report given the impact on airplane performance. Airport operators must report “Wet” conditions when associated with other winter contaminants in any particular third of the

runway. Additionally, when a runway has been treated with chemicals to mitigate a specific contaminant and the resulting surface is now "Wet", this condition should be reported. The airport also has the option to report the chemical treatment within the same NOTAM.

Table 3-1. Reportable Contaminant Definitions

Term	Definition
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 condition reporting 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. **Note:** While ash, sand, oil, and rubber (see "Slippery When Wet" definition) are reportable contaminants, there is no associated airplane performance data available and a depth would not be reported.
Ash	A grayish-white to black soft 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.
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, frost, slush, snow (any type), or ice.
Dry snow	Snow that has insufficient free water to cause it to stick together. This generally occurs at temperatures well below 32 degrees F (0 degrees C). If when making a snowball, it falls apart, the snow is considered dry.
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.
Ice	The solid form of frozen water.
Layered contaminant	A combination of the definitions for each of the contaminants. For example, the definition of "Wet Snow over Ice" is "Snow that has grains coated with liquid water, which bonds the mass together, but that has no excess water in the pore space" over "the solid form of frozen water."
Mud	Wet, sticky, soft earth material.
Oil	A viscous liquid derived from petroleum or synthetic material, especially for use as a fuel or lubricant.

Term	Definition
Rubber	A tough elastic polymeric substance made from the latex of a tropical plant or from synthetic material.
Sand	A sedimentary material, finer than a granule and coarser than silt.
Slippery when wet	A wet runway where the surface friction characteristics would indicate diminished braking action as compared to a normal wet runway.
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	Snow that has water content exceeding a freely drained condition such that it takes on fluid properties (e.g., flowing and splashing) over the solid form of frozen water.
Water	Water in a liquid state. For purposes of condition reporting and airplane performance, water is greater than 1/8 inch (3 mm) in depth.
Wet ice	Ice that is melting or ice with any depth of water on top.
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 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 (3 mm) or less in depth.
Wet snow	Snow that has grains coated with liquid water, which bonds the mass together, but that has no excess water in the pore space. A well-compacted, solid snowball can be made, but water will not squeeze out.

3.4 Reportable Depths.

Specify the estimated contaminant depth in inches and feet.

Table 3-2. Reportable Depth Measurements

Use Value	To Report
1/8IN	1/8 inch or less
1/4IN	> 1/8 inch to and including 1/4 inch
1/2IN	> 1/4 inch to and including 1/2 inch
3/4IN	> 1/2 inch to and including 3/4 inch
1IN	> 3/4 inch to and including 1 inch

3.4.1 When 1 inch is reached, report values in multiples of 1 inch and discontinue the use of fractions. When a snow depth of 35 inches is reached, report values in multiples of feet. Round depths greater than 1 inch to the next higher reportable depth.

3.4.2 Report the highest depth of the contaminant along the reported portion of the surface.

3.4.3 The runway contaminants for which depth is mandatory when reporting runway surface conditions are specified in paragraph 3.3. The contaminant depth should also be reported for taxiway and apron/ramp conditions using the same reference paragraph.

3.5 Reporting Runway Percentage.

Percent coverage (PRCT) is used to represent an *approximate* coverage on a runway. It is used in conjunction with contaminant type and depth. Percent coverage also plays a major role in the application of the RCAM and the calculation of RwyCCs. As indicated by the range of percentages, it should be noted that the reported percent value is not intended to be an exact measurement. The value reported, should be a conservative estimate.

Note: Percentages only apply to Runways, not any other surface.

Table 3-3. Reporting Runway Percentage

Percent Range	Percent Reportable
10% or less	10%
11% to 20%	20%
21% to 25%	25%
26% to 30%	30%
31% to 40%	40%
41% to 50%	50%
51% to 60%	60%
61% to 70%	70%
71% to 75%	75%
76% to 80%	80%
81% to 90%	90%
91% to 100%	100%

3.6 Runway Condition Assessment Matrix (RCAM).

Upon completing an assessment of a runway surface, the next step is determining how the RCAM applies. The threshold for determining RwyCC applicability is 25%. The airport operator must first determine whether the overall runway length and width is

contaminated greater that 25%. If the contaminant noted is greater than 25%, RwyCCs will be applicable. If 25% or less of the runway is contaminated, then a RwyCC will not be generated.

3.6.1 Using the Runway Condition Assessment Matrix (RCAM).

The RCAM is the method an airport operator uses to assess and report conditions on a runway surface 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 by which the airport operator reports and determines a Runway Condition Code "RwyCC" (when applicable). This function is automatically calculated in the FNS. Below are the basic steps for obtaining a RwyCC and some examples of how it will appear as a NOTAM. Consult AC 150/5200-30, *Airport Field Condition Assessments and Winter Operations Safety*, for current guidance for assessing and reporting airport surface conditions using the Runway Condition Assessment Matrix (RCAM).

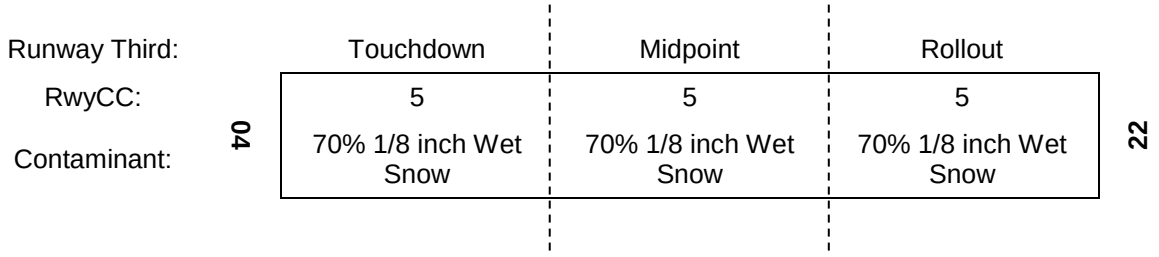
3.6.2 Determining Runway Condition Codes (RwyCC).

Upon identifying that a runway is contaminated greater than 25 percent, use the Runway Condition Assessment Matrix (Appendix B) to determine the type of contaminant present. Upon selecting the appropriate type of contaminant, assign the corresponding RwyCCs based upon the RCAM and the following criteria. Once the RwyCCs have been assigned, the airport operator may elect to downgrade the assigned RwyCCs, based upon observations and judgment. Conversely, the airport operator may also upgrade RwyCCs in limited scenarios, when specific criteria are met, as detailed below.

Note: The **bolded contaminants** in some of the Runway Third diagrams below take precedence in determining the RwyCC for that third.

3.6.2.1 **Single Contaminant Criteria.**

1. If a runway third contains a single contaminant that is *greater than 25%,* the RwyCC for that third is based directly on the code associated with that contaminant.



2. If a runway third contains a single contaminant that is *less than or equal to 25%*, the RwyCC for that third will be a RwyCC of "6". This is due to the runway condition being primarily Dry (or greater than 25%).

Runway Third:	Touchdown	Midpoint	Rollout	
RwyCC:	6	6	6	
Contaminant:	20% 1/8 inch Wet Snow	20% 1/8 inch Wet Snow	20% 1/8 inch Wet Snow	
04				**22**

3.6.2.2 **Multiple Contaminants Criteria.**

1. When two contaminants are present in a runway third and the percent coverage for at least one of the contaminants is *greater than 25%*; the RwyCC for that third shall be based on the contaminant with the lowest RCAM code that has a percent coverage *greater than 25% in that third.*

Runway Third:	Touchdown	Midpoint	Rollout	
RwyCC:	2	2	2	
Contaminant:	20% 1/8 inch Wet Snow **30% ¼ inch Slush**	20% 1/8 inch Wet Snow **30% ¼ inch Slush**	20% 1/8 inch Wet Snow **30% ¼ inch Slush**	
04				**22**
	Total Coverage 50%	Total Coverage 50%	Total Coverage 50%	

Runway Third:	Touchdown	Midpoint	Rollout	
RwyCC:	1	1	1	
Contaminant:	**30% Ice** 60% ¼ inch Slush	**30% Ice** 60% ¼ inch Slush	**30% Ice** 60% ¼ inch Slush	
04				**22**
	Total Coverage 90%	Total Coverage 90%	Total Coverage 90%	

2. When two contaminants are present in a runway third and the percent coverage for each individual contaminant is *less than or equal to 25%* (and the total coverage for that runway third is greater than 25%); the RwyCC for that third shall be based on the contaminant with the higher percentage for that third.

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:		2	2	2	
Contaminant:	04	10% Ice **20% ¼ inch Slush**	10% Ice **20% ¼ inch Slush**	10% Ice **20% ¼ inch Slush**	22
		Total Coverage 30%	Total Coverage 30%	Total Coverage 30%	

3. When two contaminants are present in a runway third and the percent coverage for each individual contaminant is *equal* and the total coverage for that runway third is *greater than 25%*, the RwyCC for that third shall be based on the contaminant with the lowest RCAM value (if the RCAM values are not equal).

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:		1	1	1	
Contaminant:	04	**20% Ice** 20% ¼ inch Slush	**20% Ice** 20% ¼ inch Slush	**20% Ice** 20% ¼ inch Slush	22
		Total Coverage 40%	Total Coverage 40%	Total Coverage 40%	

4. When two contaminants are present in a runway third and the total percent coverage for that runway third is less than or equal to 25%, the RwyCC for that third shall be a RwyCC of "6". This is due to the runway condition being primarily Dry (or greater than 25%).

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:		6	6	6	
Contaminant:	04	10% Ice 10% ¼ inch Slush	10% Ice 10% ¼ inch Slush	10% Ice 10% ¼ inch Slush	22
		Total Coverage 20%	Total Coverage 20%	Total Coverage 20%	

3.6.3 Downgrade of RwyCC.

The airport operator may downgrade a RwyCC when Continuous Friction Measuring Devices (CFME)/deceleration devices, pilot reports, or other observations suggest conditions are worse than indicated by the contaminant present. The airport operator should exercise good judgment and, if warranted, report a lower RwyCC than the contamination type and depth would indicate when generating an initial RwyCC. The NOTAM system has prompts and built-in protocols that must be addressed before completing a downgrade action.

3.6.4 Upgrade of RwyCC.

Generally, the FAA does not recommend that the airport operator upgrade a RwyCC from what is defined by the RCAM. Given the friction variability of certain contaminants, there are circumstances when a RwyCC of "0" or "1" (Ice, Wet Ice, Slush over Ice, Water over Compacted Snow, or Dry/Wet Snow over Ice) may not be as slippery as the RwyCC generated by the RCAM. In these very specific circumstances, the airport operator may upgrade the RwyCC to no higher than a RwyCC of "3". The NOTAM system has prompts and built-in protocols that must be satisfied before completing an upgrade action. Specific information for both the downgrade and upgrade instructions can be found in Advisory Circular 150/5200-30, *Airport Field Condition Assessments and Winter Operations Safety.*

Note: When contaminants which are not listed in RCAM are reported individually, or combined with contaminants listed in the RCAM, a RwyCC should not be generated. This function is automatic within the NOTAM System. Additionally, this criteria shall not be used for Nil pilot reported braking action reports.

3.7 **Examples of System Capabilities Associated Field Condition NOTAMs.**

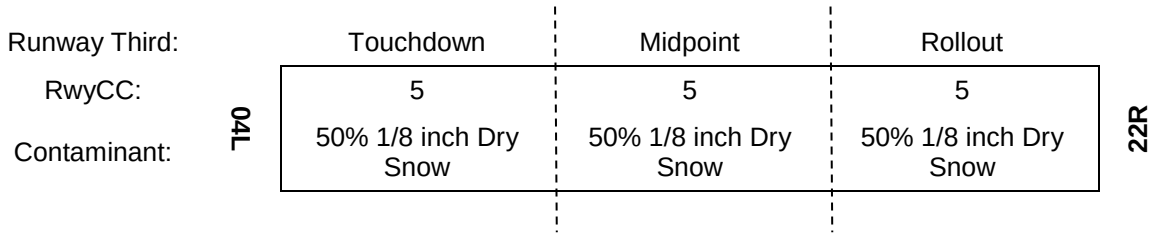
The FICON NOTAM sentence structure (Keyword; Surface Name/Designator; Surface Segment; "FICON"; RwyCC; PRCT; Condition/Contaminant; Action; Width of Treatment/s; Additional Surface Information; "Observed At (time)"; and Other Comments) should be used for issuing information on field conditions. Not all NOTAMs will contain all of the elements. The elements Keyword; Surface Name/Designator; "FICON"; Condition/Contaminant; and "Observed At (time)" are mandatory; all other elements are used as needed. In the examples of a FICON NOTAM shown below, the first example includes all elements for a particular surface. Subsequent examples for that surface begin with a keyword and end prior to the scheduled time, unless including that information is helpful for clarity. Any translation will follow the same guideline. The following examples illustrate the systems capability to report varying complexities associated with runway conditions.

3.7.1 Uniform Coverage for All Runway Thirds.

!ORD ORD RWY 04L FICON 5/5/5 50 PRCT 1/8 IN DRY SN OBSERVED AT 1704251620 1704251625-1704261625

Translation: Chicago O'Hare airport assessment using the RCAM produced a RwyCC of 5/5/5 with uniform contaminant coverage of 50% 1/8 inch dry

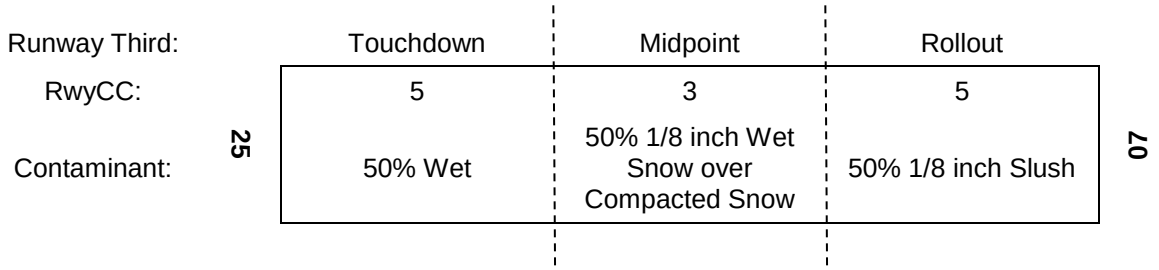
snow on all thirds of the runway. Since there is uniform coverage for all runway thirds the NOTAM will illustrate just the 50% coverage, depth, and type to show uniform coverage and the valid times.



3.7.2 A Single But Different Contaminant Exists In Each Runway Third.

!DEN DEN RWY 25 FICON 5/3/5 50 PRCT WET, 50 PRCT 1/8 IN WET SN OVER COMPACTED SN, 50 PRCT 1/8 IN SLUSH OBSERVED AT 1704251655 1704251700- 1704261700

Translation: Denver airport assessment using the RCAM produced a FICON of 5/3/5 with contaminants consisting of 50% Wet, 50% 1/8in Wet Snow over Compacted Snow, and 50% 1/8in Slush. The overall coverage is more than 25% of the entire length and width so a RwyCC was generated for each third based on contaminant types and depths. With the addition of valid times, this becomes the NOTAM sentence.



3.7.3 Two Different Contaminants in Each Runway Third.

!SLC SLC RWY 34L FICON 3/5/2 50 PRCT WET AND 50 PRCT 1/8 IN WET SN OVER COMPACTED SN, 50 PRCT WET AND 25 PRCT 1/8 IN WET SN OVER COMPACTED SN, 10 PRCT ¼ IN SLUSH OVER ICE AND 75 PRCT ¼ IN SLUSH OBSERVED AT 1703251855 1703251900-1703261900

Translation: Salt Lake City airport assessment using the RCAM produced a FICON of 3/5/2 with contaminants consisting of 50% Wet and 50% 1/8in Wet Snow over compacted Snow, 50% Wet and 25% 1/8in Wet Snow over compacted SN, 10% ¼ in Slush over Ice and 75% ¼ Slush. The overall coverage is more than 25% of the entire length and width so a RwyCC was

generated for each third based on contaminant type and depth. With the addition of valid times, this becomes the NOTAM sentence.

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:		3	5	2	
Contaminant:	34L	50% Wet **50% 1/8 inch Wet Snow over Compacted Snow**	**50% Wet** 25% 1/8 inch Wet Snow over Compacted Snow	10% 1/4 inch Slush over Ice **75% ¼ inch Slush**	16R
		Total Coverage 100%	Total Coverage 75%	Total Coverage 85%	

3.7.4 Runway FICON.

!LGA LGA RWY 13 FICON 3/3/3 100 PRCT COMPACTED SNOW OBSERVED AT 1701040230. CONDITIONS NOT MNT 1701040300-1701061045. 1701040253-1701061115

Translation: LaGuardia airport Runway 13 is the landing runway and has a Runway Condition Code of "3" in all thirds, and is 100% covered by compacted snow. The temperature is warmer than 5°F (-15°C). The field conditions are not monitored from January 4, 2017 0300UTC through January 6, 2017 1045UTC. The airport operator expects to have a new NOTAM submitted by January 6, 2017 1115UTC.

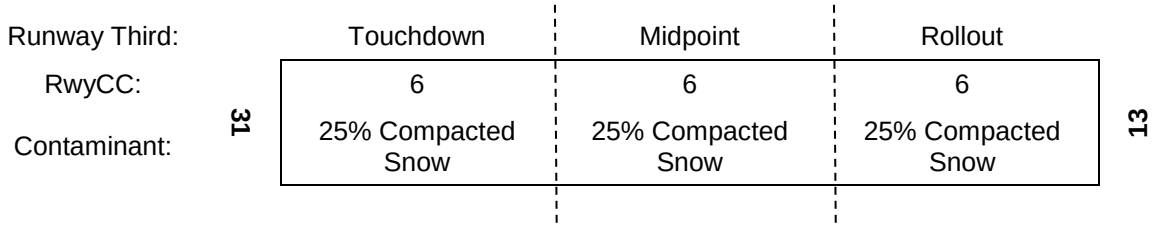
Note 1: All FICON NOTAMs have "OBSERVED AT" and effective/expiration times but not all have "CONDITIONS NOT MONITORED".

Note 2: The percentage of coverage described in each example falls within the ranges found in paragraph 3.5.

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:		3	3	3	
Contaminant:	13	100% Compacted Snow	100% Compacted Snow	100% Compacted Snow	31

…RWY 31 FICON 25 COMPACTED SNOW...

Translation: Runway 31 is the landing runway and has 25% coverage of compacted snow. A RwyCC is not displayed because there is ≤25% total surface coverage by the contaminant.



…RWY 29 FICON 4/4/4 50 PRCT COMPACTED SN...

Translation: Runway 29, the landing runway, has a RwyCC of "4" in all thirds and is 50% covered by compacted snow. The temperature is warmer than 5°F (-15°C). The depth of the compacted snow is not reported.

…RWY 08 FICON 5/5/5 100 PRCT 1/8IN WET SN...

Translation: Runway 08 is the landing runway, has a RwyCC of "5" in all thirds, and is 100% covered with 1/8 inch (3mm) depth or less of wet snow.

…RWY 28 FICON 3/3/3 100 PRCT 2IN DRY SN OVER COMPACTED SN...

Translation: Runway 28 is the landing runway, has a RwyCC of "3" in all thirds, and is completely covered by 2 inches of dry snow over compacted snow. The depth of compacted snow is not reported.

…RWY 34 FICON 5/5/5 100 PRCT WET PLOWED 100FT WID REMAINDER 4IN WET SN....

Translation: Runway 34 is the landing runway, has a RwyCC of "5" in all thirds, and is 150 feet wide. The center 100 feet has been plowed leaving the plowed surface completely wet. The remaining surface outside of the plowed area is covered by 4 inches of wet snow.

…RWY 01 FICON 4/4/3 25 PRCT COMPACTED SN, 25 PRCT COMPACTED SN, 100 PRCT 2IN DRY SN SWEPT 75FT WID REMAINDER 4IN DRY SN...

Translation: Runway 01 is the landing runway and has a RwyCC of "4" in the first two thirds and "3" in the last third. The runway is 100 feet wide, and the center 75 feet has been swept. The temperature is 5°F (-15°C) or colder. The touchdown and midpoint of the runway have 25% coverage of compacted

snow. The rollout portion of the runway is completely covered by 2 inches of dry snow. The remaining area of Runway 01 is completely covered by 4 inches of dry snow.

Runway Third:		Touchdown	Midpoint	Rollout	
Remainder:		4 Inches Dry Snow			
RwyCC:	01	4	4	3	19
Contaminant:		25% Compacted Snow	25% Compacted Snow	100% 2 Inches Dry Snow	
Remainder:		4 Inches Dry Snow			

…RWY 16 FICON 4/4/4 100 PRCT COMPACTED SN PLOWED 75FT WID REMAINDER 1/2IN DRY SN OVER COMPACTED SN...

Translation: Runway 16 is the landing runway, has a RwyCC of "4" in all thirds, is wider than 75 feet, and the center 75 feet has been plowed. The temperature is 5°F (-15°C) or colder. The plowed portion is 100% covered by compacted snow. The area that has not been plowed has 1/2 inch dry snow over compacted snow. The depth is not reported for compacted snow.

…RWY 16 FICON 3/3/3 100 PRCT COMPACTED SN 8IN SNOWBANKS...

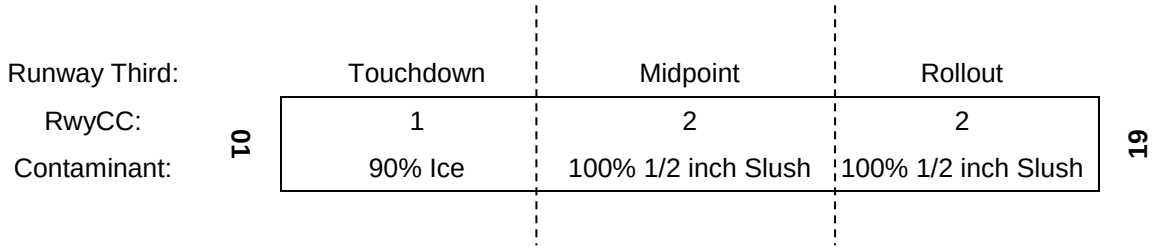
Translation: Runway 16 is the landing runway, has a RwyCC of "3" in all thirds, and has been completely plowed and swept. Therefore, the terms PLOWED or SWEPT are not used. The temperature is warmer than 5°F (-15°C). The runway is 100% covered with compacted snow and has 8 inch snowbanks.

…RWY 33 FICON 4/4/4 100 PRCT COMPACTED SN PLOWED 100FT WID 24IN BERMS...

Translation: Runway 33 is the landing runway, has a RwyCC of "4" in all thirds, and has been plowed 100 feet wide leaving 100% coverage of compacted snow on the runway. The temperature is 5°F (-15°C) or colder. The depth of the compacted snow is not reported, however 24 inch berms are also observed along the edges of the plowed area.

…RWY 01 FICON 1/2/2 90 PRCT ICE, 100 PRCT ½IN SLUSH, 100 PRCT ½IN SLUSH...

Translation: Runway 01 is the landing runway, the RwyCC is "1" in the first third, and "2" in the middle and last thirds, and the touchdown is 90% covered with ice. The midpoint and rollout are 100% covered in 1/2 inch of slush.



…RWY 10 FICON 2/2/2 100 PRCT WATER...

Translation: Runway 10 is the landing runway, has a RwyCC of "2" in all thirds, and is 100% covered by water with greater than 1/8 inch (3mm) depth of water.

Note: It is important that airport operators maintain a heightened awareness of runway conditions during periods of heavy rainfall.

…RWY 36 FICON 1/1/1 100 PRCT ICE SANDED...

Translation: Runway 36 is the landing runway, has a RwyCC of "1" in all thirds, is 100% covered by ice and has been treated full length and width with sand. The depth of ice is not reported.

…RWY 11 FICON 5/5/5 100 PRCT 1/8IN DRY SN SANDED 80FT WID...

Translation: Runway 11 is wider than eighty feet, is the landing runway, has a RwyCC of "5" in all thirds, and is 100% covered with 1/8 inch (3mm) depth or less of dry snow and also has been treated with sand eighty feet wide.

…RWY 30 FICON 5/5/5 100 PRCT WET DEICED LIQUID...

Translation: Runway 30 is the landing runway, has a RwyCC of "5" in all thirds, is 100% wet and has also been treated with a liquid deicing chemical.

Note: When reporting a runway treated by sanding or deicing, the entire published dimensions of the surface are assumed to be treated unless qualifying length/width information is also given. When reporting deicing, also report the material used as either solid or liquid, as this may have operational significance to the pilot.

3.7.5 **Taxiway/Apron/Holding Bay FICON.**

!LGA LGA TWY C, C1, C6, TWY D BTN RWY 13/31 AND TWY C FICON 1/2IN DRY SN OVER ICE OBSERVED AT 1701040230 1701040300-1701050300.

Translation: The specified LaGuardia taxiways have 1/2 inch of dry snow over ice.

Note: The depth of the contaminant on an apron/ramp/holding bay is not required when reporting the conditions of airports that are not certificated under Part 139 or not federally obligated.

…TWY ALL FICON DRY PLOWED 50FT WID REMAINDER 6IN DRY SN...

Translation: All taxiways are plowed 50 feet wide and are dry. The edges that have not been plowed have 6 inches dry snow.

…TWY ALL FICON WET 18IN SNOWBANKS...

Translation: All of the taxiways are wet, with snowbanks reaching 18 inches in depth off the edge of the paved surface.

Note: When reporting snowbanks, indicate the depth and location of the snow bank. Use the terms "SNOWBANKS," "BERMS," or "WINDROWS" after the surface condition. Snowbanks are assumed to be at the edge of a movement surface or, when plow/sweeper is used, at the edge of the plowed/swept area.

…TWY ALL FICON FROST...

Translation: Frost is observed completely covering all taxiways.

…TWY ALL EXC TWY G FICON 1/4IN SLUSH...

Translation: All of the taxiways except taxiway G are completely covered by 1/4 inch of slush.

Note: The depth of the contaminant is not required when reporting the conditions of airports that are not certificated under Part 139 or not federally obligated.

…APRON FEDEX FEEDER RAMP FICON 2IN DRY SN...

Translation: The FedEx Feeder ramp is covered by 2 inches of dry snow.

…APRON FEDEX FEEDER RAMP FICON ICE...

Translation: The FedEx Feeder Ramp is covered with ice. The depth of ice is not reported.

Note: The depth of the contaminant on an apron/ramp is not required when reporting the conditions of airports that are not certificated under Part 139 or not federally obligated.

3.8 **Plowed and Swept Reporting.**

3.8.1 When reporting a portion of a runway as being plowed, give the width plowed in feet and the runway's condition if not entirely cleared.

…RWY 16 FICON 3/3/3 100 PRCT 1/4IN WET SN PLOWED 100FT WID 6 IN BERMS...

Translation: Runway 16 is the landing runway, has a RwyCC of "3" in all thirds, and has been plowed 100 feet wide leaving 100% coverage of ¼ inch wet snow on the plowed portion of the runway. In addition, 6 inch berms are observed along the edges of the plowed area.

Runway Third:		Touchdown	Midpoint	Rollout	
Remainder:		6 Inch Snow Berms			
RwyCC:	16	3	3	3	34
Contaminant:		100% ¼ Inch Wet Snow	100% ¼ Inch Wet Snow	100% 1/4 Inch Wet Snow	
Remainder:		6 Inch Snow Berms			

3.8.2 Use the term PLOWED in a NOTAM if a portion of the surface has been plowed.

3.8.3 If the whole surface has been plowed, PLOWED is not used although reporting the surface contaminant conditions will still be appropriate.

3.8.4 Use PLOWED/SWEPT when indicating that a portion of a surface is plowed or swept and has depth, coverage, and conditions different than the surrounding area. When known, specify and list the surrounding area as "Remainder" after the plowed information.

3.8.5 Omit PLOWED /SWEPT when the entire runway, taxiway, ramp, or apron has been plowed. When just portions are PLOWED/SWEPT, report the portions that are

PLOWED/SWEPT in terms of the number of feet impacted and report the remainder for the depth and contaminants type.

3.9 **Miscellaneous FICON (Mud, Ash).**

!LGA LGA RWY 01R FICON 50 PRCT 2IN MUD, DRY, DRY. OBSERVED AT 1701040230 1701040300-1701050300.

Translation: LaGuardia airport Runway 01R is the landing runway and the touchdown portion of the runway is 50% covered with 2 inches of mud. The remaining midpoint and rollout portions of the runway are contaminant free.

Note: When mud or ash is listed as a contaminant, no RwyCC will be generated.

…RWY 01L FICON 100 PRCT ASH...

Translation: Runway 01L is the landing runway and is 100% covered with ash.

3.10 **Slippery When Wet Runway Procedures.**

For runways where a friction survey (conducted for pavement maintenance) failed to meet the minimum friction level classification specified in AC 150/5320-12, the airport operator must report, via the NOTAM system, a RwyCC of "3" for the entire runway (by thirds: 3/3/3), and followed it with the term "SLIPPERY WHEN WET" when the runway is Wet. Do not report a "Wet" runway when a "SLIPPERY WHEN WET" NOTAM is in effect. This may cause confusion by unnecessarily advertising two sets of condition codes. "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 AC 150/5320-12. Some contributing factors that can create this condition include rubber buildup, groove failures/wear, and pavement macro/micro textures.

Note: If airport operator judgment deems a downgrade is necessary, the downgrade must be made, such that all three runway thirds match (i.e. 3/3/3, 2/2/2, and 1/1/1). An airport may discontinue the use of this NOTAM when the runway minimum friction level classification has been met or exceeded. This is the only contaminant that is reported using both runway designators.

…RWY 01/19 FICON 3/3/3 SLIPPERY WHEN WET…

Translation: The touchdown portion of Runway 01/19 is covered by rubber. Although the rubber is only observed at the approach end of Runway 01, when rubber is on a runway surface, the entire surface is reported as slippery when wet.

…RWY 01/19 FICON 2/2/2 SLIPPERY WHEN WET…

Translation: The same runway has more than 1/8 inch of water present on the surface as a result of a heavy rate of rainfall and/or standing water.

3.11 Braking Action (Taxiways, Aprons, and Holding Bays).

Airport operators may report vehicle braking action on taxiway(s), apron(s), and holding bay(s) as Good to Medium, Medium, Medium to Poor, and Poor. Braking action, when reported by the airport operator, refers to vehicle braking and can be applied as a report for surfaces other than the runway. Report the worst braking action encountered on a given taxiway, apron/ramp, or holding bay. When reporting braking actions, do not give the type of vehicle making the report to avoid any bias in reporting.

Note: Airport operators are advised not to correlate friction readings (Mu numbers) to Good, Good to Medium, Medium, Medium to Poor, Poor, or Nil runway surface conditions, since no consistent, usable correlation between Mu values and these terms has been shown to exist to the FAA's satisfaction. It is important to note that while manufacturers of the approved friction measuring equipment may provide a table that correlates braking action to Mu values, these correlations are not supported by the FAA.

3.11.1 Taxiway FICON.

!DEN DEN TWY AA FICON BA MEDIUM OBSERVED AT 1701040230 1701040253-1701050253

Translation: Denver Taxiway AA vehicle braking action is Medium with an observed at time.

…TWY B FICON BA POOR…

Translation: Taxiway Bravo FICON vehicle braking action is reported as Poor.

3.11.2 Apron FICON.

…APRON MAIN APN FICON BA POOR...

Translation: The main apron FICON has vehicle braking action of Poor.

3.12 **Pilot Reported Braking Action.**

A Pilot Reported Braking Action (PIREP) is an aircraft braking report and will typically provide other pilots with a degree/quality of observed braking. The braking action observed is dependent on the type of aircraft, aircraft weight, touchdown point, and other factors. Pilots will use the terms Good, Good to Medium, Medium, Medium to Poor, Poor, and Nil.

3.12.1 A braking action report from a landing aircraft should be processed as a PIREP. However, when receiving a PIREP, the recipient should consider that PIREPs rarely apply to the full length of the runway and are limited to the specific sections of the runway surface in which wheel braking was applied. There is no correlation between PIREPs from different aircraft types. The airport operator has the authority to combine airport surface condition reports with PIREP information to assist in determining FICON.

3.12.2 Airport operators are encouraged to input any PIREP information received within 15 minutes of the assessment currently being reported in NOTAM Manager or E-NOTAM II. This information should be entered under the pilot reported braking action information menu. The pilot reported braking action can be selected from the dropdown menu and the type of aircraft from which the PIREP originated is typed into the text box. For example, the PIREP received by the airport operator was "Good to Medium by a Boeing-737 aircraft". This information will not be reported via the NOTAM system and simply being recorded in the NOTAM system to provide data for analysis to determine any necessary modification to the RCAM as it relates to contaminants and airplane performance.

3.12.3 The RCAM upgrade criteria does not apply to pilot reported braking action reports of Nil.

Note: A Nil pilot reported braking action, or Nil braking action assessment by the airport operator, indicates a potentially unsafe condition. An acceptable action is for the airport operator to promptly close the particular surface prior to the next flight operation (and NOTAM that closure) until the airport is satisfied that the Nil condition no longer exists. This is a requirement at certificated and federally-obligated airports.

3.13 **"Conditions Not Monitored" NOTAMs.**

3.13.1 Airport operators should use "conditions not monitored" NOTAMs as a way to provide information to pilots related to the conditions not being monitored at the airport,

perhaps due to operations hours or staffing. This standard has existed for airport operators to use over the years and is appended to the last FICON an airport would issue prior to ending snow and ice control operations.

3.13.2 Airport operators should avoid using "airport unattended" NOTAMs as a substitute for "conditions not monitored" because this type of NOTAM sends the incorrect message that other services provided by the airport, e.g. ATC, ARFF, fuel, are not available or accessible when the conditions are not being monitored.

3.13.3 The "Conditions not monitored" NOTAM is the preferred airport condition reporting for airport operators to use to address movement areas or airfield surfaces. When the field conditions will not be monitored, follow the most recent observation with the words "Condition not monitored (date/time) (date/time)." The time parameters specified must fall within the effective expiration times. FICON NOTAMs are considered temporary, therefore the expiration time for FICON NOTAMs must not exceed 24 hours from the effective time, except when the reported contaminant is Ash, Mud, Oil, Rubber, or Sand.

3.13.4 Airport operators should issue the "conditions not monitored" NOTAM accompanied with the most recent observation.

Example:

!LGA LGA RWY 13 FICON 1/1/1 100 PRCT ICE OBSERVED AT 1701040230. CONDITIONS NOT MNT 1701040300-1701061045. 1701040253-1701061115

Translation: LaGuardia Runway 13 is the landing runway and is 100% covered by ice. The RwyCC is 1/1/1. The field conditions are not monitored from January 4, 2017 0300UTC through January 6, 2017 1045UTC. The airport operator expects to have a new NOTAM submitted by January 6, 2017 1115UTC.

3.13.5 The airport operator can submit for publication a note stating conditions are not monitored between the hours of "X" and "Y" in the Chart supplement or their Airport Master Records and Reports (5010).

3.14 "Surface Conditions Not Reported" NOTAMs.

When it is determined that no surface condition reports will be taken for longer than a 24-hour period, issue a single NOTAM for the entire time-period. Use the phrase "SFC CONDITONS NOT REPORTED", as this differs from Conditions Not Monitored. The difference between SFC Conditions Not Reported and Conditions Not Monitored is that SFC Conditions Not Reported is an aerodrome (AD) NOTAM and is for an extended period of time. Conditions Not Monitored is a field conditions (FICON) NOTAM that is accompanied with the most recent observation. This is used to report brief periods of time when conditions will not be monitored. If the airport has published a set schedule when conditions are not monitored in the Airport Master Record, a "SFC Conditions Not Monitored" NOTAM is not necessary to reflect these same hours.

Example:

!CWA CWA AD AP SFC CONDITIONS NOT REPORTED 1701062200-17090500

Translation: Central Wisconsin airport surface conditions are not being reported January 6, 2017 2200UTC until January 9, 2017 0500UTC.

3.15 **Runway Light Obscuration or Outages.**

The NOTAM sentence structure for issuing keyword NOTAMs for lighting that is obscured and/or out of service is Keyword; Feature, Service, Facility or System; Descriptive comments about Feature, Facility, Service or System; Condition; and Other Comments. The elements Keyword, Feature, Service, Facility, System and Condition are mandatory; all other elements are included as needed. The paragraphs below provide some examples and plain text translations. Not all NOTAMs will contain all of the elements.

3.15.1 Runway Light Obscuration.

When reporting runway light obscuration due to snow and ice, report just the lights that are completely obscured.

1. Do not report lights that are partially obscured.
2. Be specific about which lights are affected, such as Runway 09/27 W 2000 feet.
3. Do not report the reason for the obscuration.

!BTV BTV RWY 15/33 EDGE LGT OBSC 1710131300-1710141300

Translation: Burlington airport Runway 15/33 has edge lights obscured with a self-cancelling expiration time.

3.15.2 Runway and Affiliated Light Outages.

3.15.2.1 **Runway Centerline Lights (RCLL).**

!ATL ATL RWY 08R/26L RCLL OUT OF SERVICE 1705112300-1705131200

Translation: Atlanta airport Runway 08R/26L center line lights are out of service with a self-cancelling expiration time.

3.15.2.2 **Touchdown Zone Lights (RTZL LGT).**

!ATL ATL RWY 08R TDZ LGT OUT OF SERVICE 1705112300-1705131200

Translation: Atlanta Runway 08R touchdown zone lights are out of service with a self-cancelling expiration time.

3.15.2.3 **Runway Edge Lights.**

!ATL ATL RWY 08R/26L REDL OUT OF SERVICE 1705112300-1705120400

Translation: Atlanta airport Runway 08R/26L edge lights are out of service with a self-cancelling expiration time.

Note: When commissioning runway edge light systems, indicate the exact type of system; for example, LIRL, MIRL, HIRL, etc. Once commissioned and published, runway edge lights are then shown as EDGE LGT.

3.15.2.4 **Runway Lead-In Lighting System (RLLS) formerly LDIN.**

!DCA DCA RWY 19 RLLS OUT OF SERVICE 1705112300-1705131200

Translation: Washington Reagan airport Runway 19 runway lead-in lighting system is out of service with a self-cancelling expiration time.

3.15.2.5 **Airport Total Runway Power Failure.**

!SPA SPA AD AP LGT ALL OUT OF SERVICE 1705112300-1705131200

Translation: Spartanburg airport all aerodrome lights are out of service with a self-cancelling expiration time.

Note: See the use of the keyword "AD" for any total aerodrome light outage situation.

3.15.2.6 **Pilot Controlled Lighting (PCL).**

These examples discuss controlling runway or approach lights.

!SBY SBY SVC PCL ALL OUT OF SERVICE 1705112300-1705131200

Translation: Salisbury airport pilot control lights are out of service a self-cancelling expiration time.

…SVC PCL FREQ CHANGED TO 122.8 1705112300-PERM

Translation: Pilot control lights frequency has changed to 122.8 with an effective date that makes it a permanent change.

…SVC PCL RWY 18 VASI OUT OF SERVICE 1705112300-1705131200

Translation: Runway 18 pilot control VASI is out of service with a self-cancelling expiration time.

3.16 **Other Reportable Conditions.**

3.16.1 The airport operator ensures that a NOTAM is submitted for conditions considered hazardous or potentially hazardous to the aircraft operator. Permanent changes in surface conditions are coordinated for publication based on defined criteria in FAA Order JO 7930.2.

3.16.2 Some examples of other reportable conditions are as follows:

!TSG TSG RWY 12/30 NUMEROUS 3IN CRACKS 1704050100-1704301700

Translation: Tanacross airport Runway 12/30 has numerous 3 inch cracks with a reported discovery date and a self-cancelling expiration time.

…AD AP BIRD ACTIVITY NW SIDE 1509151335-1509301200

Translation: Bird activity on the northwest side of the airport according to a self-cancelling expiration time.

… AIRSPACE CONTROLLED BURN WI AN AREA DEFINED AS .5NM RADIUS OF FXE360001 SFC-1500FT 1707042300-1707050100

Translation: Airport is executing a controlled burn on the airport causing dense smoke for a given time period.

Note: Some airport operators may not be authorized to submit airspace NOTAMs for controlled burns. Direct contact with FSS may be required to issue this type of NOTAM.

3.16.2.1 **Signage.**

!IAD IAD TWY U7 HLDG PSN SIGN FOR RWY 01L/19R NOT LGTD 1705112300-1705131200

Translation: Dulles airport holding position sign on taxiway U7 for runway 01L/19R is not lighted for a date and period indicated and with a self-cancelling expiration time.

…SFC PAINTED HOLDING POSITION SIGN NOT STD DUE TO REPAINTING 1709271200-1709302300

Translation: Surface painted holding position signs are not standard due to repainting to be started and completed on a specific date with a self-cancelling expiration time.

3.16.2.2 **Taxiway Lights.**

!SHL SHL TWY K, L EDGE LGT OUT OF SERVICE 1705112300-1705131200

Translation: Sheldon airport taxiway(s) K & L edge lights are out of service beginning at a certain period with a self-cancelling expiration time.

…TWY C STOP BAR LGT FOR RWY 16R/34L AND FOR EAST SIDE RWY 16L/34R OUT OF SERVICE 1705112300-1705131200

Translation: Taxiway C stop bar lights for Runway 16R/34L and for the east side Runway 16L/34R are out of service for a date and period indicated with a self-cancelling expiration time.

3.17 **Runway Thresholds and Declared Distances.**

The NOTAM sentence structure for issuing keyword NOTAMs associated with threshold displacement is: "RWY", Designator; "THR DISPLACED"; Distance Displaced "FT"; Other Comments; "TORA__FT"; "TODA__FT"; "ASDA__FT"; and "LDA__FT". The NOTAM sentence structure for issuing keyword NOTAMs associated with declared distances is: "RWY", Designator; "TORA__FT"; "TODA__FT"; "ASDA__FT"; and "LDA__FT". All of those elements are mandatory except the "Other Comments" element in Displaced Threshold NOTAMs. The paragraphs below provide some examples and plain text translations illustrating the structure of these NOTAMs. Not all NOTAMs will contain all of the elements.

3.17.1 A displaced threshold affects runway length available for aircraft landing over the displacement. Report threshold displacement as closure of a portion of the runway until the actual physical appearance is altered so the closed runway segment no longer looks like a landing area. Consult with the responsible FAA Flight Procedures office when displacing a threshold because the resulting displacement may result in instrument flight procedures to the runway being impacted.

3.17.2 When a runway condition restricts or precludes the use of any portion of a runway resulting in a change to the declared distances, include the published take-off run available (TORA), take-off distance available (TODA), accelerated stop distance available (ASDA), and landing distance available (LDA) in the NOTAM. Ensure that a second NOTAM is originated for the reciprocal runway with all declared distances if any value has changed. Coordinate with the appropriate FAA Airports Regional or District Office to have declared distances information published. See AC 150/5300-13, *Airport Design,* for guidance on the use of declared distances.

!MKC MKC RWY 19 THR DISPLACED 300FT MARKING NOT STD. DECLARED DIST: TORA 6827FT TODA 6827FT ASDA 6827FT LDA 6527FT. 1706011500–1707141600

!MKC MKC RWY 01 DECLARED DIST: TORA 6827FT TODA 6827FT ASDA 6527FT LDA 6527FT 1706011500 -1707141600

Translation: Kansas City airport Runway 19 threshold is displaced 300 feet, therefore the Runway 19 landing LDA is reduced by 300 feet. The LDA and ASDA for Runway 01 are also reduced by 300 feet. An established self-cancelling expiration time has been established.

… RWY 28R THR DISPLACED 1500FT. DECLARED DIST: TORA 13001FT TODA 13001FT ASDA 13001FT LDA 11501FT. 1706110300–1706130600

… RWY 10L DECLARED DIST: TORA 13001FT TODA 13001FT ASDA 11501FT LDA 11501FT 1706110300–1706130600

Translation: A temporary structure becomes a controlling obstacle to the approach of Runway 28R and departure of Runway 10L resulting in the Runway 28 threshold being displaced 1500 feet resulting in changes to declared distances for Runways 10L and 28R. An established self-cancelling expiration time has been established for each runway.

… RWY 05/23 NE 500FT CLSD. DECLARED DIST: RWY 05 TORA 7002FT TODA 7002FT ASDA 7002 FT LDA 7002 FT RWY 23 TORA 7002FT TODA 7002FT ASDA 7002 FT LDA 7002FT 1706110300–1706112100

Translation: Construction on Runway 05 requires 500 feet to be closed to protect a construction area thus changing declared distances to Runways 05 and 23. An established self-cancelling expiration time has been established.

… RWY 09/27 W 500FT CLSD FOR TKOF. DECLARED DIST: RWY 09 TORA 8446FT TODA 8446FT ASDA 8446FT LDA 8446FT. RWY 27 TORA 8946FT TODA 8946FT ASDA 8246FT LDA 8246FT. 1706110300–1706112100

Translation: The west 500 feet of Runway 09 is closed. Aircraft will enter the runway and depart Runway 09 from an intersecting taxiway. Because the NOTAM uses both runways as the runway designator, if any declared distance has changed, all declared distances for both runways are to be included in the NOTAM. An established self-cancelling expiration time has been established.

3.17.3 In the event the published TORA, TODA, ASDA, and LDA need to be reported without referencing the runway condition that caused the change, report declared distances or changes to published declared distances. For example, when the published runway length is changed, report the declared distances or correct any erroneous declared distances currently published.

!CLT CLT RWY 05/23 DECLARED DISTANCES: RWY 05 TORA 7502FT TODA 7502FT ASDA 7202FT LDA 7202FT. RWY 23 TORA 7502FT TODA 7502FT ASDA 7202FT LDA 7202FT. 1707140300–PERM

Translation: Charlotte airport Runway 5 and Runway 23 have permanent changes to their runway distances.

… RWY 08/26 DECLARED DISTANCES: RWY 08 TORA 10000FT TODA 10500FT ASDA 10000FT LDA 10000FT. RWY 26 TORA 10000FT TODA 10000FT ASDA 10400FT LDA 11000FT. 1706110300–PERM

Translation: A temporary or permanent situation at an airport with nonstandard Runway Safety Areas or Object Free Area leads to defining declared distances.

… RWY 08/26 NOW 10000FT X 150FT DECLARED DIST: RWY 08 TORA 9000FT TODA 9500FT ASDA 9000FT LDA 9000FT. RWY 26 TORA 9000FT TODA 9000FT ASDA 9400FT LDA 10000FT. 1706110300–PERM

Translation: A NOTAM is required to correct an error in the Chart supplement until the next publication date.

3.18 **On or Off Airport Obstructions and Obstruction Lights.**

The NOTAM sentence structure for issuing keyword NOTAMs associated with obstructions and obstruction lights is: "OBST"; Type of Obstruction; ASR Number, if FCC Tower Light; ASN Number for all other obstructions, if Tower Light; Coordinates; Alternate Location Description; Height (MSL) "FT"; Height "FT AGL"; Condition; and Other Comments. The elements "OBST; Type of Obstruction; ASR Number/ASN Number; Coordinates; and HEIGHT (MSL) are mandatory elements; all other elements are included as needed. The paragraphs below provide some examples and plain text translations illustrating the structure of certain NOTAMs. Not all NOTAMs will contain all of the elements.

3.18.1 Obstructions such as towers, cranes, stacks, wind turbines, non-FCC towers, and power-lines should have ASN numbers. Any failure or malfunction which affects a top light or flashing obstruction light regardless of its position is a condition for a NOTAM.

3.18.2 Height is identified as MSL (when known) and may be accompanied with an AGL height listed in parenthesis.

3.18.3 Cranes that are marked by a flag or when the boom is lowered during night hours, periods of low visibility, do not exceed any obstruction standards contained in 14 CFR Part 77, and removed beyond the runway or taxiway safety areas may not require a NOTAM. At Part 139 airports, cranes not in use and located beyond the Runway Object Free Area may not be NOTAMed; provided they meet all the same criteria as cited above. Comply with the Airspace Determination requirements for NOTAMS for on-airport cranes and construction activity.

3.18.4 Obstruction lights on terrain (hills) are identified as MSL.

3.18.5 When reporting an obstruction or obstruction light(s) failure located within the airport boundaries, identify the outage per the following:

1. Height, MSL and AGL if known.
2. Distance from the Airport Reference Point (ARP) (nautical miles).
3. Direction from the Airport Reference Point (ARP) (16 point compass: N; NNE; NE; ENE; E; ESE; SE; SSE; S; SSW; SW; WSW; W; WNW; NW; NNW).
4. Tower registration number or Antenna Structure Registration (ASR) number (if applicable). The tower registration number can be found at wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp.

3.18.6 All obstruction light outages within a 5 statute miles (SM) (4.3 nautical miles) radius of an airport, or obstruction light outages outside a 5SM radius that exceed 200 feet above ground level (AGL). When able, report outages to the limits of the 14 CFR Part 77 surfaces of the airport.

!GSP GSP OBST TOWER LGT (ASR 1234567) 345313.12N0815744.34W (3NM SSW SPA) 1528FT (564FT AGL) OUT OF SERVICE 1710291200-1711131200

Translation: Greer airport is reporting a tower obstruction light at a specific lat/long and 3NM SSW of Spartanburg is out of service with a specific date and time for return to service.

… OBST TOWER LGT (ASR 1234567) 420651.07N0817546.27W (12NM N PWK) 1049FT (330FT AGL) OUT OF SERVICE 1709151600-1709301600

Translation: Airport reports an obstruction tower light at a specific lat/long and within 12NM of Waco with identified above ground level height is out of service for an established date and time.

3.18.7 When the obstacle is within 500 feet either side of the centerline of a charted helicopter route, describe the plain language location by using the bearing, distance, and aerodrome designator of the nearest public-use airport. When able, report outages to the limits of the 14 CFR Part 77 surfaces of the airport. An Aeronautical Study Number (ASN), if known, should be included in parentheses in the NOTAM. If the ASN is not known, use parentheses to indicate (ASN UNKNOWN) in the NOTAM. See examples below:

!RDU RDU OBST CRANE (ASN 1234567) 345140N0804506W (1.44NM SW RDU) 580FT (195FT AGL) NOT LGTD 1711292300-1711302300

Translation: Raleigh/Durham airport reports a crane at identified lat/long with cardinal direction from the lat/long that delineates the height and the crane being unlighted for a given time period.

… OBST WIND TURBINE (ASN UNKNOWN) 452315N0701346W (18.4NM SW BGR) 2820FT (410FT AGL) NOT LGTD 1711302330-1712172359

Translation: Airport reports a wind turbine within a identified lat/long with a given height above ground level and not lighted for a set time period. A self-cancelling expiration time has been established.

3.18.8 ASR number should be obtained from the tower owner when the outage is called in, and will be put in the text of the NOTAM. The ASR number may also be obtained from the FCC website at wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp.

Note: See AC 70/7460-1, *Obstruction Lighting and Marking,* for additional guidance about obstruction light failure notification requirements.

3.18.9 Persons or organizations that operate an obstruction are responsible for reporting the improper functioning of any obstruction light or lights immediately by telephone to the nearest local FSS. Callers should be prepared to provide the tower registration number (ASR number) and the name of the nearest airport.

3.18.9.1 Reporting the operating status of obstruction lights on communication towers is the responsibility of the communication tower operator (47 CFR § 17.48).

3.18.9.2 If there is a report of an obstruction light outage on a tower outside the airport, airport operators with the responsibility of initiating NOTAMs should:

1. First check for any existing Flight Safety NOTAMs via the FSS or at http://notams.aim.faa.gov/notamSearch/.
2. If NOTAMs are not found, contact and advise the tower operator about the outage.
3. If the tower operator is not known, look up the information on the FCC website at wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp.

CHAPTER 4. SELECT NOTAM REQUIREMENTS CRITERIA

4.1 Work In Progress (WIP).

Use the work in progress criteria for routine maintenance events such as mowing, snow removal operations, and various types of short term infrastructure maintenance and repairs. A particular surface should be closed as defined in each airport's *Airport Certification Manual* for work that goes beyond routine maintenance. The NOTAM sentence structure for issuing keyword NOTAMs associated with WIP is Keyword; Feature, Service, Facility or System; Descriptive Comments about Feature, Facility, Service or System; Condition; and Other Comments. The elements Keyword, Condition, Feature, Service, Facility or System are mandatory; the other elements are included as needed. The paragraphs below include some examples and plain text translations that illustrate certain WIP NOTAMs. Not all NOTAMs will contain all of the elements. Note that WIP is only used when the work is occurring.

4.1.1 Content of NOTAMs for WIP.

4.1.1.1 Any NOTAM associated with WIP on or adjacent to a runway, taxiway, or apron are to begin with one of the following keywords: RWY, TWY, APRON, or AD. Additionally, if the work is proceeding in a particular direction, that should be specified.

4.1.1.2 The NOTAM text would include the surface name/designator, the specified name/designator of the surface on which the work is being conducted, and the surface segment description specified in feet or from a specific point to point.

4.1.2 Snow/Ice Removal.

Any NOTAM associated with snow/ice removal operations on multiple runways are to be described as "WIP (reason);" for example, SNOW REMOVAL, ICE REMOVAL. (See paragraph 4.1.) Airport operators are to ensure this NOTAM remains active when actual snow and ice removal operations are taking place. An individual NOTAM for each runway impacted is issued as the work in progress moves from one runway to the next. In order to ensure the safety and efficiency of this snow removal operation, all of the following conditions should be met before proceeding:

4.1.2.1 The air traffic control tower is in operation during the valid period of each NOTAM. For non-towered airports, communication via a secondary control center or use of Common Traffic Advisory Frequency or other local communication means may be used during the valid period of each NOTAM.

4.1.2.2 Closure times for each runway have been agreed upon by the airport operator, overlying air traffic facility/ATCT or other local airport control centers during the valid period of each NOTAM.

4.1.2.3 Operations are based on the process described in the Airport Certification Manual, Snow and Ice Control Plan, or other agreement between the airport operator, FSS, overlying air traffic facility, Air Traffic Control Tower, or other local airport control centers as applicable. Some examples of WIP NOTAMs are as follows:

…AD AP ALL SFC WIP SN REMOVAL 1712070700-1712101500

Translation: All aerodrome surfaces have snow removal work in progress for time given.

Note: Any NOTAM associated with snow/ice removal are to be described as "Work in Progress (reason)," (for example, Snow Removal, Ice Removal). Airport operators must ensure this NOTAM remains active when actual snow and ice removal operations are taking place.

…RWY 01L/19R WIP RESURFACING 1709070700-1709101500

Translation: Runway 01L/19R has resurfacing work in progress for the time given.

…TWY A WIP ELECTRICAL LINE TRENCHING 1709070800-1709101400

Translation: Taxiway Alpha has electrical lines trenching work in progress for the time given.

!IAD IAD RWY 01L/19R NE 500FT WIP MOWING ADJ 1709070700-170910150

Translation: Dulles airport Runway 01L/19R has mowing on 500 feet of the northeast end underway for the specific time provided.

…TWY E BTN RWY 05/23 AND TWY A WIP TRENCHING SOUTH SIDE 1709070700-1709101500

Translation: Airport has work in progress trenching on taxiways near Runway 05/23 for an identified time period.

…TWY D4, D5, D6, TWY B BTN RWY 13/31 AND TWY D, TWY D WEST OF RWY 05/23 WIP SN REMOVAL 1712070700-1712101500

Translation: Airport has work in progress snow removal involving the specified taxiways in proximity to Runway 13/31 and Runway 05/23 for an identified time period.

…APN FEDEX APRON W HALF WIP RESURFACING 1709070700-1709101500

Translation: Airport apron has apron work in progress resurfacing on the west half for an identified time period.

…RWY 01L/19R WIP MAINT VEHICLES ADJ E SIDE OF RWY 1709070700-1709101500

Translation: Airport has work in progress on runway 01L/19R involving maintenance vehicles on the east side for an identified time period.

…RWY 01L/19R WIP SN REMOVAL 1712070700-1712101500

Translation: Runway 01L/19R has work in progress involving snow removal for an identified start and completion time.

4.2 **Certificated Airport Aircraft Rescue and Fire Fighting (ARFF).**

4.2.1 Title 14 CFR Part 139 requires NOTAM (D) for airports (not runways) when ARFF equipment is inoperative or unavailable and replacement equipment is not available. Except as indicated in Part 139.319(c), the airport operator has 48 hours to replace or substitute equipment before the index changes. Air carriers and others are to be notified that ARFF equipment is out of service. The airport operator is responsible for providing an ending time for each NOTAM. If the airport operator does not provide an ending time, FSS will add 48 hours to the time of receipt and publish the appropriate NOTAM.

4.2.2 The NOTAM sentence structure for issuing keyword NOTAMs associated with ARFF equipment outages is Keyword; Feature, Service, Facility or System; Descriptive Comments about Feature, Facility, Service or System; Condition; and Other Comments. The elements Keyword, Condition, Feature, Service, Facility or System are mandatory; all other elements are included as needed. The paragraphs below provide some examples and plain text translations illustrating the structure of certain ARFF NOTAMs. Not all NOTAMs will contain all of the elements.

4.2.3 <u>ARFF Index</u>.

4.2.3.1 The ARFF Index for each certificated airport is published in the Chart supplement. In the Chart supplement legend is a list that indicates Index and corresponding ARFF equipment requirements. At certificated airports listed in the Chart supplement, the certificate holder (airport operator) is required to notify air carriers by NOTAM when required ARFF equipment is inoperative or unavailable and replacement equipment is not readily available. If the required Index level of capability is not restored within 48 hours, the airport operator is required to limit air carrier operations to those compatible with the index corresponding to the remaining operative rescue and firefighting equipment.

4.2.3.2 Permanent changes to the ARFF Index occurring during publication cycles are issued as FDC NOTAMs.

4.2.3.3 If the ARFF vehicle is still out of service after 48 hours, the airport operator is to submit a NOTAM or notify the FSS of a temporary index change and approximate duration time.

!FTW FTW AD AP ARFF NOW INDEX A 1709072300-1709092300

Translation: At Fort Worth Meacham International airport the ARFF Index is now A, with an established self-cancelling expiration time.

… AD ARFF NOT AVBL 1710021200-1710121200

Translation: Airport ARFF is not available for an identified self-cancelling expiration time.

4.3 Engineered Materials Arresting Systems (EMAS).

The airport operator ensures that a NOTAM is submitted for conditions considered to be hazardous or potentially hazardous to the aircraft operator, such as reporting damage or inoperability of the EMAS installed at the airports. An EMAS NOTAM should be issued when these conditions exists. The NOTAM sentence structure for issuing keyword NOTAMs associated with EMAS equipment outages is Keyword; Feature, Service, Facility or System; Descriptive Comments about Feature, Facility, Service or System; Condition; and Other Comments. The elements Keyword, Condition, Feature, Service, Facility or System are mandatory; all other elements are included as needed. The paragraphs below provide some examples and plain text translations illustrating the structure of certain EMAS NOTAMs. Not all NOTAMs will contain all of the elements.

!MDW MDW RWY 31C ENGINEERED MATERIALS ARST SYSTEM NOT STD 1705141320-1705202200

Translation: Midway airport Runway 31C EMAS system is currently installed but is not standard for a particular time period.

… RWY 31C ENGINEERED MATERIALS ARST SYSTEM OUT OF SERVICE 1709151335-1709301200

Translation: Runway 31C EMAS system is out of service for a standard time period.

APPENDIX A. SAMPLE NOTAM LOG

NOTAM ISSUED

NOTAM#_____ FSS NOTAM# _____

DATE ISSUED_____ TIME ISSUED _____ UTC

ISSUED BY: _____

NOTAM TEXT:

_____

_____

_____

AGENCIES NOTIFIED

ATC Facility _____AIR CARRIER(S) _____FSS _____

FBOs _____ TENANT(S) _____ DoD _____

NOTAM CANCELLED

DATE _____ TIME: _____ UTC

CANCELLED BY: _____

AGENCIES NOTIFIED

ATC Facility _____AIR CARRIER(S) _____FSS _____

FBOs _____ TENANT(S) _____ DoD _____

APPENDIX B. RUNWAY CONDITION ASSESSMENT MATRIX (RCAM)*

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 • Wet (Includes Damp and 1/8 inch depth or less of water) ***1/8 inch (3mm) depth or less of:*** • Slush • Dry Snow • Wet Snow	**5**		Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
5º F (-15ºC) and Colder outside air temperature: • Compacted Snow	**4**	**39 to 30**	Braking deceleration OR directional control is between Good and Medium.	Good to Medium
• Slippery When Wet (wet runway) • Dry Snow or Wet Snow (Any depth) over Compacted Snow ***Greater than 1/8 inch (3mm) depth of:*** • Dry Snow • Wet Snow ***Warmer than 5º F (-15ºC) outside air temperature:*** • 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: • Water • 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] • Slush over Ice[2] • Water over Compacted Snow [2] • 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 27°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.

**Source: AC 150/5200-30, current version, is the source of the RCAM. Any updates to the RCAM in that AC supersede this appendix.*

APPENDIX C. FRICTION MEASURING EQUIPMENT ABBREVIATIONS

ABBREVIATION

BOW Bowmonk Decelerometer (Bowmonk Sales)

BRD Brakementer−Dynometer

ERD Electronic Recording Decelerometer (Bowmonk)

GRT Griptester (Findlay, Irvine, LTD)

MUM Mark 6 Mu Meter (Douglas Equipment LTD)

RFT Runway friction tester (Dynatest)

SFH Surface friction tester (high pressure tire) (SAAB, Airport Surface Friction Tester AB)

SFL Surface friction tester (low pressure tire) (SAAB, Airport Surface Friction Tester AB)

SKH Skiddometer (high pressure tire) (AEC, Airport Equipment Co.)

SKL Skiddometer (low pressure tire) (AEC, Airport Equipment Co.)

TAP Tapley Decelerometer (Tapley Sales)

VER Vericom (VC3000)

RT3 Haliday Technologies

NAC Neubert Aero Corp

Advisory Circular Feedback

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) mailing this form to Manager, Airport Safety and Operations Division, Federal Aviation Administration ATTN: AAS-300, 800 Independence Avenue SW, Washington DC 20591 or (2) faxing it to the attention of the Office of Airport Safety and Standards at (202) 267-5383.

Subject: AC 150/5200-28F Date: _____

Please check all appropriate line items:

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:

_____
_____
_____

☐ In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

_____
_____
_____

☐ Other comments:

_____
_____
_____

☐ I would like to discuss the above. Please contact me at (phone number, email address).

Submitted by: _____ Date: _____